SOME REFLECTIONS ON THE ORIGINS OF MBSR, SKILLFUL MEANS, AND THE TROUBLE WITH MAPS

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The author recounts some of the early history of what is now known as MBSR, and its relationship to mainstream medicine and the science of the mind/body connection and health. He stresses the importance that MBSR and other mindfulness-based interventions be grounded in a universal dharma understanding that is congruent with Buddhadharma but not constrained by its historical, cultural and religious manifestations associated with its counties of origin and their unique traditions. He locates these developments within an historic confluence of two very different epistemologies encountering each other for the first time, that of science and that of the meditative traditions. The author addresses the ethical ground of MBSR, as well as questions of lineage and of skillful 'languaging' and other means for maximizing the possibility that the value of cultivating mindfulness in the largest sense can be heard and embraced and cultivated in commonsensical and universal ways in secular settings. He directly addresses mindfulness-based instructors on the subject of embodying and drawing forth the essence of the dharma without depending on the vocabulary, texts, and teaching forms of traditional Buddhist environments, even though they are important to know to one degree or another as part of one's own development. The author's perspective is grounded in what the Zen tradition refers to as the one thousand year view. Although it is not stated explicitly in this text, he sees the current interest in mindfulness and its applications as signaling a multi-dimensional emergence of great transformative and liberative promise, one which, if cared for and tended, may give rise to a flourishing on this planet akin to a second, and this time global, Renaissance, for the benefit of all sentient beings and our world.

As I will recount a bit further along, mindfulness-based stress reduction (MBSR) was developed as one of a possibly infinite number of skillful means for bringing the dharma into mainstream settings.[1] It has never been about MBSR for its own sake. It has always been about the M. And the M is a very big M, as I attempt to describe in this paper.

That said, the quality of MBSR as an intervention is only as good as the MBSR instructor and his or her understanding of what is required to deliver a truly

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mindfulness-based programme. Much of what is said here, both in this paper, and in the entire issue of the journal is meant to reinforce our collective inquiry into what is involved in maintaining the highest standards of understanding and practice in delivering such programmes in the years ahead, given the exponential rise in interest and activity in this burgeoning field and its attendant risks and opportunities. By necessity, the perspective offered here is inevitably personal, shaped by my own experience over the past four decades. I offer it in the hope that it will prove useful to others and also to further dialogue concerning the meanings and essence of mindfulness, its value and promise in the wider world, the pitfalls attendant with such aspirations, and the challenges we face individually and collectively in the future in developing novel and hopefully skillful avenues and vehicles for moving the bell curve of our society toward greater sanity and wellbeing. In this sense, MBSR was conceived of and functions as a public health intervention, a vehicle for both individual and societal transformation.

When I wrote *Full Catastrophe Living*, nine years after starting the Stress Reduction Clinic, it was very important to me that it capture the essence and spirit of the MBSR curriculum as it unfolds for our patients. At the same time, I wanted it to articulate the dharma that underlies the curriculum, but without ever using the word 'Dharma' or invoking Buddhist thought or authority, since for obvious reasons, we do not teach MBSR in that way. My intention and hope was that the book might embody to whatever degree possible the dharma essence of the Buddha's teachings put into action and made accessible to mainstream Americans facing stress, pain, and illness. This is plainly stated in the Introduction, where I did not shy away from explicitly stating its Buddhist origins. However, from the beginning of MBSR, I bent over backward to structure it and find ways to speak about it that avoided as much as possible the risk of it being seen as Buddhist, 'New Age,' 'Eastern Mysticism' or just plain 'flakey.' To my mind this was a constant and serious risk that would have undermined our attempts to present it as commonsensical, evidence-based, and ordinary, and ultimately a legitimate element of mainstream medical care. This was something of an ongoing challenge, given that the entire curriculum is based on relatively (for novices) intensive training and practice of meditation and yoga, and meditation and yoga pretty much defined one element of the 'New Age.'

Before the book was published, I asked a number of colleagues that I respected to endorse it. Among those I asked was Thich Nhat Hanh, whom I didn't know at the time except through his writings, and in particular, his little book, *The Miracle of Mindfulness* (Hanh 1975), which had a certain plainness and simplicity to it that I admired. In this case, more than hoping for any kind of endorsement, I thought I would simply share with him the direction we were taking and get his sense of it. I didn't actually expect a response. However, he did respond, and offered a statement that I felt showed that he had grasped the essence of the book and the line it was trying to walk. What's more, he expressed it in such an elegant and affirming way that I felt it was a gift, and that it would be disrespectful, having asked for it, not to use it. However, I did think twice about it. It precipitated

something of a crisis in me for a time, because not only was Thich Nhat Hanh definitely a Buddhist authority, his brief endorsement used the very foreign word *dharma* not once, but four times. Yet what he said spoke deeply and directly to the essence of the original vision and intention of MBSR. I wondered: 'Is this the right time for this? Would it be skillful to stretch the envelope at this point? Or would it in the end cause more harm than good?' In retrospect, these concerns now sound a bit silly to me. But at the time, they felt significant.

At the same time, I found myself pondering whether such concerns might not have become a bit outmoded by then. Perhaps by 1990 there was no longer such a strong distinction between the so-called New Age and the mainstream world. So many different so-called counter-cultural strands had penetrated the dominant culture by then that it was hard to make any binary distinctions about what was mainstream and what was fringe. Advertising alone was materializing and commercializing everything, exploiting even yoga and meditation for its own ends. In the process, it was breaking down conventional stereotypes while simultaneously creating new ones. The world was shifting rapidly, even before the impending global emergence of the internet with its constantly accelerating onslaught of information and its effects on our minds and our pace of life. Perhaps there was no longer as big a risk of our work being identified with a 'lunatic fringe.' Perhaps there was already enough evidence in support of the efficacy of MBSR to open the door at least a bit to expanding the ways in which I could articulate its origins and its essence—not so much to the patients, but to the growing number of health professionals becoming interested in mindfulness and its clinical applications. Perhaps it was important to be more explicit about why it might be valuable to bring a universal dharma perspective and means of cultivating it into the mainstream world.[2]

And so, in the end, I decided to use Thich Nhat Hanh's words and to put them up front, with his permission, as the preface to the book. It was a simple extension of something I had already been doing for many years when giving lectures (at medical and psychiatry grand rounds) at medical centres around the country, as well as in public talks. In the mid 1980s I had begun using a series of slides that included a photograph of the great Buddha statue in Kamakura, Japan, and finding simple and matter-of-fact ways to articulate for professional and lay audiences the origins and essence of those teachings—how the Buddha himself was not a Buddhist, how the word '*Buddha*' means one who has awakened, and how mindfulness, often spoken of as 'the heart of Buddhist meditation,' has little or nothing to do with Buddhism per se, and everything to do with wakefulness, compassion, and wisdom. These are universal qualities of being human, precisely what the word *dharma*, is pointing to. The word has many meanings, but can be understood primarily as signifying both the teachings of the Buddha and the lawfulness of things in relationship to suffering and the nature of the mind.

Now, more than 30 years after the founding of the Stress Reduction Clinic, the very existence of this special issue, as well as so many other interfaces at which such conversations and studies are taking place (see Kabat-Zinn and Davidson 2011), is evidence that a deeper conversation, coupled with increasingly robust

scientific investigations, is ensuing. We can observe an accelerating confluence of dharma with mainstream medicine, healthcare, cognitive science, affective neuroscience, neuroeconomics, business, leadership, primary and secondary education, higher education, the law, indeed, in society as a whole, in this now very rapidly changing world. Such developments have major implications, of course, for the kinds of training required to skillfully deliver mindfulness-based interventions in a range of different environments without omitting or denaturing their dharma essence. We shall return to this question in the final section of this paper.

By now, everybody is familiar with the graphs that show the exponential rise in the number of scientific papers each year on the subject of mindfulness (see Introduction, Figure 1). It is profoundly gratifying that a whole family of what are now called mindfulness-based interventions, such as MBCT, MBRP, MBCP, MB-EAT, MBEC[3] and many more have developed for specific purposes and are making profound and continually expanding contributions to the alleviation of suffering and to our deepening understanding of the nature of the human mind and heart.

For our work to be most skillful, it is important for us to inquire deeply into the inevitable limitations of our individual perspectives and to articulate the tension, mystery, and potential for continually deepening our understanding and furthering the evolution of our collective interests and activities on the basis of the kinds of perspectives expressed by the contributors to this special issue.

It is my hope that people attracted to this field will come to appreciate the profound transformative potential of the dharma in its most universal and skillful articulations through their own meditation training and practice. Mindfulness can only be understood from the inside out. It is not one more cognitive-behavioural technique to be deployed in a behaviour change paradigm, but a way of being and a way of seeing that has profound implications for understanding the nature of our own minds and bodies, and for living life as if it really mattered (Kabat-Zinn 2003). It is primarily what Francisco Varela termed a first-person experience. Without that living foundation, none of what really matters is available to us in ways that are maximally healing, transformative, compassionate, and wise. Of course, ultimately there is no inside and no outside, only one seamless whole, awake and aware.

> A human being is a part of the whole, called by us 'universe', a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest—a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole nature in its beauty. Nobody is able to achieve this completely, but the striving for such attainment is in itself a part of the liberation, and a foundation for inner security.
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> Albert Einstein
> New York Times, March 29, 1972

Motivation

As I reflect on it now, from the very beginning there was for me one primary and compelling reason for attempting to bring mindfulness into the mainstream of society. That was to relieve suffering and catalyse greater compassion and wisdom in our lives and culture. In my view, it is still the primary benefit that will accrue to us if the momentum continues, and the investigation and adaptation of mindfulness writ large (see below for what I mean by this) succeeds in maintaining its full depth, integrity, and potential. However, the mystery of how this came about, or how anything comes about, is in some sense opaque. Even having played a role in its unfolding, I find the indeterminacy and impersonal yet very personal nature of it mysterious. What is more, I am not sure it can be told entirely accurately as one fixed and definitive story or pathway—it strikes me as requiring a set of Feynman diagrams of various recollected trajectories. One would need to sum over all the stories, memories, records, and artefacts from that time to even approximate the actual truth of things. I love that.

It certainly wouldn't be summing over just my life, and just my memories either, but over the lives and memories and relationships and yearnings of my colleagues and friends who came to be involved in the early years of the Stress Reduction Clinic, as well as the stories and pathways of all the people far and wide who are now engaged in one way or another in working at the various interfaces that this special issue of the journal represents. As I see it, we are all participants in this mysterious unfolding process that may actually have no precise beginning, and no end either. The various involvements, participation, and caring on the part of the contributors to this issue and of our colleagues near and far, and on the part of the readers of this issue imply that we all carry some degree of responsibility for the integrity of the dharma as it is reflected in our lives and work. That, it seems to me, is the best way to keep it alive and to guard its integrity and vitality, by carrying it in our own individual hearts in our own individual ways, which we share as colleagues and as a distributive global sangha of overlapping, if not entirely commonly shared perspectives, concerns, and purpose. I sometimes describe this interconnectedness as Indra's Net at work (Kabat-Zinn 1999). It may be an apt metaphor for the interconnectedness of the universe, but its essence remains deliciously mysterious.

In what follows, I offer a few of the narrative threads that have been important to me in pondering the unfolding of MBSR and which reflect the distributive and multiplicative elements that give it value—for myself and for many others, priceless value. It will be a non-linear, impressionistic, somewhat reflective recounting of these various threads. Perhaps, taken together in the spirit in which they are offered, they may come into focus and illuminate some of the larger themes and challenges we are facing in the rapidly growing field of mindfulness-based interventions and their roles in medicine, psychology, science, and the wider society.

In addition to the primary motivation discussed above, there were a number of secondary motivations that drew me to pursue this path. These included its

potential for elucidating and deepening our understanding of the mind/body connection via new dimensions of scientific investigation, and also, the possibility of developing a form of right livelihood for myself at a particular juncture in my life, as well as, if successful, right livelihood for possibly large numbers of others who would be drawn to work of this kind because of its potential depth and authenticity. And there was also the fact of being in love with the beauty, simplicity, and universality of the dharma, and coming to see it as a worthy and meaningful pathway for a life well lived, a life of devotion to the potential for awakening and the alleviation of suffering, and thus, full circle to the original motivation.

Envisioning the possible

I started what was originally called the Stress Reduction and Relaxation Program in September 1979. It didn't come out of a vacuum . . . there were many years of pondering and meditating and inward and outward wandering before it arose as a possibility in my mind. Once established in the hospital, within a few years, it got renamed the Stress Reduction Clinic to normalize it by emphasizing that it was a clinical service, like any other, in the Department of Medicine. We were proud of the brand new hospital signs that pointed the way to our clinic, one small indicator of having blended into the mainstream of healthcare. Later, as more and more programmes started forming based on our work, we came to speak of our work in a more generic form as MBSR, or *mindfulness-based stress reduction*. From the start, it was motivated by a strong impulse on my part, as recounted below, to bring my dharma practice together with my work life into one unified whole, as an expression of right livelihood and in the service of something useful that felt very much needed in the world.

Even as a graduate student at MIT (1964–1971), I had been pondering for years 'what is my job with a capital J,' my 'karmic assignment' on the planet, so to speak, without coming up with much of anything. It was a personal koan for me and became more and more a continuous thread in my life day and night as those years unfolded. 'What am I supposed to be doing with my life?' I kept asking myself. 'What do I love so much I would pay to do it?' I knew it wasn't to continue in a career in molecular biology, much as I loved science and knew I would be disappointing my Nobel Laureate thesis advisor at MIT, Salvador Luria, and my father, himself an accomplished scientist. I was first exposed to the dharma at MIT, of all improbable places, in 1966, and started a daily meditation practice from that point on (Kabat-Zinn 2005a, 2005b). Meanwhile, I did what I could to find work, especially after I was married and, with my wife, Myla, had started a family. That included two years as a faculty member in the Biology Department at Brandeis University teaching molecular genetics and a science for non-science majors course (which was an opportunity for teaching meditation and yoga as pathways into a first-person experience of biology), and then a stint as Director of the Cambridge Zen Center under the Korean Zen Master, Seung Sahn, where I was

also his student and a Dharma teacher in training. I was also teaching large mindful yoga classes weekly in a church in Harvard Square, and exploring other things, such as offering occasional meditation training and yoga/stretching workshops for athletes, especially runners.

In 1976, I went to work at the almost brand-new University of Massachusetts Medical School.[4] All the while, my koan about what I was really supposed to be doing with my life in terms of right livelihood was unfolding in the background.

On a two-week *vipassanā* retreat at the Insight Meditation Society (IMS) in Barre, Massachusetts, in the Spring of 1979, while sitting in my room one afternoon about Day 10 of the retreat, I had a 'vision' that lasted maybe 10 seconds. I don't really know what to call it, so I call it a vision. It was rich in detail and more like an instantaneous seeing of vivid, almost inevitable connections and their implications. It did not come as a reverie or a thought stream, but rather something quite different, which to this day I cannot fully explain and don't feel the need to.

I saw in a flash not only a model that could be put in place, but also the long-term implications of what might happen if the basic idea was sound and could be implemented in one test environment—namely that it would spark new fields of scientific and clinical investigation, and would spread to hospitals and medical centres and clinics across the country and around the world, and provide right livelihood for thousands of practitioners. Because it was so weird, I hardly ever mentioned this experience to others. But after that retreat, I did have a better sense of what my karmic assignment might be. It was so compelling that I decided to take it on wholeheartedly as best I could.

Pretty much everything I saw in that 10 seconds has come to pass, in large measure because of the work and the love of all the people who found their way to the Stress Reduction Clinic once it was born, wanting to contribute their own unique karmic trajectories and loves to the nascent and then continually unfolding enterprise of MBSR, the wellbeing and longevity of which were always in some sense tentative and uncertain, because of the vagaries of medical school and hospital politics (one foot on a roller skate, the other on a banana peel, I used to say).

It struck me in that fleeting moment that afternoon at the Insight Meditation Society that it would be a worthy work to simply share the essence of meditation and yoga practices as I had been learning and practicing them at that point for 13 years, with those who would never come to a place like IMS or a Zen Center, and who would never be able to hear it through the words and forms that were being used at meditation centres, or even, back in those days, at yoga centres, which were few and far-between, and very foreign as well.

A flood of thoughts following the extended moment filled in the picture. Why not try to make meditation so commonsensical that anyone would be drawn to it? Why not develop an American[5] vocabulary that spoke to the heart of the matter, and didn't focus on the cultural aspects of the traditions out of which the dharma emerged, however beautiful they might be, or on centuries-old scholarly

debates concerning fine distinctions in the Abhidharma. This was not because they weren't ultimately important, but because they would likely cause unnecessary impediments for people who were basically dealing with suffering and seeking some kind of release from it. And, why not do it in the hospital of the medical centre where I happened to be working at the time? After all, hospitals do function as 'dukkha magnets' in our society,[6] pulling for stress, pain of all kinds, disease and illness, especially when they have reached levels where it is impossible to ignore them (Kabat-Zinn 2005c). What better place than a hospital to make the dharma available to people in ways that they might possibly understand it and be inspired by a heartfelt and practical invitation to explore whether it might not be possible to do something *for themselves* as a complement to their more traditional medical treatments, since the entire raison d'être of the dharma is to elucidate the nature of suffering and its root causes, as well as provide a practical path to liberation from suffering? All this to be undertaken, of course, without ever mentioning the word 'dharma.'

The early years

With the aim of bridging these two epistemologies of science and dharma, I felt impelled to point out in the early years of MBSR the obvious etymological linkage of the words *medicine* and *meditation* and articulate for medical audiences their root meanings (Bohm 1980; Kabat-Zinn 1990). In that context, it felt useful to adopt the already established terminology of self-regulation (Shapiro 1980) and describe meditation operationally, in terms of the self-regulation of attention (Goleman and Schwartz 1976). From there, it was commonsensical, if not axiomatic, to point out that much of the time we are barely present in our own bodies and lives as they are unfolding, and so have not cultivated interior resources available to us that might be of profound benefit . . . such as the wise, discerning, embodied, and selfless aspects of awareness itself. The intention and approach behind MBSR were never meant to exploit, fragment, or decontextualize the dharma, but rather to *recontextualize* it within the frameworks of science, medicine (including psychiatry and psychology), and healthcare so that it would be maximally useful to people who could not hear it or enter into it through the more traditional dharma gates, whether they were doctors or medical patients, hospital administrators, or insurance companies.

And because naming is very important in how things are understood and either accepted or not, I felt that the entire undertaking needed to be held by an umbrella term broad enough to contain the multiplicity of key elements that seemed essential to field a successful clinical programme in the cultural climate of 1979. *Stress reduction* seemed ideal, since pretty much everybody can relate to that instinctively, even though 'reduction' is a something of a misnomer. The term *stress* also has the element of dukkha embedded within it. In fact, some Buddhist scholars translate the term 'dukkha' in Buddhist texts as 'stress' (see, for example, Thanissaro Bhikkhu 2010). Moreover, there was already a growing literature

related to the psychophysiology of stress reactivity and pain regulation (Goleman and Schwartz 1976; Melzack and Perry 1975; Schwartz, Davidson and Goleman 1978). But as more than one participant in MBSR has exclaimed on occasion after a few weeks in the programme: 'This isn't stress reduction. This is my whole life!' New evidence in fact demonstrates that chronic stress exerts potentially deleterious health effects on the brain, on one's behaviour, and on cognitive abilities across the entire lifespan, with particular windows of heightened vulnerability (Lupien et al. 2009). Chronic stress has also been shown by Nobel Laureate Elizabeth Blackburn to increase the rate of degradation of the telomers at the ends of all of our chromosomes, and thus accelerate biological aging at the cellular and sub-cellular level, leading to a significant shortening of the lifespan (Epel et al. 2004).

As things developed, it increasingly felt that something more was needed to differentiate our approach from many programmes that also used the term stress reduction or stress management but that had no dharma foundation whatsoever. So at a certain point in the early 1990s, it seemed sensible to formally begin calling what we were doing mindfulness-based stress reduction (MBSR) although, in point of fact, we had been referring to what we did as training in 'mindfulness meditation' from the very beginning in the scientific papers coming out of the Stress Reduction Clinic (Kabat-Zinn 1982; Kabat-Zinn and Chapman-Waldrop 1988; Kabat-Zinn, Lipworth, and Burney 1985; Kabat-Zinn et al. 1986). The term mindfulness meditation had already been used several times in the psychological literature (Brown and Engler 1980; Deatherage 1975).

The early papers on MBSR cited not just its Theravada roots (Kornfield 1977; Nyanaponika 1962), but also its Mahayana roots within both the Soto (Suzuki 1970) and Rinzai (Kapleau 1965) Zen traditions (and by lineage, the earlier Chinese and Korean streams), as well as certain currents from the yogic traditions (Thakar 1977) including Vedanta (Nisargadatta 1973), and the teachings of J Krishnamurti (Krishnamurti 1969, 1979) and Ramana Maharshi (Maharshi 1959). My own primary Zen teacher, Seung Sahn, was Korean, and taught both Soto and Rinzai approaches, including the broad use and value of koans and koan-based 'Dharma combat' exchanges between teacher and student (Seung Sahn 1976). This form contributed in part to the element of interactive moment-by-moment exchanges in the classroom between teacher and participant in which they explore together in great and sometimes challenging detail direct first-person experience of the practice and its manifestations in everyday life. This salient feature of MBSR and other mindfulness-based interventions has come to be called 'inquiry' or dialogue[7] (Kabat-Zinn 2005d; Ocok 2007; Williams et al. 2007).

Some works not cited in the early papers but that made a significant impression on my appreciation of the dharma at that time and how it could be articulated in a simple and colloquial vocabulary included *Meditation in Action* (Trungpa 1969), *The Miracle of Mindfulness* (Hanh 1976), and *The Experience of Insight* (Goldstein 1976). Early studies that helped contextualize the work of MBSR within the nascent framework of scientific research into meditation and its

potential clinical applications included the early papers of Dan Goleman and Richard Davidson (Davidson and Schwartz 1976; Goleman and Schwartz 1976); the work of Benson (Benson 1976), and the work of Roger Walsh, including his seminal 1980 paper (Walsh 1977, 1978, 1980).

Naming what we were doing in the clinic *mindfulness-based* stress reduction raises a number of questions. One is the wisdom of using the word *mindfulness* intentionally as an umbrella term to describe our work and to link it explicitly with what I have always considered to be a universal dharma that is co-extensive, if not identical, with the teachings of the Buddha, the Buddhadharma. By 'umbrella term' I mean that it is used in certain contexts as a place-holder for the entire dharma, that it is meant to carry multiple meanings and traditions simultaneously, not in the service of finessing and confounding real differences, but as a potentially skillful means for bringing the streams of alive, embodied dharma understanding and of clinical medicine together. The intention was for it to be commonsensically relevant and accessible enough to benefit potentially anybody who might be overwhelmed by suffering and sufficiently motivated to undertake a certain degree of hard work in the form of a daily mindfulness practice in the '*laboratories*' of the MBSR programme and of life itself. The challenge for the participants was to just do the work from week to week, in other words, to practice the curriculum as it was being unfolded, and see what would happen. The emphasis was always on awareness of the present moment and acceptance of things as they are, however they are in actuality, rather than a preoccupation with attaining a particular desired outcome at some future time, no matter how desirable it might be (see Cullen 2006, 2008). One major principle that we committed to was, and still is, never asking more of our patients in terms of daily practice than we as instructors were prepared to commit to in our own lives on a daily basis.

It always felt that the details concerning the use of the word *mindfulness* in the various contexts in which we were deploying it could be worked out later by scholars and researchers who were knowledgeable in this area, and interested in making such distinctions and resolving important issues that may have been confounded and compounded by the early but intentional ignoring or glossing over of potentially important historical, philosophical, and cultural nuances—issues that may yet be shown to be critical to a deeper understanding of the mind and its relationship to the brain and body, as is implied in many of the papers in this volume, as well as a deeper understanding of the dharma itself, as the subject is excavated so elegantly and eloquently in the scholarly papers in this issue from various classical Buddhist perspectives. This special issue is perhaps only a first step to just the kind of dialogue necessary to remind us all of the need for both fidelity and imagination in furthering the work of the dharma in the world in an ever-widening circle of settings and circumstances, including business, leadership, education, etc.

In the early years, I did find great support for the direction I was taking in the writings of Nyanaponika Thera (1962) and in particular, what I thought of at the

time, and still do, as an extremely elegant encapsulation of the centrality of mindfulness. In his words, Mindfulness, then, is

> the unfailing master key for *knowing* the mind, and is thus the starting point;
> the perfect tool for *shaping* the mind, and is thus the focal point;
> the lofty manifestation of the achieved *freedom* of the mind, and is thus the culminating point.

Seen in this way, mindfulness is the view, the path, and the fruit all in one.

I also felt that it was more important to describe mindfulness in considerable detail in the early scientific papers on MBSR and cite its various origins in various contemplative traditions, rather than to offer a definitive and concise definition. And when I did offer definitions of mindfulness, as I did repeatedly in professional talks, and later, in books, they were *operational* definitions, not meant to be definitive statements in absolute accord with the Abhidharma or any other classical teaching that tended to limit it to the mind state that knows and remembers whether or not the attention is on the selected object of attention, or any other aspects of remembering, as described in this volume by a number of contributors (Dreyfus, Gethin, Olendzki). My training in Zen consistently emphasized non-dual awareness transcending subject and object, akin to what John Dunne refers to in this issue as an innatist perspective, and what I believe Nyanaponika meant by the 'lofty manifestation of the achieved freedom of the mind.' What seemed called for, practically speaking, was an instrumental and operational emphasis on what is actually *involved* in the gesture of awareness, to use Francisco Varela's elegant phrase (Depraz, Varela and Vermesch 1999; Varela, Thompson and Rosch 1991). Thus, several variants of oft-quoted working definitions were expressed at different times: (a) paying attention in a particular way: on purpose, in the present moment, and non-judgmentally (Kabat-Zinn 1994); (b) the awareness that arises from paying attention, on purpose, in the present moment, and non-judgmentally (Kabat-Zinn 2005e). No single definition of mindfulness was given in *Full Catastrophe Living*. Instead, I chose to describe it operationally from many different angles depending on context. In some sense, the entire book is a definition of mindfulness.

On the issue of 'memory' as an intrinsic element of *sati*, I have always felt that one natural function of present moment awareness is to remember the immediate past. Thus, the element of *retention* that Georges Dreyfus emphasizes in his paper did not seem either necessary or useful to feature in a working definition of mindfulness in the West, given how cognitive we tend to be already, and how little we experience the domain of being (in the present moment) without any agenda other than to be awake and without the lenses of our likes and dislikes and opinions, which are usually colouring and filtering direct experience. Thus, the strong emphasis on *non-judgmental awareness* in the operational definitions. Non-judgmental does not mean to imply to the novice practitioner that there is some ideal state in which judgments no longer arise.

Rather, it points out that there will be many many judgments and opinions arising from moment to moment, but that we do not have to judge or evaluate or react to any of what arises, other than perhaps recognizing it in the moment of arising as pleasant, unpleasant, or neutral (the second foundation or establishment of mindfulness). This can lead naturally to the directly experienced discovery that the liberative choice in any moment either to cling and self-identify or not is always available, always an option, and perhaps to a further discovery that non-clinging sometimes happens spontaneously through the intrinsic liberative quality of pure awareness, with no effort whatsoever.

For this reason, and a personal affinity with the various streams of Chan and Zen, there was from the very beginning of MBSR an emphasis on non-duality and the non-instrumental dimension of practice, and thus, on non-doing, non-striving, not-knowing, non-attachment to outcomes, even to positive health outcomes, and on investigating beneath name and form and the world of appearances, as per the teachings of the *Heart Sutra*, which highlight the intrinsically empty nature of even the Four Noble Truths and the Eightfold Path, and liberation itself and yet are neither nihilistic nor positivistic, but a middle way (see Kabat-Zinn 2003, 2005f; Wallace and Hodel 2008). The emphasis in Chan on direct transmission outside the sutras or orthodox teachings (Luk 1974) also reinforced the sense that what is involved in mindfulness practice is ultimately not merely a matter of the intellect or cognition or scholarship, but of direct authentic full-spectrum first-person experience, nurtured, catalysed, reinforced and guided by the second-person perspective of a well-trained and highly experienced and empathic teacher. Therefore, MBSR was grounded in a non-authoritarian, non-hierarchical perspective that allowed for clarity, understanding, and wisdom, what we might call essential dharma, to emerge in the interchanges between instructor and participants, and within the meditation practice of the participant as guided by the instructor. And indeed, quite intentionally, we give a great deal of guidance in the meditation practices of MBSR in the early weeks of the programme, in class and on the guided meditation CDs.

A concrete example of the middle way orientation in MBSR can be felt in the way the instructor relates to the participants and to the entire enterprise. Although our patients all come with various problems, diagnoses, and ailments, we make every effort to apprehend their intrinsic wholeness. We often say that from our perspective, as long as you are breathing, there is more 'right' with you than 'wrong' with you, no matter what is wrong. In this process, we make every effort to treat each participant as a whole human being rather than as a patient, or a diagnosis, or someone having a problem that needs fixing. MBSR is grounded altogether in a non-fixing orientation and approach. It is less about *curing* and more about *healing*, which I define as *a coming to terms with things as they are* in full awareness. We often see that healing takes place on its own over time as we align ourselves with what is deepest and best in ourselves and rest in awareness moment by moment without an attachment to outcome. Or, alternatively and in all probability, seeing and not judging, to whatever degree possible, how strongly

we *are* attached to a particular outcome, and then bringing that quality of awareness into all aspects of our lives, work, and relationships as best we can.

The fact that attending in this way with consistency and stability is actually the hardest work in the world for human beings doesn't make it any less attractive or important. We might say that if mindfulness does not in some sense become our *default mode*, then its opposite, mindlessness or unawareness, will certainly retain that role. The inevitable result is to be caught up in a great many of our moments in a reactive, robotic, automatic pilot mode that has the potential to easily consume and colour our entire life and virtually all our relationships. One of the major discoveries of MBSR is that our patients realize this in dramatic ways and become motivated to live a life of greater awareness that extends far beyond the eight weeks they are in the programme. That greater awareness includes, of course, our intrinsic interconnectedness as beings, and so the possibility of greater spontaneous compassion toward others and toward oneself. For many, it also includes formal meditation becoming an ongoing feature of one's daily life, often for years and decades after the initial experience of MBSR.

MBSR and other mindfulness-based interventions modeled on it are intrinsically a participatory engagement . . . we invite the patient to *participate* in his or her own movement toward greater levels of health and wellbeing, starting from the actuality of the present circumstance, whatever it might be. It is invitational, and depends on the patient's willingness to tap into those profound innate resources we all have by virtue of being human, the capacities for learning, growing, healing, and transformation inherent in the systematic cultivation of awareness itself and its sequelae. We think of this as *participatory medicine* at its best: the healthcare team brings its resources to the table, and the patient/participant brings his or hers as well (Kabat-Zinn 2000). We pour energy, in the form of attention, into what is 'right with us' in the present moment (which requires *recognition* that there may indeed be something 'right' with us) and let the rest of the hospital and the healthcare team take care of what is 'wrong.' It is a worthy division of labour, and a good place to start the process of reclaiming the full dimensionality of one's being and embodying it in everyday life, whatever else one might have to come to terms with, all of which is an intimate part of 'the curriculum' of the practice in any event.

In the Spring of 1979, after the vision I experienced on the retreat at IMS, I met individually with three physicians in the hospital, the directors of the primary care, pain, and orthopedic clinics, to try to find out how they viewed their work, what their clinics' successes were with their patients, and what might be missing in the hospital experience, both for their patients and for themselves. When I asked what percentage of their patients they felt they were able to help, the response was typically 10–20%. I was astonished, and asked what happened to the others. I was told that they either got better on their own, or never got better. So I asked whether they would be open to referring their patients, when appropriate, to a programme that would teach them to take better care of themselves as a complement to whatever the healthcare system was or was not

able to do for them. It would be based on relatively intensive training in Buddhist meditation without the Buddhism (as I liked to put it), and yoga. Their responses were very positive. On the basis of those meetings, I proposed that a programme be set up under the auspices of ambulatory care in the hospital, which would take the form of an eight-week course to which physicians would refer patients they were seeing who they felt were not responding to their treatments, and were in some sense, falling through the cracks of the healthcare system (really in large measure a disease-care system) and not getting any or full satisfaction from their healthcare. And so, MBSR came into being in the Fall of 1979, and those first three very forward thinking clinic directors, Tom Winters, Bob Burney and John J. Monahan exclusively referred the first few cycles of patients until word spread further into the medical community within the hospital and then out into the larger medical community as well. Within the year, the Chief of Medicine, James E. Dalen, suggested it become part of the Department of Medicine. We were invited wholeheartedly into the mainstream. This was before the new signs went up in the hospital, of course.[8]

Ethics

The question is sometimes raised about the ethical foundation of MBSR. Are we ignoring that fundamental aspect of the Dharma in favour of just a few highly selected meditation techniques, again, decontextualizing elements of a coherent whole? My view is that we are not. First, it is inevitably the personal responsibility of each person engaging in this work to attend with care and intentionality to how we are actually living our lives, both personally and professionally, in terms of ethical behaviour. An awareness of one's conduct and the quality of one's relationships, inwardly and outwardly, in terms of their potential to cause harm, are intrinsic elements of the cultivation of mindfulness as I am describing it here.

At the same time, it seems to me that an ethical foundation is naturally built into the structure and setting of MBSR in a number of different ways. For instance, within the context of medicine and healthcare, we already have in place a profound framework and professional code of conduct in the Hippocratic tradition, founded on the principle of *primum non nocere*, to first do no harm, and to put the needs of the patient above one's own. Such principles are axiomatic and foundational within the context of MBSR, whether it is offered in a hospital setting, or elsewhere. Of course, a degree of mindfulness is required even to sense that one might actually be doing harm, either by commission or, more subtly, by omission.

We also encourage a work environment in the clinic and the Center for Mindfulness in which we depend not only on our own awareness but also on each other's awareness, candour, and willingness to communicate about challenging circumstances to keep us individually and collectively honest. It is built into the fabric of how we see our work and commitment to our patients, our colleagues,

and ourselves. Moreover, as noted earlier (see note 6), the Hippocratic Oath in some sense is mirrored in the Bodhisattva Vow to attend completely to the suffering and liberation of an infinite number of beings before attending to one's own. From the non-dual perspective, the infinite number of beings and oneself are not separate, and never were. This perspective can and needs to be taken seriously, and gently supported by explicit intentions regarding how we conduct ourselves both inwardly and outwardly.

In this way, and also for cultural reasons having to do with how common it is in our society to profess a moral stance outwardly that one does not adhere to inwardly, it feels appropriate in our environment that the ethical foundation of the practice be more implicit than explicit, and that it may be best expressed, supported, and furthered by how we, the MBSR instructor and the entire staff of the clinic, embody it in our own lives and in how we relate to the patients, the doctors, the hospital staff, everybody, and of course, how we relate to our own interior experience. Ultimately, the responsibility to live an ethical life lies on the shoulders and in the hearts of each one of us who chooses to engage in the work of mindfulness-based interventions. It too is a distributive Dharma responsibility. And the first line of defence in terms of potential transgression or betrayal is always awareness of one's own motivations and emotions, and the universal tendencies of grasping, aversion, delusion, and 'selfing' which can so easily colour our moments and blind us to root causes of suffering that we might be participating in unwittingly.

It has always felt to me that MBSR is at its healthiest and best when the responsibility to ensure its integrity, quality, and standards of practice is being carried by each MBSR instructor him or herself. That is not to turn it into an ideal or a burden, but rather to keep it very real and close to our everyday experience held in awareness with kindness and discernment. In my experience, which is certainly limited and circumscribed, the shouldering and embodiment of this responsibility has been the case with MBSR teachers around the world to an extraordinary degree. To my mind, when each of us who cares about this work, who loves this work, takes care of the dharma through our practice and our love, then the dharma that is at the heart of the work flourishes and takes care of itself. Tended by each member of the Sangha of instructors, practitioners, researchers, everybody . . . it defines a distributive responsibility that turns out to be a great joy and a continued invitation to have there be no separation between one's practice and one's life. Some mindfulness teachers who are also physicians have characterized this stance as the foundation of *professionalism* in medicine, and boldly point out its potential for developing a more compassionate and less stressed and error-prone healthcare system (Epstein 1999; Krasner et al. 2009; Sibinga and Wu 2010).

Lineages and training for teachers of mindfulness-based interventions

The early years of MBSR and the development of other mindfulness-based clinical interventions were the province of a small group of people who gave

themselves over to practicing and teaching mindfulness basically out of love, out of passion for the practice, knowingly and happily putting their careers and economic wellbeing at risk because of that love, usually stemming from deep first-person encounters with the dharma and its meditative practices, usually through studying with Buddhist teachers from well-defined traditions and lineages, and/or Asian teachers in other traditions that value the wisdom of mindfulness, such as Sufism, the yogas, Vedanta, and Taoism. Fortunately, there are even more options in this era, for those who wish to pursue them, to study and practice with such respected teachers in the root traditions of Asia, as well as with seasoned Western Buddhist Dharma teachers, and, of course, to sit long retreats at wonderful Dharma centres both in Asia and in the West.[9] I personally consider the periodic sitting of relatively long (at least 7–10 days and occasionally much longer) teacher-led retreats to be an absolute necessity in the developing of one's own meditation practice, understanding, and effectiveness as a teacher. In terms of the 'curriculum' of mindfulness training, to become an MBSR teacher, it is a laboratory requirement. But while participating in periodic long retreats may be necessary and extremely important for one's own development and understanding, by itself it is not sufficient. Mindfulness in everyday life is the ultimate challenge and practice. Of course, the two are complementary and mutually reinforcing and deepening. And once again, we can remind ourselves that ultimately there is no separation between them, because life itself is one seamless whole.

The practice of mindfulness is a lifetime's engagement. Growth, development, and maturation as a mindfulness practitioner and teacher of mindfulness are a critical part of the process. It is not always painless. As we know from direct experience, self-awareness can be exceedingly humbling. Thus, the motivation to persevere and face what needs facing and work with it wisely and compassionately must mature as well in the process. This brings us to some critical concerns regarding the teaching of mindfulness in non-Buddhist settings and the mental models or maps that instructors of mindfulness-based interventions might use to navigate by in those settings.

The trouble with maps–a note to mindfulness-based instructors

First, I want to say that there is nothing wrong with maps. I love maps, and can pore over them for hours. They are incredibly useful, absolutely essential at times, and wonderfully pleasurable for some people to contemplate endlessly. I am one of those people. Such contemplation can lead to great insight. But, as the saying goes, they are not the territory. This is hugely relevant for teaching MBSR and other mindfulness-based interventions.

Since all mindfulness-based interventions are based on relatively intensive training in awareness in the context of a universal dharma framework (and as I have been asserting here, not different in any essential way from Buddhadharma), the various maps of the territory of the dharma can be hugely helpful to the MBSR

instructor in certain ways. Paradoxically, they can also be hugely interfering and problematic.

The biggest problem is that not only is the map not the territory, but that it can seriously occlude our ability as a mindfulness-based instructor to see and communicate about the territory in any original and direct way—a direct transmission if you will, outside the formal teachings, and thus, an embodiment of the real curriculum. Our internal map, if we are unaware of it, or strongly attached to it, can unwittingly impose just such a coordinate system for the patient/participant that can lead to idealizing a goal to be realized or attained, rather than letting realization and attainment take care of themselves. Our job is to take care of the territory of direct experience in the present moment and the learning that comes out of it. This suggests that the instructor is continually engaged in mapping the territory inwardly through intimate first-person contact and discernment, moment by moment, all the while keeping the formal dharma maps of the territory in mind to whatever degree we may feel is valuable, but not relying on them explicitly for the framework, vocabulary, or vehicle for working with what is most salient and important in the classroom in any moment. Some of this will naturally be thought-based, but a good deal of it will be more intuition-based, more embodied, more coming out of the spaciousness of *not-knowing* rather than out of a solely conceptual knowing. This can be quite challenging unless the formal dharma maps are deeply engrained in one's being through practice, not merely cerebral and cognitive.

For example, in the context of the emotional safety we attempt to establish within the MBSR classroom, to suggest that a person look directly into the experience of pain and bring awareness to the sensations in the body, whatever they are, and simply rest in that awareness without having to do anything brings the person right into the practice with beginner's mind. No map necessary. Just the invitation to look and perhaps see, listen and perhaps hear, sense and perhaps feel, thus cultivating an exquisite intimacy or familiarization with actual experience as it is unfolding. Of course, it is a radical act, and huge amounts of support and guidance are necessary to keep the person engaged in such a practice, even for the briefest of moments at first, and this is why mindfulness-based interventions such as MBSR are delivered in a group setting as 'courses' over an extended period of time, for the purpose of letting just such a learning curve and a deepening of stability and insight develop in a context of total support which is none other than sangha (Santorelli 1999). In the case of pain, the instructor might, as we often do in the MBSR classroom to reinforce the participants' motivation and understanding of the transformative potential of the mind/body connection, cite recent supportive evidence, in this case from studies such as those demonstrating that: (1) Zen meditators show structural brain changes (in terms of cortical thickness) related to decreased sensitivity to thermal pain in pain-related brain regions using fMRI (Grant et al. 2010); and (2) that long-term meditators using an open focus of attention, in other words, putting out the welcome mat for whatever arises in the field of awareness, what we call choiceless awareness in MBSR, showed reductions

in self-reported unpleasantness but not of intensity in response to a thermal pain stimulation (Perlman et al. 2010). Under other circumstances, as part of the didactic element of MBSR that addresses specific background issues and research findings relevant to the participants in the program (Kabat-Zinn, 1982; Kabat-Zinn, 1990), we might cite other studies of brain changes seen with MBSR training (Hölzel et al. 2010; Hölzel et al. 2011), or of improved quality of life, depression, and fatigue in people with multiple sclerosis (MS) after MBSR training (Grossman et al. 2010).

It doesn't take long for novices to the practice of mindfulness to notice that the thinking mind has a life of its own, and can carry the attention away from both the bare attending to sensation in the body and from any ability to rest in awareness with whatever is arising. But over time, with ongoing practice, dialogue, and instruction, it is not unusual for even novice practitioners to see, either spontaneously for themselves or when it is pointed out, that the mind indeed does have a life of its own, and that when we cultivate and stabilize attention in the body, even a little bit, it often results in apprehending the constantly changing nature of sensations, even highly unpleasant ones, and thus, their impermanence. It also gives rise to the direct experience that 'the pain is not me,' and thus the option of non-identification not only with the sensations, but also with any attendant inflammatory emotions and thoughts that might be arising within the attending and the judging of the experience. Thus we become intimate with the nature of thoughts and emotions, and mental states such as aversion, frustration, restlessness, greed, doubt, sloth and torpor, and boredom, to name a few, which constitutes the territory of the third foundation of mindfulness, without ever having to mention the classical map of the four foundations of mindfulness, nor the five hindrances, nor the seven factors of enlightenment.

For that matter, when we work with people in a medical or psychological setting, using 'stress' and the suggestion that 'stress reduction' might be possible as the core invitational framework, we can dive right into the experience of *dukkha* in all its manifestations without ever mentioning *dukkha*; dive right into the ultimate sources of *dukkha* without ever mentioning the classical etiology, and yet able to investigate craving and clinging first-hand, propose investigating the possibility for alleviating if not extinguishing that distress or suffering (cessation), and explore, empirically, a possible pathway for doing so (the practice of mindfulness meditation writ large, inclusive of the ethical stance of *śīla*, the foundation of *samadhi*, and, of course, *prajñā*, wisdom—the eightfold noble path) without ever having to mention the Four Noble Truths, the Eightfold Noble Path, or *śīla, samadhi, or prajñā*.

In this fashion, the Dharma can be self-revealing through skillful and ardent cultivation via formal and informal practice in the supportive context of dialogue, inquiry, and skillful instruction, which are themselves all one seamless whole. We can speak of and reinforce attending to the experience of change and impermanence since they are self-evident, and develop a collective appreciation of them through engaging in the dialogues and conversations among the class

participants. The law of impermanence reveals itself without any need to reference a Buddhist framework or lens for seeing it. The same is true for all four noble truths—perhaps better spoken of as the four realities (Gethin 1998). The same is true for *anattā* although this one is trickier and scarier, and needs to be held very gently and skillfully, letting it emerge out of the participants' own reports of their experience rather than stated as a fact. Often it begins with the realization, not insignificant, that 'I am not my pain,' 'I am not my anxiety,' 'I am not my cancer,' etc. We can easily ask the question, well then, who am I? This is the core practice of Chinese Chan (Sheng-Yen 2001), Korean Zen (Buswell 1991; Seung Sahn 1976), Japanese Zen (Kapleau 1965), and also of Ramana Maharshi (1959). Nothing more is needed . . . . Just the question and the questioning . . . the inquiry and investigation into the nature of self, not merely through thought, but through awareness itself.[10]

In the same way, we can be loving and compassionate as teachers/ instructors/ and guides, and introduce practices to cultivate lovingkindness, especially toward oneself in times of contraction and mental seizures, as well as compassion, joy, and equanimity, without any mention of the Four Immeasurables, or necessary recourse to the classical ways in which these are cultivated. The same is true for generosity, gratitude, and other positive mental states.

This all is to say that it can be hugely helpful to have a strong personal grounding in the Buddhadharma and its teachings, as suggested in the earlier sections. In fact, it is virtually essential and indispensible for teachers of MBSR and other mindfulness-based interventions. Yet little or none of it can be brought into the classroom *except in essence*. And if the essence is absent, then whatever one is doing or thinks one is doing, it is certainly not mindfulness-based in the way we understand the term.

This means that we cannot follow a strict Theravadan approach, nor a strict Mahayana approach, nor a strict Vajrayana approach, although elements of all these great traditions and the sub-lineages within them are relevant and might inform how we, as a unique person with a unique dharma history, approach specific teaching moments in both practice, guided meditations, and dialogue about the experiences that arise in formal and informal practice among the people in our class. But we are never appealing to authority or tradition, only to the richness of the present moment held gently in awareness, and the profound and authentic authority of each person's own experience, equally held with kindness in awareness.

This orientation within mindfulness-based interventions has elements of the Chan approach of non-doing and non-striving, the so called 'method of no method,' and of the paradoxical 'Dharma combat' dialogue and inquiry mentioned earlier, so characteristic of the lineages of Seng-Ts'an and Hui Neng, the third and sixth Zen Patriarchs of the Chan tradition in Six and Seventh Century China (Kabat-Zinn 2010; Luk 1974; Mu Soeng 2004; Sheng-Yen 2001; Suzuki 1956). All maps are laid aside as an act of love and wisdom, meaning that we no longer have any attachment to what they portray, and are thus able to exemplify and embody the essence of the territory of being human in all its dimensionalities,

while transmitting to others through our direct seeing and honouring of their intrinsic Buddha nature that there is indeed, nowhere to go, nothing to do, and nothing to attain . . . the gateway to any authentic attainment. This is all intrinsic to any mindfulness-based intervention, what we might call its *marrow*.

How then might we understand the whole question of lineage, especially the *lineage* of your patients and clients, because their lineage is very likely to start with you, their teacher. What do you understand as your own lineage? What nurtured your dharma practice and understanding early on? What nurtures them now? Perhaps the dharma in its largest and most universal sense and language, whatever the particulars of your dharma history, is your lineage. Skillful means might require that you take responsibility for the whole of it, wordlessly, with perhaps an interior smile, not of self-satisfaction or secrecy, or attainment of anything at all, but of delight that the real lineage is formless, and with eyes of wholeness and a heart of kindness, know that literally everything and everybody is already the Buddha, already the patriarchs, already the dharma, already your teacher. You have nothing to do except give it away, and the only way you can do that is to give yourself away. No charge for this, it and you being already free.

> . . . . by watching yourself in your daily life with alert interest with the intention to understand rather than to judge, in full acceptance of whatever may emerge, because it is here, you encourage the deep to come to the surface and enrich your life and consciousness with its captive energies. This is the great work of awareness; it removes obstacles and releases energies by understanding the nature of life and mind. Intelligence is the door to freedom and alert attention is the mother of intelligence.
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> Nisargadatta Maharaj (1973)
> Quote on the last page of the MBSR workbook

NOTES

1. In the present context, to recognize the universal character and applicability of the dharma, I am using the term with a lower-case "d" except in those very specific circumstances where it signifies the traditional Buddhist teachings within an explicitly Buddhist context.
2. From the start, there were times that I thought of what we were doing in the stress reduction clinic as a kind of guerilla theatre within medicine and healthcare and the hospital, and in a larger sense, engaging with those universes in an ongoing dance resembling the martial art of aikido, with its characteristic give and take, entering and blending, and its unswerving aims of vigilance, groundedness, fluidity, and appropriate application of focused energy, all in the service of wisdom in difficult circumstances—the wisdom of non-harming and peaceful resolution of conflicting interests.

3. Mindfulness-Based Cognitive Therapy (Segal, Teasdale and Williams 2002), Mindfulness-Based Relapse Prevention (Bowan, Chawla and Marlatt 2011); Mindfulness-Based Childbirth and Parenting (Bardacke, forthcoming); Mindfulness-Based Eating Awareness Training (Kristeller, Baer and Quillian-Wolever 2006); Mindfulness-Based Elder Care (McBee 2008).
4. I went to work as a research associate and later, post-doctoral fellow in the Anatomy and Cell Biology Department, in the lab of a fellow named Rob Singer, who is now at the Albert Einstein College of Medicine. I took that job because I needed work, we had an indirect MIT connection, and, to sweeten the deal, he promised me that I could also participate in teaching gross anatomy to the first year medical students, which meant being one step ahead of the students in doing the actual cadaver dissections. As a yoga teacher and also someone who was interested in what is called *maranasati* or mindfulness of death, that was a 'to die for' experience. And so I went to work in Rob's lab. The back story is that I met with Rob originally at the suggestion of someone I did not know, but who introduced himself as a friend of one of my brothers, and then proceeded to tell me what I should be doing with my life, as if he knew and I didn't, which turned out to be more correct than I would ever have imagined. His name was Earl Etienne. He was a young full professor of physiology at UMass Medical School, wise, worldly, a truly amazing being. Many years later, he showed up at a medical grand rounds I gave on MBSR at the California Pacific Medical Center. I spotted him in the audience and spontaneously dedicated the talk to him and publically expressed my gratitude for his essential catalytic role in my being at UMass in the first place. If I had not already been there, it is doubtful that MBSR, at least as it is presently configured, would have come into the world. To me, this is one of an infinite number of examples of the interconnectivity of emergences, and how empty it is to reify an independent entity that would feel the need to claim individual credit for any complex emergence. It may be correct as far as it goes, but it is never the whole story. Perhaps any whole story is so complex it can never be completely known. Tragically, Earl Etienne died young, several years later.
5. I thought of it in those terms at the time. Now I am not quite sure what adjective to use. Secular might do, except that it feels dualistic, in the sense of separating itself from the sacred; I see the work of MBSR as sacred as well as secular, in the sense of both the Hippocratic Oath and the Bodhisattva Vow being sacred, and the doctor/patient relationship and the teacher/student relationship as well. Perhaps we need new ways of 'languaging' our vision, our aspirations, and our common work. Certainly it is only a matter of 'American' in the US. Each country and culture will have its own challenges in shaping the language to its own heart-essence without denaturing the wholeness of the dharma.
6. Hospitals are not the only dukkha magnets in society—schools, prisons, and the military could also be described this way. Now there are growing movements to bring mindfulness into K-12 education (Burnett and Cullen 2010; Grossman et al. 2010; Kaiser-Greenland 2010), into the military (Jha et al. 2010; Stanley and Jha

2009; Stanley et al. 2011), and into prisons (Menahemi and Ariel 1997, Phillips 2008; Samuelson et al. 2007).

7. Saki Santorelli contributed in profoundly creative and incisive ways to this form of inquiry in MBSR.
8. Twenty years later, as recounted in his powerful and illuminating contribution to this special issue, Saki Santorelli found himself facing the institutional dissolution of the Stress Reduction Clinic. Remarkably, he steered a path through cycles of chaos, uncertainty, and loss to a new and even more vigorous life, a veritable phoenix rising out of the ashes. The marvel and gratitude of all of us who cared about the clinic's fate and its role in the world is boundless.
9. Here I am using the verb 'to sit' as an umbrella term to cover the entire range of formal and informal practices and the moment by moment experiencing of anything and everything arising from engaging in the retreat.
10. Studies of MBSR suggest that mindfulness training can influence and modulate different modes of self-referencing in anatomically distinct networks, one medial, one lateral, within the cerebral cortex (Farb et al. 2007). Such findings may ultimately contribute to a richer understanding within psychology of the term 'self' and its meanings, and thus a new and deeper appreciation of its functional expressions and relativistic and dynamical nature. This in itself could transform the field of psychology.

REFERENCES

BARDACKE, N. Forthcoming. *Mindful birthing: Training the mind, body and heart for childbirth and beyond*. New York: Harper Collins.

BENSON, H. 1975. *The relaxation response*. New York: Morrow.

BOWEN, S., N. CHAWLA, and G. A. MARLATT. 2011. *Mindfulness-based relapse prevention for addictive behaviors*. New York: Guilford Press.

BURNETT, R., and C. CULLEN. 2010. The mindfulness in schools project. http://www.mindfulnessinschools.org.

BUSWELL, R. E., JR. 1991. *Tracing back the radiance: Chinul's Korean way of zen*. Honolulu: University of Hawaii Press.

BOHM, D. 1980. *Wholeness and the implicate order*, 19–26. London: Routledge Kegan Paul.

BROWN, D. P., and J. ENGLER. 1980. A Rorschach study of the stages of mindfulness meditation. *Journal of Transpersonal Psychology* 12: 143–92.

CULLEN, M. 2006. Mindfulness: The Heart of Buddhist Meditation? A Conversation with Jan Chozen-Bays, Joseph Goldstein, Jon Kabat-Zinn, and Alan Wallace. *Inquiring Mind* 22: 4–7 ff.

CULLEN, M. 2008. On mindfulness. In: *Emotional awareness: A conversation between the Dalai Lama and Paul Ekman*, 61–3. New York: Times Books.

DEATHERAGE, G. 1975. The clinical uses of mindfulness meditation techniques in short-term psychotherapy. *Journal of Transpersonal Psychology* 2: 133–44.

DEPRAZ, N., F. J. VARELA, and P. VERMERSCH. 1999. The gesture of awareness: An account of its structural dynamics. In *Investigating phenomenal consciousness*, ed. M. Velmans, 121–36. Amsterdam: John Benjamins.

EPEL, E. S., E. H. BLACKBURN, J. LIN, F. S. DHABHAR, N. E. ADLER, J. D. MORROW, and R. M. CAWTHON. 2004. Accelerated telomere shortening in response to life stress. *Proceedings of the National Academy of Sciences, USA* 101: 17312–15.

EPSTEIN, R. M. 1999. Mindful practice. *Journal of the American Medical Association* 282: 833–9.

FARB, A. S., Z. V. SEGAL, H. MAYBERG, J. BEAN, D. MCKEON, Z. FATIMA, and A. K. ANDERSON. 2007. Attending to the present: Mindfulness meditation reveals distinct neural modes of self-referencing. *Social Cognitive and Affective Neuroscience* 2: 313–22.

GETHIN, R. 1998. *The foundations of Buddhism*. Oxford: Oxford University Press.

GOLDSTEIN, J. 1976. *The experience of insight: A natural unfolding*. Santa Cruz: Unity Press.

GOLEMAN, D. J., and G. E. SCHWARTZ. 1976. Meditation as an intervention in stress reactivity. *Journal of Consulting and Clinical Psychology* 44: 456–66.

GRANT, J. A., J. COURTEMANCHE, E. G. DUERDEN, G. H. DUNCAN, and P. RAINVILLE. 2010. Cortical thickness and pain sensitivity in Zen Meditators. *Emotion* 10: 43–53.

GROSSMAN, L., M. COWAN, and R. SHANKMAN. 2010. Mindful schools. http://www.mindfulschools.org.

GROSSMAN, P., L. KAPPOS, H. GENSINCKE, M. D'SOUSA, D. C. MOHR, I. K. PENNER, and C. STEINER. 2010. MS quality of life, depression, and fatigue improve after mindfulness training: a randomized trial. *Neurology* 75(13): 1141–49.

HANH, T. N. 1975. *The miracle of mindfulness: A manual on meditation*. Boston, MA: Beacon.

HÖLZEL, B. K., J. CARMODY, K. C. EVANS, E. A. HOGE, J. A. DUSEK, L. MORGAN, R. K. PITMAN, and S. W. LAZAR. 2010. Stress reduction correlates with structural changes in the amygdala. *Social Cognitive and Affective Neuroscience* 5(1): 11–17.

HÖLZEL, B. K., J. CARMODY, M. VANGEL, C. CONGLETON, S. M. YERRAMSETTI, T. GARD, and S. W. LAZAR, 2011. Mindfulness practice leads to increases in regional gray matter density. *Psychiatry Research Neuroimaging* 191(1): 36–43.

JHA, A. P., E. A. STANLEY, A. KIYONAGO, L. WONG, and L. GELFAND. 2010. Examining the protective effects of mindfulness training on working memory capacity and affective experience. *Emotion* 10: 54–64.

KABAT-ZINN, J. 1982. An out-patient program in Behavioral Medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry* 4: 33–47.

KABAT-ZINN, J. 1994. *Wherever you go, there you are*. 4. New York: Hyperion.

KABAT-ZINN, J. 1990. *Full catastrophe living*. 163. New York: Dell.

KABAT-ZINN, J. 1999. Indra's net at work: The mainstreaming of Dharma practice in society. In *The psychology of awakening*, ed. G. Watson, S. Batchelor, and G. Claxton, 225–49. London: Random House/Rider.

KABAT-ZINN, J. 2000. Participatory medicine. *Journal of the European Academy of Dermatology and Venereology* 14: 239–40.

KABAT-ZINN, J. 2003. Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology Science and Practice* 10: 144–56.

KABAT-ZINN, J. 2005a. Dying before you die. In *Coming to our senses*. by J. Kabat-Zinn, 486–90. New York: Hyperion.

KABAT-ZINN, J. 2005b. Dying before you die–deux. In *Coming to our senses*. by J. Kabat-Zinn, 491–3. New York: Hyperion.

KABAT-ZINN, J. 2005c. Dukkha magnets. In *Coming to our senses*. by J. Kabat-Zinn, 130–3. New York: Hyperion, .

KABAT-ZINN, J. 2005d. Dialogues and discussions. In *Coming to our senses*. by J. Kabat-Zinn, 448–50. New York: Hyperion.

KABAT-ZINN, J. 2005e. *Coming to our senses*. by J. Kabat-Zinn, 108. New York: Hyperion.

KABAT-ZINN, J. 2005f. *Coming to our senses*. by J. Kabat-Zinnm, 172–83. New York: Hyperion.

KABAT-ZINN, J. 2009. Foreword. In *Clinical handbook of mindfulness*, ed. F. Didonna, xxv–xxxiii. New York: Springer.

KABAT-ZINN, J. 2010. Foreword. In *Teaching mindfulness*. by D. McCown, D. Reibel, and M.S. Micozzi, xix–xxii. New York: Springer, .

KABAT-ZINN, J., and A. CHAPMAN-WALDROP. 1988. Compliance with an outpatient stress reduction program: Rates and predictors of completion. *Journal of Behavioral Medicine* 11: 333–52.

KABAT-ZINN, J., and R. J., DAVIDSON, eds. 2011. *The mind's own physician: A scientific dialogue with the Dalai Lama on the healing power of meditation*. Oakland, CA: New Harbinger.

KABAT-ZINN, J., L. LIPWORTH, and R. BURNEY. 1985. The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of Behavioral Medicine* 8: 163–90.

KABAT-ZINN, J., L. LIPWORTH, R. BURNEY, and W. SELLERS. 1986. Four year follow-up of a meditation-based program for the self-regulation of chronic pain: Treatment outcomes and compliance. *Clinical Journal of Pain* 2: 159–73.

KAISER-GREENLAND, S. 2010. *The mindful child*. New York: Free Press.

KAPLEAU, P. 1965. *The three pillars of Zen*. Boston, MA: Beacon.

KRASNER, M. S., R. M. EPSTEIN, H. BECKMAN, A. L. SUCHMAN, B. CHAPMAN, C. J. MOONEY, and T. E. QUILL. 2009. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *Journal of the American Medical Association* 302: 1284–93.

KRISTELLER, J. L., R. A. BAER, and R. QUILLIAN-WOLEVER. 2006. Mindfulness-based approaches to eating disorders. In *Mindfulness-based treatment approaches: A clinician's guided to evidence base and applications*, ed. R. Baer, 75–91. San Diego, CA: Elsevier.

KORNFIELD, J. 1977. *Living Buddhist masters*. Santa Cruz: Unity.

KRISHNAMURTI, J. 1969. *Freedom from the known*. New York: Harper and Row.

KRISHNAMURTI, J. 1979. *The wholeness of life*. New York: Harper and Row.

LUK, C. 1974. *The transmission of the mind outside the teaching*. New York: Grove Press.

LUPIEN, S. J., B. S. MCEWEN, M. R. GUNNAR, and C. HEIM. 2009. Effects of stress throughout the lifespan on brain, behavior, and cognition. *Nature Reviews: Neuroscience* 10: 434–45.

MAHARSHI, R. 1959. *The collected works of Ramana Maharshi*, edited by A. Osborne. New York: Weiser.

MCBEE, L. 2008. *Mindfulness-based elder care*. New York: Springer.

MELZACK, R., and C. PERRY. 1975. Self-regulation of pain: The use of alpha feedback and hypnotic training for the control of chronic pain. *Experimental Neurology* 46: 452–69.

MENAHEMI, A., and E. ARIEL. 1997. *Doing time, doing Vipassana*, Karuna Films Ltd. http://www.karunafilms.com/Dtdv/Distribution.htm

MU, SOENG. 2004. *Trust in mind: The rebellion of Chinese Zen*. Boston, MA: Wisdom.

NISARGADATTA, M. 1973. *I Am That*. Vol. 1 and 2. Bombay: Chetana.

NYANAPONIKA, T. 1962. *The heart of Buddhist meditation*. 24. San Francsico: Weiser.

PERLMAN, D. M., T. V. SALOMONS, R. J. DAVIDSON, and A. LUTZ. 2010. Differential effects on pain intensity and unpleasantness of two meditation practices. *Emotion* 10: 65–71.

PHILLIPS, J. 2008. *Letters from the Dhamma brothers: Meditation behind bars*. Onalaska, WI: Pariyatti Press.

SAMUELSON, M., J. CARMODY, J. KABAT-ZINN, and M. A. BRATT. 2007. Mindfulness-based stress reduction in Massachusetts correctional facilities. *The Prison Journal* 2: 254–68.

SANTORELLI, S. F. 1999. *Heal thy self: Lessons on mindfulness in medicine*, 45–50. New York: Bell Tower, NY.

SCHWARTZ, G. E., R. J. DAVIDSON, and D. J. GOLEMAN. 1978. Patterning of cognitive and somatic processes in the self-regulation of anxiety: Effects of meditation versus exercise. *Psychosomatic Medicine* 40: 321–8.

SEGAL, Z. V., J. M. G. WILLIAMS, and J. D. TEASDALE. 2002. *Mindfulness-based cognitive therapy for depression*. New York: Guilford Press.

SEUNG SAHN. 1976. *Dropping ashes on the Buddha*. New York: Grove Press.

SHAPIRO, D. H. 1980. *Meditation: Self-regulatory strategy and altered state of consciousness*. New York: Aldine.

SHENG-YEN. 2001. *Hoofprint of the ox: Principles of the Chan Buddhist path as taught by a modern Chinese master*. Oxford: Oxford University Press.

SIBINGA, E. M., and A. W. WU. 2010. Clinician mindfulness and patient safety. *Journal of the American Medical Association* 304: 2532–3.

STANLEY, E. A., and A. P. JHA. 2009. Mind fitness: Improving operational effectiveness and building warrior resilience. *Joint Force Quarterly* 55: 144–51.

STANLEY, E. A., J. M. SCHALDACH, A. KIYONAGA, and A. P. JHA. 2011. Mindfulness-based mind fitness training: A case study of a high stress pre-deployment military cohort. *Cognitive and Behavioral Practice*. DOI: 10.1016/j.cbpra.2010.08.002.

THANISSARO, BHIKKHU. 2010. http://www.accesstoinsight.org/tipitaka/sn/sn38/sn38.014.than.html. http://www.accesstoinsight.org/ptf/dhamma/sacca/index.html.

TRUNGPA, C. 1969. *Meditation in action*. Boston: Shambhala.

UCOK, O. 2007. Dropping into being: Exploring mindfulness as lived experience. 5th annual international conference on Mindfulness for Clinicians, Researchers and

Educators: Integrating Mindfulness-Based Interventions into Medicine, Healthcare and Society, Worcester, MA. Manuscript in preparation.

VARELA, F. J., E. THOMPSON, and E. ROACH. 1991. *The embodied mind: Cognitive science and human experience*. Cambridge: MIT.

WALLACE, B. A., and B. HODEL. 2008. *Embracing mind: The common ground of science and spirituality*, 121–3. Boston: Shambhala.

WALSH, R. N. 1977. Initial meditative experiences I. *Journal of Transpersonal Psychology* 9: 151–92.

WALSH, R. N. 1978. Initial meditative experiences II. *Journal of Transpersonal Psychology* 10: 1–28.

WALSH, R. N. 1980. The consciousness disciplines and the behavioral sciences: Questions of comparison and assessment. *American Journal of Psychiatry* 137: 663–73.

WILLIAMS, J. M. G., R. CRANE, J. SOULSBY, M. BLACKER, F. MELEO-MEYER, and R. STAHL. 2007. The inquiry process–aims, intentions and teaching considerations. Personal communication.

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