

Foreword: Seeds of a necessary global renaissance in the making: the refining of psychology's understanding of the nature of mind, self, and embodiment through the lens of mindfulness and its origins at a key inflection point for the species

Jon Kabat-Zinn

Address

University of Massachusetts Medical School, Worcester, MA,
United States

Corresponding author: Kabat-Zinn, Jon (mindfulness@umassmed.edu)

Current Opinion in Psychology 2019, **28**:xi–xvii

This review comes from a themed issue on **Mindfulness**

Edited by **Amit Bernstein, Dave Vago** and **Thorsten Barnhofer**

For a complete overview see the [Issue](#) and the [Editorial](#)

Available online 21st February 2019

<https://doi.org/10.1016/j.copsyc.2019.02.005>

2352-250X/© 2019 The Author. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

The faculty of voluntarily bringing back a wandering attention, over and over again, is the very root of judgment, character, and will. No one is *compos sui* if he have it not. An education which should improve this faculty would be the education par excellence. But it is easier to define this ideal than to give practical instructions for bringing it about.

William James, *The Principles of Psychology* (1890)
[1]

When William James penned these words in the late nineteenth century at Harvard University, in Cambridge Massachusetts, he had no inkling that on the other side of the planet, there were people at that very moment who were not only cognizant of but highly developed in operationalizing through rigorous practices the very potential he was intuiting and articulating so skillfully—that is, recognizing and taming in the service of greater clarity and embodied wisdom, the tendency of our attention to wander. I am speaking, of course, about the systematic cultivation of mindfulness, or moment-to-moment, non-judgmental, non-reactive attending, and the awareness, insight, and potential liberation that can arise from that intentional cultivation.

James offered his somewhat wistful and profoundly insightful rumination on the verge of the final decade of the Nineteenth Century. Now, on the threshold of the third decade of the Twenty-first Century, we find

ourselves, as his inheritors and direct descendants in the domain of Western psychology and related disciplines, including contemplative neuroscience and neuro-phenomenology, in what would have been for James an unimaginable world of interconnectedness and speed-of-light exchange of information. Thus, we can share methods and insights—first person, second person, and third person, in Francisco Varela's formulation—for investigating and interrogating the nature of mind and the nature of reality across cultures and traditions that were simply orthogonally out of reach of each other in that earlier era. At this moment on the planet, in what is now an entirely interconnected global context, one might argue that there is a way in which mindfulness and the larger universally applicable and inclusive dharma framework that describes, invites, and nurtures its rigorous and well-mapped-out cultivation and ensuing potential benefits somehow became too important and too vital to humanity as a whole to keep sequestered within the various monastic traditions in Asia in which it arose—and where it was nurtured, refined, shaped, and clarified in various ways through both practice and textual commentary, and thus kept alive for over 2600 years. I see this multi-channeled wisdom stream as a precious human treasure and inheritance, without exaggeration a critical global resource in the face of what humanity is facing as a species, in this moment and in the coming decades [2].

Several hundred years ago, Buddhism and Buddhadharma began incrementally encountering and engaging the West in a number of well-documented ways [3]. With the development of Mindfulness-Based Stress Reduction (MBSR) in a department of medicine at a mainstream academic medical center hospital in 1979 and its ensuing spread, coupled now with the development of an ever-growing family of other mindfulness-based interventions such as Mindfulness-Based Cognitive Therapy (MBCT) [4,5], the universal value and potential of mindfulness meditation as a formal practice and as a way of being—after a two-decade incubation period under the radar—gradually started to find its own ways in the world, catalyzed early on in large part by reports in the scientific literature of its clinical effectiveness in people suffering from a wide range of chronic medical conditions. Much like snowmelt flowing inexorably downhill from a high mountain source, coursing around obstacles, finding multiple branching pathways down under the gentle tug of gravity, and ultimately merging into rivers of major significance, mindfulness has followed a similar course,

moving into the mainstream world beyond the confines of the tradition that most defined, nurtured, and articulated it.¹ And hopefully, this emergence is only getting started.

From the beginning, the gravitational pull has been the promise of liberation from suffering and the potential we all harbor as human beings for awakening and for embodying not only wellbeing, but greater wisdom and wise action in the conduct of our individual lives and in how we carry ourselves in the world as a species. This challenge/opportunity has never been more necessary and more urgent than it is now.

We might ask why this interest in mindfulness meditation exploded as it did when it did. What was touched in so many clinicians, researchers, and students that they gradually or suddenly shifted their focus of study to include meditation and its effects, and to take up the practice themselves? These are large questions for another time. And it might be a subject of introspection for those contributing to this volume, as well as those making use of it.²

The unfolding of mindfulness into the mainstream did not come about merely because mindfulness can be associated with an element of what is technically known as *bare attention* and the instrumental bringing back of a wandering attention over and over again, essential as that practice is. It came about in large measure, at least to my mind, because the cultivation of mindfulness also includes an entirely different dimension, the non-instrumental nurturing of ‘clear comprehension’ or ‘clear knowing’ (Pali: *sati-pañña* or *sati-sampajañña*) [8–10]. Bare attention and clear knowing are, as Shunryu Suzuki put it in another context [11], “not two, not one.” Without insight, without the wisdom dimension, any realization of the non-self and impermanent nature of momentary experience and of the interconnectedness of all things—dependent of course on all our multiple human intelligences, including the conceptual domain (which by itself, un-tempered, can lead to delusion)—has almost no chance to develop fully. The confluence of the instrumental and the non-instrumental on many different levels [12] defines the essence of what we call mindfulness as a formal meditation practice and as a way of being, the practice that the Buddha famously declared to be “the direct path” to the extinguishing of suffering and to liberation (Sanskrit: *nirvana*).³

Improbable as it may have seemed from the perspective of 1979, science has increasingly become a principal engine driving widespread interest in mindfulness

meditation and its adoption in the form of a systematic personal practice of some kind by millions of people around the world. The overall thrust of the studies over the past almost 40 years represented in the 2017 graph featured in the next section of this paper, as well as the papers comprising the present volume, are increasingly, if indirectly, mostly through press reports and popular articles on the subject, influencing the *zeitgeist* and motivating large numbers people to systematically observe and befriend their own minds, bodies, and unfolding lives through the systematic cultivation of mindfulness, both formally and informally. In parallel, the weight of the scientific evidence to date has been a major impetus in efforts to bring greater mindfulness in a variety of ways into various professional disciplines and social movements, such as the practice of medicine and health care [14], psychology and brain science [15,16], education at all levels [17–21], the law [22,23], business [24,25] and leadership [26], as well as, importantly, recognizing and acting to transform the suffering engendered by poverty, racism, and institutionalized injustice [27–31].

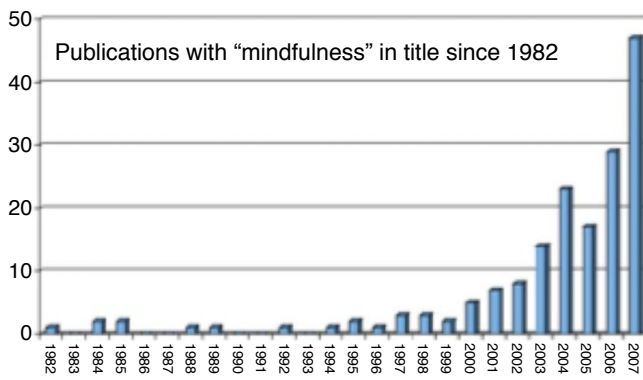
In toto, the growing momentum of these societal and institutional emergences, and many others, plus their increasing coverage in the mainstream press as well as in professional and general public book publishing, is carving its own pathways and multiple tributaries into the world. The very fact that mindfulness has become a legitimate and well-funded field of research, with multiple applications in so many different domains, is itself diagnostic of this remarkable confluence of science and contemplative practices, bringing into the conversation monastics, Buddhist scholars, philosophers, social activists, artists, economists, journalists, business leaders, even politicians and political activists [see 32–34]. Such a diversity is reflected in the broad array of contributions to this special issue. This is science at its best, broadly open to different ways of knowing, and challenging its own limits, tacit assumptions, and implicit biases. I expect that both the inclusivity and the rigor will only continue and grow as a result of this special issue and the impact of the diverse perspectives, exacting scholarship, lines of evidence, critical acumen, and skepticism expressed in these pages.

When the first collection of research papers on the subject of mindfulness appeared in 2009 [35], the foreword I was asked to write for that volume included a curve originally developed with David Ludwig of Harvard Medical School to accurately depict the number of papers per year in the medical and scientific literature that had the term ‘mindfulness’ in the title. In subsequent years, in collaboration with David Black of the American Mindfulness Research Association and USC, we kept the bar graph format and developed an even more stringent screening algorithm so as to only include peer-reviewed papers rather than popular books and articles in the lay press. The original plot through 2007 looked like this:

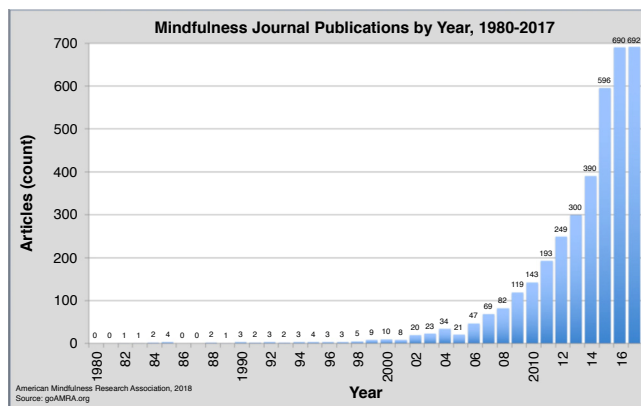
¹ Although in essence, being about attention and awareness, mindfulness is to one degree or another, common to all meditative traditions and cultures [6].

² For a critique of the scientific investigation of mindfulness, see [7].

³ Nirvana literally means extinguished, as in a flame deprived of oxygen [13].



The most recent analysis (https://goamra.org/wp-content/uploads/2018/02/AMRA_trends_2017.jpg) inclusive of 2017, looks like this:



The phenomenon speaks for itself. In the upper graph, we see that in 2007, there were a total of 69 papers that met criteria (although in the bottom graph, it is less than 50 for that year—due to corrections that took place in subsequent years using the current algorithm). In 2017, as seen in the lower figure, there were 692 papers that met criteria, over 10 times as many as 10 years before.⁴

The bottom curve clearly defines the contours of an emerging field that we now see has been developing at an exponential rate since crossing a threshold around 2002, after an extended latency of about 20 years or more.⁵ The data for 2017, with the same number of

⁴ Note added in proof: In 2018, the total number of papers was 842, with the values for 2016 and 2017 revised upward to, respectively, 782 and 799 (see [goAMRA.org](https://goamra.org)).

⁵ It might be of some sociological and historical interest in understanding the emergence of the widespread interest in and practice of mindfulness to conduct a retrospective analysis, including Fourier transform analysis if possible, of the milestone events and major accelerants occurring in clinical medicine, cognitive psychology, neuroscience, and the mainstream media that may have contributed to driving this exponential growth over the time period in question, as well as some of the critiques of this emergence, whether well founded or not [36].

papers as the year before, suggest that the sheer output in terms of number of papers may now be leveling off, as an exponential phenomenon inevitably must. Perhaps this is heralding a new era of maturation and the consolidation of a field of legitimate and rigorous scientific and scholarly inquiry and application. The broad scope of this endeavor has to encompass a number of domains: (1) the deep, undeniable, and essential dharma roots of mindfulness; (2) its various classical definitions and modern interpretations; (3) the increasing rigor with which it needs to be investigated in both the lab and the clinic, including the use of active controls [37]; (4) examining its historical, philosophical, and linguistic contextualization in different cultures; (5) its potential for a universal expression of embodied human wakefulness taking on many different cultural forms; all the while (6) keeping its universal dharma integrity, rigor, ethical core, and liberative perspective and intent intact. All these, as I see it, are a distributive responsibility of an emergent and diverse global community, of which the individual contributors to this particular volume are perhaps a small but not-insignificant representative subset—along with the much larger set of those who become its readers.

As noted above, mindfulness is now increasingly being applied in a vast array of life domains. Time will tell how the curve will unfold in future years, and whether the liberative non-dual essence and ethical foundation of mindfulness can be maintained and strengthened [38]. Yet we have only to peruse the various sections of this Special Issue to take in both the staggering breadth and the depth of this flourishing, as well as the inevitable challenges accompanying a field undergoing such rapid growth in such a relatively short period of time, and susceptible, as science always is, to certain kinds of oversimplifications, attempts at commodification, outright cynical exploitation, as well as the virus of scientism—compounded by the fact that the subject is meditation.

With all the attendant dangers and caveats, there is still no question in my mind that we have the potential to ignite a global renaissance catalyzed by the cultivation of mindfulness and heartfulness at this critical juncture in the arc of human evolution and development [39–41]. Perhaps this special issue is evidence that that renaissance may actually be more upon us than we recognize. And perhaps it can inspire us in various ways to recognize it, celebrate it, and double down as best we can on insuring that it is diverse in every meaning of that term, inclusive, and nurtured with utter integrity, scientific and philosophical rigor, and the gravitas that its potential value and promise may have for future generations—especially if it manages to avoid the Scylla of wanton exploitation, commercialism, and hype, and the Charybdis of a dime-store neoliberalism that it is sometimes accused of perpetrating or

succumbing to, I think wrongly [42].⁶ Nevertheless, articulating such concerns and proffering counter models for understanding the potential pitfalls of mindfulness as it moves increasingly into the mainstream [44] is extremely important to remind us of what might be possible if we do not succumb to many of these unfortunate and all-too-common trends, when the human mind does not know itself in its fullness (and its emptiness).

Having been invited to contribute the opening paper to this volume, and taking in the breadth and depth of the large number of contributions, it seems appropriate to speak here to the entire phenomenon and where it might be pointing, rather than single out particular papers or topics for comment, much as I have loved reading them. All the submissions contribute significant elements to our taking stock of where the field is at this moment in time, which is basically what a special issue is all about, as well as illuminating what directions might be most promising for future work. I found virtually all the submissions here illuminating and inspiring in one way or another. Individually and collectively, they invite a deep, on-going, and very welcome first-person, second person, and third person inquiry into the nature of mindfulness as well as its social and interpersonal dimensions and myriad applications and the challenges of teaching it in diverse settings. This is hardly surprising, since the special issue intentionally features, explores, and in some sense, celebrates the term *mindfulness*, and for good reason.⁷

It seems to me that it is *the conversation itself* that is most important in this ever-growing field—as we read and ponder these submissions from a broad range of colleagues and disciplines and take in and are informed by our sometimes congruent, sometimes differing viewpoints. And this phenomenon will continue as this special issue is read and studied by an expanding circle of researchers, clinicians, and students worldwide, the salient issues debated, and new work inspired by what is encountered here. I certainly have had that experience marveling at the scope of the submissions and the clarity and rigor behind them, even in the face of very poignant and sensitive concerns of key importance skillfully expressed in some of these contributions, including questions of cultural appropriation, decontextualization, cherry-picking of practices without recognizing cultural, contextual, and liberative frameworks, to name just a few challenging areas.

So let me pick up on the question of cultural appropriation as one way to frame the larger sociological and historical perspective on the explosion of interest in mindfulness in what we could call the mainstream world.⁸

⁶ See also Zuboff, S. [43].

⁷ For background, see: [8,39,40,49,50].

⁸ Eschewing the term ‘secular’ for a range of reasons (see Kabat-Zinn [39,40]).

Speaking personally, my early years of exposure and practice within the Dharma were in the Zen traditions (Chan, Sōn, Soto, Rinzai) where a common thread includes the assertion, attributed to Bodhidharma, that Zen mind is “a special transmission outside the sutras, independent of name and form.” While this may seem apostasy to certain traditions, to me it was and still is, 50 plus years later, a breath of fresh air—carrying the implication that it is the practice itself, in concert with skillful and compassionate teaching, often non-verbal, and the benefits of a sangha/community of practitioners, that catalyzes realization and awakening, beyond the conventional forms, sacred texts, and orthodoxies, wonderful as they may be within their own cultural context.⁹ MBSR grew out of that perspective on practice, and the sense that anybody and everybody might benefit to one degree or another from adopting a rigorous non-dual meditation practice if it were skillfully transmitted, honored the integrity and beauty (or we could say, Buddha nature/true nature) of each of the program participants/patients, and was framed in ways that were intimately relevant to the circumstances without being parochial, culturally threatening, or inordinately goal oriented. It always felt as if there was an element of the dharma doing itself in all this, coming from various Asian traditions and interfacing, as it had throughout its history, with new cultures and mores, and being both transforming and transformed itself in the process, while always remaining in essence the same, an expression of the Four Noble Truths, even though these might never be mentioned in an MBSR class.

However, ‘a direct transmission outside the sutras’ doesn’t invite ignorance of those teachings. Obviously, studying key texts is an essential and ongoing element of deepening one’s own dharma practice as a teacher and/or practitioner, and augmenting and challenging our understanding in accordance with the most profound and exquisite articulations of dharma, wherever they might be found.

Rather than an instance of cultural appropriation, MBSR was meant to be a first exposure to dharma wisdom in a new context and a new soil—a vehicle for bringing mindfulness into American culture through mainstream medicine in ways that felt honest and challenging, and wholly respectful of origins, without being wedded to ‘name and form,’ culture or tradition. What seemed most

⁹ See Varela, FJ, Thompson E, Rosch E: *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge: MIT Press, 1991, 2016, where this perspective was originally assumed (1991) and then later modified (2016, pg xxiii) by Thompson in the following way: “The extent to which Buddhist philosophical ideas either shaped or were shaped by meditative experience remains an open and interesting question in the field of Buddhist Studies.” Francisco Varela (1946–2000), polymath scientist, devoted dharma practitioner, and co-founder of the Mind and Life Institute [45].

important at the time was the potential for sharing a wisdom tradition and practice that was highly developed on one side of the planet, and hardly developed on the other side, at least in American culture as I saw it. It felt as if it was simply the dharma spilling out from one culture to another because it was a radical and also potentially practical solution to the problem of suffering at the intersection of scientific medicine and life itself, and how stressful and painful that suffering can be. The Buddha clearly taught that mindfulness, as expressed in the *Satipatthana Sutra*, is the direct path to liberation from that suffering. I took that seriously. As a devoted Zen student with my particular background as both a scientist and a meditator, the impulse to share it was compelling and commonsensical, especially because of the intuition that it would be hugely valuable for Americans of all walks of life to adopt a regular meditation practice in large numbers. I also felt that it could ultimately change the larger world we inhabit if we were, as a culture, to come to know our minds and bodies in that direct, first-person way through relatively intensive, skillfully taught, non-dual-from-the-get-go practice, in other words, that it could function as a public health intervention on multiple levels. The intention from the start was threefold: (1) to have meditation practice be framed and taught in a way that was commonsensical and wholly American, as an adventure of exploration of one's own mind, body, and life through paying close attention from moment to moment, and out of that attention and the awareness that emerges from it, possibly learning, growing, healing in multiple ways, and thereby transforming one's relationship to experience; (2) liberation from suffering and from the causes of suffering as articulated in the second noble truth, namely attachment, self-identification, craving, and of course, the three poisons (Pali: *kilesas*) of greed, aversion, and delusion; (3) the cultivation of embodied wisdom and compassion under the ethical umbrella of the Hippocratic Oath to first do no harm, impossible to live in alignment with without awareness, without mindfulness. For without mindfulness—and good friends willing to challenge you lovingly at times—how would you even know that you might be doing harm to yourself or to others?

It strikes me as beyond wonderful that 40 years on, we are having these conversations in scientific journals, in our labs, in our work environments, and in our lives. It is remarkable that we are collectively in dialogue around various dharma perspectives and their potential applications in the world in so many different forms and venues, and debating the very essence of wisdom, compassion, ethics, and skillful means, while not ignoring, I hope, the potential shadow side of our tendency to believe in and favor our own thought content, mental models, and narratives. Most importantly, it seems to me, we are all exploring in our own lives and work and intersecting worlds, to one degree or another, the value of

mindfulness as a *practice*, as a Way of being—with a capital W—a *Tao*, a path, a *bhavana* (a cultivation). And we are doing so each in accordance with our own individual perspectives and our own unique karmic tendencies, learning and growing from *direct experience* through our own meditation practice, if we have one, and also, through this special issue, from our second-person, more indirect experiences that involve listening to and learning from each other and from respected teachers, even if, or especially when we disagree. And I hope that we are all willing to disagree when we feel strongly about key points—the rigor and evolutionary import of our entire enterprise depends on it. Most important, I would say, is for us to approach both the challenges and the promise of this field and its potential myriad applications from a perspective of open-minded and open-hearted skepticism rather than orthodoxies of one kind or another—cultivating and keeping *don't know mind* as one of my teachers, Seung Sahn put it over and over again, and resting in that not-knowing, and the knowing that, mostly, we don't know.

I won't go into individual issues raised or highlighted in particular papers, as there are far too many to do them justice. Suffice it to say that this special issue is itself evidence, if we need more evidence, and we always do, that we are now part of an ever-growing, ever-learning, ever-expanding sangha of intentionality and embodied liberation, not for ourselves, but for the planet, for the species, for all beings who are suffering, including those who may be proximal causes of that suffering in others, which in the end might be all of us to one degree or another. For that reason alone, we need each other to reflect our deepest nature back to us—a sangha of nurturance, kindness, compassion, wisdom, grounded in ethics, and in particular, in non-harming and wholesome action. To me, this is a definition of true strength—of character, of purpose, of community, of safety. We need each other because we are part of a larger planetary field of wholeness and intelligence unfolding. As individuals, we can all too easily delude ourselves to one degree or another. As scientists, we know that the truth, what we know, is never complete, absolute. It is always contextual, provisional. Absolutism tends toward tyranny, even if it is the tyranny of attachment to view and to self, and the othering of those with whom we disagree. The suffering and potential harm this can cause, and does cause, is immense, even in science, even in medicine. We need each other to keep ourselves honest—to grow the health of our collective human enterprise at this juncture on the planet. This volume and the work and insight and the love behind it is an expression of that need, and a celebration of its value and its future potential, here and now.

The original aspiration for MBSR has been realized—namely that it would serve as a broadly replicable model

and ‘proof of concept’ that careful instruction in and cultivation of a universal dharma wisdom through the practice mindfulness, writ both small, in terms of its instructional set, and large in terms of its origins and liberative potential if operationalized and embodied with dharma integrity, would be of major benefit to both individual health across the lifespan, and ultimately perhaps, the health of the body-politic, human society, and life on this planet going forward. This volume is a testament to the vitality of the energies that have been unleashed over mostly the past twenty years, including all the different streams within psychology, medicine, neuroscience, education, philosophy, and many other disciplines represented in this issue.

Of course, it is inevitable that there will be differing viewpoints and multiplicity of perspectives on the field itself and where it might be going; on the universality of what I am referring to as the dharma; on the question of the relationship of mindfulness to compassion [46]; on whether mindfulness functions as a wholesome or neutral mental factor; on whether it is ethical or wise or merely naive to train certain segments of society, such as the military, border agents, police, or corporate and tech leaders in mindfulness; and many more. Hopefully this volume will turn up the volume on these conversations as well, for the benefit of all, and perhaps lead to deeper inquiry and a greater understanding and clarity about how the core elements of our humanity may or may not be influenced by such radical acts of love as taking one’s seat, examining what is on one’s mind, questioning one’s attachment to views, unexamined beliefs, and tacit assumptions, recognizing the fundamental interconnectedness of the universe, and resting in awareness itself, outside of time.

In another vein, the ongoing dialogues among scientists, scholars, and contemplatives that have transpired over the past 30 plus years, catalyzed by the Dalai Lama’s interest in science and by the Mind and Life Institute have been a huge contributor to the growth of this field. What is more, the large number of Varela grants [45] distributed over the years to both younger and more established scientists (many of whom are contributors to this Special Issue), along with a number of other key accelerants to the exponential rise in Figure 1, furthered this expansion. Varela grants were meant to catalyze an ever-deepening quality in the investigations of the nature of mind, the first person ones associated with our own interior laboratory of individual meditation practice (including its potential clinical and research applications), contemplative introspection, and inquiry, and the third person ones, commonly associated with scientific study of the brain, nervous system, body and mind of study subjects, in addition to vital second-person ones where we listen to and learn from each other and from experienced meditation teachers.

To my mind, the practice of mindfulness is, as suggested above, ultimately a radical act of love—love of wisdom, love of dharma, love of the possible, love of humanity’s beauty and potential when the human mind is willing to know itself in its fullness. This is the Renaissance. It is unfolding here and now. The cornucopia that is this special issue is an expression of it, and will inevitably be an exponent of it as well, given its richness. On those occasions when we do succumb to greed, hatred, and ignorance and fall back into a mind that does not remotely know itself in its fullness or even care to, whether we are talking about individuals, businesses, banks, financial institutions, government, or surveillance capitalism and their various attendant dangers, toxicity, and apologists, we generate increasingly dystopian glidpaths into systemic suffering and harm, our own and that of others [47].

So this special issue, emerging in 2019, is very timely. Hopefully, it will help catalyze another level of embodied wakefulness and compassion in the world going forward, and deepen our understanding of what we actually mean by “mindfulness” and the many ways in which we might cultivate it rigorously and with integrity in the world and in our own lives. And from the perspective of psychology as a discipline and potential resource for humanity, hopefully this special issue will also give rise to a next generation of research studies probing the very nature of what we mean by *mind*, by *awareness*, by *compassion*, by *embodiment*, by *interconnectedness*, and by self and selflessness, and how these relate to our social and ecological natures and our common humanity as well as to our individuality. That would certainly be 21st Century psychology at its most rigorous and useful [48]. May this ongoing quest and articulation profoundly serve the needs of humanity at a critical moment in our evolution as a species, when embodied insight into our own nature and how to live and even to thrive without harming ourselves, each other, and the natural world has never been more critical.

References

1. James W: *The Principles of Psychology*. Cambridge, MA: Harvard University Press; 1983. p. 401.
2. Harari YN: *21 Lessons for the 21st Century*. New York: Spiegel & Grau; 2018, 314-322.
3. Batchelor S: *The Awakening of the West: The Encounter of Buddhism and Western Culture*. Williamsville, VT: Echo Point Books; 2011.
4. Crane RS, Brewer J, Feldman C, Kabat-Zinn J, Santorelli S, Williams JMG, Kuyken W: **What defines mindfulness-based programs? The warp and the weft**. *Psychol Med* 2017, **6**:990-999.
5. Segal ZV, Williams M, Teasdale J: *Mindfulness-Based Cognitive Therapy for Depression*. second edition. New York: Guilford; 2013.
6. Kabat-Zinn, J. *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. New York: Bantam; 2013, pg. lxii.

7. Thompson E: **Looping effects and the cognitive science of mindfulness meditation.** In *Meditation, Buddhism, and Science*. Edited by McMahan DL, Braun E. New York: Oxford; 2017:47-61.
8. Anālayo B: *Sattipatthana: The Direct Path to Realization*. UK: Windhorse, Cambridge; 2003, 39-43.
9. Thera Nyanaponika: *The Heart of Buddhist Meditation*. San Francisco: Weiser Books; 1962, 36-49.
10. Buddhadasa B: *Heartwood of the Bodhi Tree*. Boston: Wisdom; 1994; 138-139.
11. Suzuki S: *Zen Mind, Beginner's Mind*. New York: Weatherhill; 1970. p. 25.
12. Kabat-Zinn J: **Two ways of thinking about meditation—the instrumental and the non-instrumental.** *Meditation is Not What You Think*. New York, NY: Hachette; 2018, 49-53.
13. *American Heritage Dictionary of the English Language*, third edition, 1996, pg. 1225 and pg. 2130.
14. Epstein R: *Attending: Medicine, Mindfulness, and Humanity*. New York: Scribner; 2017.
15. Brown KW, Creswell JD, Ryan RM: *Handbook of Mindfulness: Theory, Research, and Practice*. NY: Guilford; 2015.
16. Brandsma R: *The Mindfulness Teaching Guide: Essential Skills and Competencies for Teaching Mindfulness-Based Interventions*. Oakland, CA: New Harbinger; 2017.
17. Including so-called physical education: Kaufman KA, Glass CR, Pineau TR: *Mindful Sport Performance Enhancement: Mental Training for Athletes and Coaches*. Washington, D.C.: American Psychological Association (APA); 2018.
18. Rechtschaffen D: *The Way of Mindful Education: Cultivating Wellbeing in Teachers and Students*. New York: W.W. Norton; 2014.
19. Jennings PA: *Mindfulness for Teachers: Simple Skills for Peace and Productivity in the Classroom*. New York: W.W. Norton; 2015.
20. Schonert-Reichl KA, Roeser R (Eds): *Handbook of Mindfulness in Education: Integrating Theory and Research into Practice*. New York: Springer; 2016.
21. Barbezat DP, Bush M (Eds): *Contemplative Practices in Higher Education: Powerful Methods to Transform Teaching and Learning*. San Francisco: Jossey-Bass; 2014.
22. Riskin LL: *The Contemplative Lawyer: On the Potential Contributions of Mindfulness Meditation to Law Students, Lawyers and their Clients*. Harvard Negotiation Law Review; 2002:1-141.
23. Magee R: *The Inner Work of Racial Justice*. New York: TarcherPerigee; 2019.
24. Chaskalson M: *The Mindful Workplace: Developing Resilient Individuals and Resonant Organizations with MBSR*. Oxford, UK: Wiley-Blackwell; 2011.
25. Gelles D: *Mindful Work: How Meditation is Changing Business from the Inside Out*. New York: Houghton Mifflin Harcourt; 2015.
26. Koole W: *Mindful Leadership: Effective Tools to Help You Focus and Succeed*. Amsterdam: Warden; 2013.
27. Williams AK, Owens R, Syedullah J: *Radical Dharma: Talking Race, Love, and Liberation*. Berkeley, CA: North Atlantic Books; 2016.
28. King R: *Mindful of Race: Transforming Racism from the Inside Out*. Boulder, CO: Sounds True; 2018.
29. Yang L: *Awakening Together: The Spiritual Practice of Inclusivity and Community*. Somerville, MA: Wisdom; 2017.
30. Samuelson M, Carmody J, Kabat-Zinn J, Bratt MA: **Mindfulness-based stress reduction in Massachusetts correctional facilities.** *Prison J* 2007, **87**:254-268.
31. Kabat-Zinn J, de Torrijos F, Skillings AH, Blacker M, Mumford GT, Levi-Alvares D, Santorelli S, Rosal MC: **Delivery and effectiveness of a dual language (English and Spanish) mindfulness-based stress reduction (MBSR) program in the inner city—a seven year experience: 1992–1999.** *Mindfulness and Compassion* 2016, **1**:2-13.
32. Mind and Life Dialogues. (1987–2013). <https://www.mindandlife.org/mind-and-life-dialogues/>.
33. All Party Parliamentary Group. Mindful Nation UK: Report by the Mindfulness All-Party Parliamentary Group. Retrieved from https://www.themindfulnessinitiative.org.uk/images/reports/Mindfulness-APPG-Report_Mindful-Nation-UK_Oct2015.pdf.
34. Bristow J: **Mindfulness in Politics and Public Policy.** *Curr Opin Psychol* 2019, **28**:87-91.
35. Didonna F: *Handbook of Mindfulness*. Springer; 2009. pp. xxv-xxxiii.
36. Harrington A, Dunne JD: **When mindfulness is therapy: ethical qualms, historical perspectives.** *Am Psychologist* 2015, **70**:621-633.
37. Rosenkranz MS, Dunne JD, Davidson RJ: **The next generation of mindfulness-based intervention research: what have we learned and where are we headed?** *Curr Opin Psychol* 2019, **28**:179-183.
38. Kabat-Zinn J: **Too early to tell: the potential impact and challenges—ethical and otherwise—inherent in the mainstreaming of dharma in an increasingly dystopian world.** *Mindfulness* 2017, **8**:1125-1135.
39. Kabat-Zinn J: **Some reflections on the origins of MBSR, skillful means, and the trouble with maps.** *Contemp Buddhism* 2011, **11**:281-306.
40. Williams JMG, Kabat-Zinn J: *Mindfulness: Diverse Perspectives on its Meaning, Origins, and Applications*. UK: Routledge; 2013; 281-306.
41. Kabat-Zinn J: *Mindfulness for All: The Wisdom to Transform the World*. NY: Hachette; 2019.
42. Purser RE, Petranker J: **Transformation through inquiry: mindfulness for the neoliberal self.** *Tikkun* 2018 In: https://www.tikkun.org/newsite/author/a_petranker/.
43. Zuboff S: *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: Hachette, 2019, and the fundamental importance of self-awareness as a counter force to digital “heteronomy” as opposed to autonomy, p. 308.
44. Purser RE: **Clearing the muddled path of traditional and contemporary mindfulness: a response to Monteiro, Musten, and Compson.** *Mindfulness* 2015, **6**:23-45.
45. Mind and Life Institute <https://www.mindandlife.org/varelagrants/>.
46. Condon P, Desbordes G, Miller WB, DeStefano D: **Meditation increases compassionate responses to suffering.** *Psychol Sci* 2013, **24**:2125-2127.
47. Giridharadas A: *Winners Take All: The Elite Charade of Changing the World*. New York, NY: Knopf; 2018.
48. Farb NAS, Segal ZV, Mayberg H *et al.*: **Attending to the present: mindfulness meditation reveals distinct neural modes of self-reference.** *Soc Cogn Affect Neurosci* 2007, **2**:313-322 <http://dx.doi.org/10.1093/scan/nsm030>.
49. Anālayo B: *Introducing Mindfulness: Buddhist Background and Practical Exercises*. Cambridge, UK: Windhorse; 2020.
50. Suzuki S: *Zen Mind, Beginner's Mind: Informal Talks on Zen Meditation and Practice*. New York: Weatherhill; 1970, 113-115.

Jon Kabat-Zinn is a Professor of Medicine emeritus, University of Massachusetts Medical School and founder of its Center for Mindfulness in Medicine, Health Care, and Society, and of MBSR (mindfulness-based stress reduction).