Katie Witkiewitz
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Sarah Bowen

Advances in Psychotherapy –
Evidence-Based Practice

Mindfulness

Mindfulness

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Advances in Psychotherapy – Evidence-Based Practice

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Preface

The theories, understandings, and practices reviewed in this book are rooted in a rich and ancient tradition. We want to provide a brief and simplified introduction to contemporary applications of "mindfulness" as delivered within secularized mindfulness-based interventions. This is by no means a complete account of mindfulness practices, and can at best provide a very broad overview to a longstanding, multifaceted, and now multi-cultured system of understanding and practice. This book is intended for those who are curious about the roots and practices of mindfulness, and the directions of current science and clinical applications. It is a starting place for readers interested in learning about an extraordinarily rich and honored practice, and the ways in which mindfulness training has become foundational to many evidenced-based approaches in psychology.

We dedicate this book to Dr. G. Alan Marlatt (1941–2011) who provided the foundation for an evidenced-based and integrated mindfulness approach to the prevention of addictive behavior relapse. We also dedicate this work to the many research participants and clients who continually inspire us and remind us of the importance of the dissemination of mindfulness-based interventions. We would also like to acknowledge Dr. Danny Wedding, who provided invaluable comments and editorial feedback, and Dr. Linda Sobell, who invited us to author this book.

KW dedicates this book to her current and former students who continue to support this work.

CRR dedicates this book to his parents, Richard and Cindy, who have taught him what it means to be kind and compassionate.

DDC dedicates this book to Don, whose bountiful love, support, and quiet patience never cease to amaze her.

SB dedicates this book to her many teachers, in their many forms, who continue to point her towards perseverance, authenticity, and growth.

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1

Description

1.1 Terminology and Definitions

Mindfulness is often translated as *seeing with discernment*. Mindfulness practice is a form of mental training that enhances one's ability to nonjudgmentally attend to the present moment: a phenomenological process oriented toward a gradual understanding of one's direct experience (Goldstein, 1980). As a type of consciousness, it has the quality of a presence of mind with a certain stability of focus (Bodhi, 2011). Increased mindfulness can afford an individual freedom from misperceptions, rigid and problematic thinking patterns, and self-imposed limitations that interfere with optimal mental and physical health. Mindfulness can also be understood by its contrast to restlessness, forgetfulness, behavioral and cognitive automaticity, and states of mind in which attention is focused elsewhere, such as preoccupation with memories, anticipation of the future, rumination, and worry (Brown & Ryan, 2003).

Western psychology often conceptualizes mindfulness as a collection of techniques, but also as a psychological process, a psychological trait, and the positive emotional outcomes of the practice itself (Hayes & Wilson, 2003). A commonly cited definition by Jon Kabat-Zinn (2002) is "the awareness that emerges by way of paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience, moment by moment" (p. 732). Similarly, two salient components of mindfulness are described by Bishop and colleagues as (a) the intentional regulation of attention to and awareness of the present moment and (b) a nonjudgmental and curious willingness to experience the content (thoughts, sensations, and feelings) of the present moment (Bishop et al., 2004). Shapiro and colleagues further distinguished attentional focus from intention (purpose of the focus) in her three factor model of attention, intention, and attitude (Shapiro, Carlson, Astin, & Freedman, 2006). Baer and colleagues proposed a five facet model of mindfulness characterized by observing, describing, nonreactivity to inner experience, nonjudging of inner experience, and acting with awareness (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). While additional models have been proposed, most of these contemporary models contain three essential elements: awareness of the present moment, attentional allocation, and the cultivation of specific qualities pertaining to the attention and awareness of the present moment.

In Western psychology, there are many different definitions and conceptualizations of mindfulness

There are three essential elements of contemporary mindfulness models

Foremost of the processes of fostering mindfulness is developing a clear awareness of one's present internal or *personal* experiences, including thoughts, emotions, sensations, and behaviors, as well as attention to perception of elements in the surrounding environment, such as sights and sounds. For this reason, some have defined mindfulness as *bare attention*, or

Awareness of experience is a fundamental aspect of mindfulness

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pure or *lucid* awareness (Dass & Goleman, 1990). These terms suggest that mindfulness reveals what is occurring before or beyond ideas, judgements, or analyses. The Zen metaphor of a polished mirror, through which the mind is able to simply reflect what passes before it, unbiased by conceptual thought about what is taking place, describes this state of pure awareness. This can be contrasted with *automatic* cognitive and behavioral reactions that occur without conscious awareness. Awareness is often at the forefront of contemporary explanations of and training in mindfulness, and is indeed a necessary and foundational element of mindfulness; however, most (if not all) individuals' awareness is shaped by conditioning, and contains both valence (positive or negative) and evaluation. Therefore, awareness may be better understood as a precondition to, or elemental factor for, mindfulness, rather than its complete definition.

A second inherent process of mindfulness is attentional allocation, which involves sustained attention, monitoring, and attentional shifting (Garland, Froeliger, & Howard, 2014; Malinowski & Lim, 2015). As an individual attempts to attend to an object (the breath, bodily sensations, sustained attention), one is also acknowledging discursive thoughts and emotions that may arise (a process of *monitoring*). The ability to notice getting "caught up" in thoughts or emotions, and subsequently returning to the object of attention, requires a purposeful and fluid shifting of attention (*attentional shifting*). As the mind wanders off into concerns about the future, ruminations about events that occurred in the past, or evaluations of the present moment, the mindfulness practitioner notices these processes and then gently redirects attention back to the sensations and experiences occurring in the present moment.

Mindfulness practice cultivates nonreactivity and nonjudgment

A third, and perhaps most important, aspect of mindfulness is the cultivation of particular qualities of awareness. Attitudes that exemplify this quality include kindness, curiosity, acceptance, nonreactivity, and equanimity. A kind, curious, and nonreactive awareness is developed so that one simply notices the object, or series of emerging objects, and the secondary evaluations and appraisals that occur. With continued practice, this nonreactive awareness eventually allows for the de-automatization of habitual reactions to the present moment and the associated secondary appraisals, predictions, analyses, critiques, or judgments about what has or is taking place. This process can be understood as the further development and temporal extension of bare attention, thereby adding clarity and depth to the typically shorter periods, or momentary flashes, of time occupied by bare attention (Keng, Smoski, & Robins, 2011; Olendzki, 2011).

Furthermore, the meditator practices meeting all internal experiences that arise – positive, negative, or neutral – with equal interest and equanimity. This is in contrast to the typical human tendency to seek and hold onto pleasure and to avoid and escape from discomfort. Instead, the mindful practitioner remains aware of what is happening internally, with an even and unbiased deportment, as if gazing upon the internal landscape without interference (Desbordes et al., 2014). It is purported that it is only when one can regard an experience, or object of attention, with a balanced objectivity that one is free from emotional agitation, and the understanding of the experience or object is potentially transformative (Olendzki, 2011). This is reflective of the elements of awareness, allocation of attention, and a nonjudgmental or equanimous

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stance toward all experience. Grossman (2015) describes this coalescing of awareness and attention with a particular set of attitudes as an act of unbiased, open-hearted, equanimous experience of perceptible events and processes as they unfold from moment to moment (sensations, perceptions, thoughts, emotions, imagery).

Mindfulness meditation differs from concentration-based meditation practices, though historically the two practices are intimately interwoven (Anālayo, 2004; Rinpoche, 2011). Concentration practices, also described as focused practices, require restricting one's attention to a single object, such as the breath, a repeated word or phrase (mantra), a sensation, or visualization. When the mind wanders during a concentration practice, attention is brought back to the object of attention with little or no investigation of the *distraction*. A concentration practice calms and stabilizes the wandering and distracted mind, and has historically been considered a perquisite for a more advanced mindfulness practice.

Concentration practices provide a foundation for training in mindfulness

Preliminary concentration practices have several advantages. First, while attempting to focus the restless and wandering mind, one may become more aware of the mind's tendency to judge simple sensation (Sayadaw, 1994). Having noticed the mind's frequent tendency to judge and evaluate, an individual can become increasingly aware of the mind as an intermediary or secondary interpreter (Dreeben, Mamberg, & Salmon, 2013). Second, the calm mental state that results from these practices provides the foreground from which one is most easily able to recognize and perceptually distinguish thoughts and feelings about sensation from direct perception of sensation. The ability to distinguish between sensation and cognition opens the opportunity to remain longer with the pure sensory experience before attention is once again overtaken by language-based judging, evaluation, and comparing. Third, a concentration practice creates the mental state in which delight and rapture are most acutely experienced (Dhargyey, 1974).

With a concentration practice that has stabilized and strengthened attentional allocation processes, participants then proceed to the practice of mindfulness: expanding the awareness from the restricted, focused attention to encompass an open, receptive, nonjudgmental awareness or observation of the constantly changing stream of internal and external stimuli as they arise and dissolve, moment by moment. This expanded, nonjudgmental, nonreactive awareness embraces all thoughts, emotions, physical sensations, memories, fantasies, perceptions, and urges with a sense of equanimity and balance. Therefore, mind wandering is simply another event to witness (Olendzki, 2011).

Mindfulness practice cultivates an awareness of one's own experiences without attachment or investment in what or how particular experiences occur. The advantage of this perspective is that the self is experienced as an arena in which the internal content of consciousness is not threatening (Hayes, Pistorello, & Levin, 2012). With practice, individuals begin to experience thoughts and emotions as temporary states, rather than as identifying characteristics, providing a sense of steadiness. In this way, mindfulness has been referred to as the ground of mental function or *choiceless awareness* (Kabat-Zinn, Lipworth, & Burney, 1985). Therefore, a concentration practice that develops the capacity to cultivate attention in a more direct and deliberate

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manner can help the mindfulness practitioner begin to discern and understand the nature of the mind. With time and practice, wisdom arises.

Curiosity and acceptance are core skills in mindfulness training

Cultivating a deliberate and focused awareness with acceptance and curiosity counteracts the tendency toward experiential avoidance, alters the relationship and interaction with internal content, and can create a sense of spaciousness around whatever is being experienced or observed; the dynamic, constantly changing experience is simply *noticed*. In this way, an individual becomes familiar with, and perhaps even friendly toward, the nature and habits of the mind. One is then empowered to respond to the present-moment experience rather than habitually, and often unconsciously, reacting. This can allow for a broader, and potentially more skillful, behavioral repertoire, freeing one from the habitual cognitive, emotional, and behavioral patterns that perpetuate suffering, providing a path toward peace and contentment.

Humans tend to respond on *automatic pilot*

Four core assumptions underlie the construct of mindfulness (Bodhi, 2011). The first assumption suggests that individuals are ordinarily unaware of their moment-to-moment experience, operating in an *automatic pilot* mode. This automatic pilot mode, also known as *mind wandering*, consists of daydreaming, contemplating the future, reliving the past, or general rumination. A recent study found mind wandering was reported to occur almost 50% of the time, regardless of what subjects were doing (Killingsworth & Gilbert, 2010).

The second assumption is that individuals are capable of developing sustained attention to mental, emotional, and physical experience and increasing the fluidity and ease of attentional shifting and cognitive flexibility. Meta-analyses have demonstrated the effectiveness of mindfulness training on enhancing attentional allocation and cognitive and psychological flexibility (Chiesa & Serretti, 2011; Slagter, Davidson, & Lutz, 2011).

A commitment to a regular, formal mindfulness practice is a critical component in mindfulness training

The third assumption suggests that a regular practice is necessary to develop this skill. While there are some Western approaches that suggest formal practice is not necessary (Langer, 1989), researchers have found that formal and informal mindfulness practices result in cognitive, affective, behavioral, and neurological changes (Hölzel et al., 2010; Hölzel, Lazar, et al., 2011; Jha, Krompinger, & Baime, 2007; Lutz, Jha, Dunne, & Saron, 2015) and have lasting effects (Rogers, Christopher, & Bilgen-Sunbay, 2013).

The fourth and final assumption suggests that moment-to-moment awareness of true experience provides a more vibrant and meaningful sense of life. Correlational studies have documented the associations among trait and state mindfulness and wellbeing, quality of life, and positive affect, and outcomes studies have demonstrated the positive impact on wellbeing and quality of life (Keng et al., 2011). Furthermore, mind wandering has been inversely correlated with levels of self-reported happiness (Killingsworth & Gilbert, 2010). These four assumptions, now largely supported by empirical evidence, have greatly influenced the integration of mindfulness and meditation into Western medicine, psychology, and education.

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1.2 Historical Roots of Mindfulness

1.2.1 Ancient and Contemporary Teachings of the Buddha

The essence of mindfulness lies at the heart of many ancient and contemporary traditions and teachings. Although these practices are indeed seen across many cultures and contexts, mindfulness is typically taught as a secular practice in modern healthcare settings. Teaching these practices in such a way may make them more available to individuals who are interested in training their minds, but who do not wish to study or ascribe to Buddhism. However, it is helpful to have at least a basic understanding of these practices in the context of Buddhism, in which they were articulated with great intellectual precision by the Buddha over 2,500 years ago in two principal discourses: the *Ānāpānasati Sutta* and the *Satipaṭṭhāna Sutta* (Anālayo, 2004).

Contemporary mindfulness practices are based on Buddhist teachings over 2500 years old

Rooted in ancient yogic practices, these teachings offered a process-oriented view of experience as a series of interdependent, cognitive events arising and dissolving each moment as the sense organs encounter incoming environmental data, with which the mind then constructs a world of meaning to interpret and respond to – cognitively, emotionally, and behaviorally (Olendzki, 2011). Over the last two millennia, the temporal and geographical dissemination of the teachings of Buddhism has produced a plethora of theories and commentaries for traversing a path for systematic mental training and human development. Consequently, mindfulness, even within Buddhism and its various schools, is subject to varied understandings and applications (Purser & Milillo, 2015).

Though mindfulness is subject to various understandings and applications, Buddhist scholars agree that the ultimate goal of mindfulness is to eliminate the causes of suffering – rooted in ignorance, attachment, and aversion – for all sentient beings. This in-depth mind development is purported to alleviate, and ultimately eliminate, suffering by fostering sustainable changes in one's cognitive and emotional states that, subsequently, lead to changes in more permanent and stable behavioral and psychological traits (Dhargyey, 1974). The conceptual framework provided to lead individuals from suffering was the *Four Noble Truths*: (a) definition of suffering, (b) the origins of suffering, (c) the cure for suffering, (d) and the path that leads to the end of suffering, known as the *Noble Eightfold Path*. The eight factors of the path to liberation can be grouped into three essential elements of Buddhist practice: (1) the development of ethical discipline, integrity, and virtues (Right Speech, Right Action, Right Livelihood); (2) mental discipline (Right Effort, Right Mindfulness, Right Concentration); and (3) wisdom (Right View, Right Thought/Intention).

In Buddhist teachings, mindfulness is part of the path that leads to the end of suffering, known as the Noble Eightfold Path

Right Mindfulness is the seventh path factor situated in-between Right Effort and Right Concentration. Mindfulness or *sati* (*smṛti* in Sanskrit) is derived from the verb *to remember* or the act of *calling to mind* (Ṭhānissaro, 2012). A wide range of meanings have been associated with *sati,* such as recollection (*anussati*), recall (*patissati*), remembrance (*saranata*), keeping in mind (*dharanata*), absence of floating (*apilapamata*), and absence of forgetfulness (*asammussanata*) (Gethin, 2011; Purser & Milillo, 2015). These early definitions reflect the philosophy that *sati* is not the equivalent of the function of memory, but instead, an active, purposeful, and particular way of attending

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and remembering. Thus, the historical understanding of mindfulness is not merely a passive and nonjudgmental attentiveness or awareness exclusively to the present moment, but an actively engaged and discerning awareness that is capable of remembering and knowing skillful, as well as unskillful, phenomena and behaviors of the past and in the present, with the intended purpose of abandoning those that lead to suffering and distress (Gethin, 2011; Purser & Milillo, 2015; Ṭhānissaro, 2012).

This watchful, nonreactive receptivity forms the foundation for *satipatthana,* usually translated as clear comprehension: a middle path which neither suppresses the content of the present moment experience, nor habitually reacts. Instead, through the development of clear comprehension, one first develops a basic knowing of what is happening in the present moment, which subsequently may lead to a discriminative ability to discern wholesome from unwholesome thoughts and behaviors within the present moment. Clear comprehension, therefore, helps inform, shape, and support the development of mindfulness by decreasing desire for and attachment to afflictions that disturb the peacefulness of the mind. Reciprocally, mindfulness increases the ability to act and respond in an informed manner, and it diminishes the likelihood of being carried away by emotions or conditioned responses.

Explicit instructions on how to develop mindfulness are found in the *Satipaṭṭhāna Sutta*, a highly revered discourse of the Buddha, in which the practice of mindfulness is divided into mindfulness and contemplation of: (1) bodily sensations, (2) neutral, pleasant, or unpleasant feelings, (3) mind and mental processes of anger, lust, and delusion, and (4) mind objects or phenomena. These four foundations are frames of reference and are usually taught sequentially until the individual becomes skilled enough to expand his/her awareness to encompass the entirety of the constantly changing present moment. While practicing mindfulness of the four foundations, one becomes aware and contemplates the arising and dissolving of phenomena in the stream of present moment experience. The practice progressively develops from a refining of attention and awareness (*Samatha)* into a deep analytical probing and insight (*Vipassana*). With effort and dedication, mindfulness states become more frequent and continuous. Steadiness of awareness and attention and a firmly established Right View assist to diminish opportunities for concepts, ideas, and associated emotions to be blindly or automatically tacked onto bare facts. Such steadiness also facilitates the recognition of being caught up in conceptual thoughts or emotions rooted in past experience or anticipated futures. Subsequently, the mindful practitioner then returns to an awareness of what is currently taking place. This cultivation of mindfulness leads to the transformation of the human mind by diminishing, and eventually eliminating, destructive mental and emotional states (Anālayo, 2004).

1.2.2 Translation of Buddhist Practices Into Western Science and Medicine

The scientific study of meditation has a relatively short history in relation to its age

Western science's interest in the use of meditative techniques began to grow among clinicians in the early 1960s. Beginning in the early 1970s, there was a surge of interest in and research on transcendental meditation (TM), a

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concentrative meditation technique popularized by Maharishi Mahesh Yogi (Wallace, 1970). The practice of TM was found to be associated with reductions in indicators of physiological arousal such as oxygen consumption, carbon dioxide elimination, and respiratory rate (Benson, Marzetta, Rosner, & Klemchuk, 1974). Studies on meditation continued to flourish as cardiologist Herbert Benson used the practice of meditation to treat heart disease and evoke the relaxation response (Benson & Klipper, 1976). In 1977, the America Psychiatric Association called for an examination of the clinical effectiveness of meditation and for a decade most of the research investigated the clinical effects of concentration practices (Germer, Siegel, & Fulton, 2013).

Application of mindfulness meditation as a Western, secularized treatment intervention largely began with the work of Jon Kabat-Zinn in the late 1980s, in which he explored the use of mindfulness meditation in treating patients with chronic pain, now popularly known as mindfulness-based stress reduction (MBSR; Kabat-Zinn et al., 1985). Multiple treatment protocols that aimed to integrate mindfulness into psychotherapy approaches soon followed with successful results. Dialectical behavior therapy (DBT; Linehan, 1993a, 1993b) was the first protocolled, evidence-based psychotherapy to formally incorporate mindfulness as a core component. The mindfulness skills in DBT are described as a behavioral translation of a Zen practice. Originally developed for borderline personality disorder and related problems, DBT has also been found to be a useful adjunct to empirically supported post-traumatic stress disorder treatments to enhance emotion regulation and tolerance for distress (Wagner & Linehan, 2007). Similarly, acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999) has mindfulness as one of its core components. ACT is a transdiagnostic approach developed out of relational frame theory. The goal of ACT is to increase psychological flexibility and empower value-driven behavior change.

The next generation of evidence-based psychotherapies shifted from mindfulness-based skills as one of several therapeutic components to formal mindfulness practice as the foundation of the treatment. Based on the content and structure of MBSR, mindfulness-based cognitive therapy (MBCT; Teasdale et al., 2002) draws upon mindfulness practices skills and cognitive-behavior therapy techniques with the goal of reducing the risk of depressive relapse. Mindfulness-based relapse prevention (MBRP; Bowen, Chawla, & Marlatt, 2011; Witkiewitz, Marlatt, & Walker, 2005) integrates mindfulness meditation practices with cognitive-behavioral strategies to support recovery from alcohol and substance use disorders.

Numerous MBIs have been developed for a wide range of conditions with many being evaluated scientifically

There is a growing body of robust evidence from randomized clinical trials (RCTs) demonstrating the effectiveness of mindfulness-based interventions (MBIs) in improving a range of physical and psychological outcomes in comparison to control conditions. There is scientific evidence to support the beneficial effects of MBIs on medical conditions, including Type 2 diabetes (Rosenzweig et al., 2007), fibromyalgia (Grossman, Tiefenthaler-Gilmer, Raysz, & Kesper, 2007), rheumatoid arthritis (Pradhan et al., 2007), and attention-deficit hyperactivity disorder (Mitchell, Zylowska, & Kollins, 2015). Clinical efficacy and durability have been shown for eating disorders (Wanden-Berghe, Sanz-Valero, & Wanden-Berghe, 2010), insomnia (Ong & Sholtes, 2010), and substance use disorders (Bowen et al., 2011). Recent meta-

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analyses estimated small- to medium-sized treatment effects for the impact of mindfulness training on symptoms of stress, anxiety, depression (Hofmann, Sawyer, Witt, & Oh, 2010), and psychosis (Khoury, Lecomte, Gaudiano, & Paquin, 2013). Additionally, MBIs have been shown to inhibit unhealthy adaptations or coping responses to chronic stress, such as smoking, decreased exercise, and poor sleep (Grossman, Niemann, Schmidt, & Walach, 2004).

1.3 Eastern and Western Variations

Western and Buddhist conceptualizations of mindfulness focus on alleviating suffering

Both Eastern and Western perspectives on mindfulness share an overarching intention to alleviate suffering, and there is significant overlap in their intentions and methodologies; cultivating mindfulness helps keep the mind grounded in the present moment, decreases reactivity and judgment to what is experienced, and changes the relationship to the internal landscape, as a means to reduce suffering and increase well-being. Relatedly, both conceptualizations acknowledge that one's experience of the world is largely dependent on perception. Eastern and Western conceptions of mindfulness are also similar in their views of the interactive relationship between the body and mind, whereas behavioral, cognitive, affective, and biological experiences can be influenced through the practice of mental training. Furthermore, both perspectives postulate that mindfulness cultivates learning and fosters the possibility of change and the adoption of new perspectives. Despite these foundational shared views, there are clear differences. The question of areas of commonality and divergence is not without controversy (Christopher, Charoensuk, Gilbert, Neary, & Pearce, 2009; Grossman, 2011; Lindahl, 2015; Purser & Milillo, 2015).

The first and perhaps most notable inconsistency between the Western and Buddhist conceptualization of mindfulness is regarding their objectives. The Western scientific community has adopted mindfulness practice as a therapeutic technique to provide individuals symptomatic relief and enhanced wellbeing and quality of life. This general aim may center on alleviation of depression, anxiety, chronic pain, chronic disease, problematic substance use, or emotional dysregulation. Alternatively, Buddhism arose as a solution to the inherent suffering in life; therefore, the ultimate goal of mindfulness is not only to alleviate specific areas of suffering, but to eliminate the *root cause* of suffering – ignorance, attachment, and aversion. According to Buddhist thought, the wisdom deficit or ignorance that arises from being attached to an inherently existing self is the underlying cause of all forms of suffering, including the entire spectrum of psychological disorders. The ultimate goal is thus the unwavering understanding of impermanence of self. This goal likely deviates from the aim of most individuals seeking MBIs within medical, psychological, or clinical settings (Shonin, Van Gordon, & Griffiths, 2013).

A second distinction between Eastern and Western views concerns the intended beneficiaries of the practices of mindfulness. Western psychological treatments, including MBIs, are historically steeped in ego strengthening, and generally aim to reduce suffering within the individual. The Buddhist perspective, however, offers a vision of radical inter-identification: a philosophy in which all living beings are identified with all other living begins. As a

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reflection of this interdependence (*pratityasamutpada),* the Buddhist practice aims to eliminate the root cause of suffering for *all sentient beings*, not just the specific individual practicing mindfulness. While many Western MBIs now focus on compassion of self and others, the compassion generally has a specific object or recipient, often called referential compassion. Alternatively, Buddhist training facilitates the development of nonreferential, or unbiased, compassion: universal compassion for all sentient beings (Halifax, 2011; Rosch, 2003).

Loving kindness, one of the Four Immeasurables, is often included in mindfulness-based interventions

A third and related aspect of the Buddhist conceptualization of mindfulness that, until recently, has been absent in Western literature includes the development of the *Four Immeasurables*: loving kindness (*metta*), compassion (*karuna*), empathic joy (mudita), and equanimity (*upekkha*). Loving kindness is defined as the wish for all sentient beings to have happiness and its causes (Salzberg, 2011). Compassion is defined as the wish for all sentient beings to be free from suffering and its causes. Empathic joy is the celebrating and finding joy in the happiness and success of others. Equanimity has been defined as an even minded mental state that cannot be swayed by biases or preferences (Bodhi, 2005; Desbordes et al., 2014). These four deeply interrelated immeasurable attitudes are often generated and then directed toward all other sentient beings. The development of the Four Immeasurables is thought to be necessary to foster the wisdom of interdependence, and in-turn, the wisdom of interdependence facilitates the development of compassion and loving kindness for others (Rosch, 2003).

A fourth, and perhaps most controversial, feature of the Buddhist conceptualization that is frequently lacking in Westerns models is the lack of explicit ethical teachings (Baer, 2003; Christopher, Woodrich, & Tiernan, 2014; Grossman, 2015; Lindahl, 2015; Van Gordon, Shonin, Griffiths, & Singh, 2014). Ethics play a large role in every Buddhist tradition and are an essential foundation of a mindfulness practice. Right Mindfulness is informed and developed in conjunction with the prior path factors of the Eight Noble Path, most of which require the exercise of mental restraint and behavioral ethical disciplines (*sīla*). Right View acts as an ethical compass for the other seven interdependent factors (Right Thought, Right Speech, Right Livelihood, Right Effort, Right Mindfulness, and Right Concentration). The term *Right* can also be interpreted as skillful, and signifies that each element of the path leads to reduced suffering for self or others. For example, Right Livelihood means earning one's living in a way that is benevolent and causes no harm to self or others. Ethical behavior in Buddhist traditions is further described in the Five Precepts: refrain from killing, stealing, lying, sexual misconduct, and misuse of intoxicants. This ethical foundation establishes a motivation and desire for liberation and freedom, provides a framework for viewing experiences in terms of the continuation of suffering, and discerns appropriate and wholesome behaviors in light of this framework of suffering (Dhargyey, 1974; Purser & Milillo, 2015).

This formula suggests that mindfulness is not merely a cataloged tool for enhancing attention. Instead, it is informed and influenced by many other factors: view of reality; the nature of thoughts, speech, and actions; methods of earning a living; and effort in avoiding unwholesome and unskillful states while developing those that are skillful and favorable to health, contentment, and wisdom. These ethical guidelines are an intractable aspect of the Buddhist

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path of personal transformation, and are understood not as commandments from a higher authority, but as pragmatic ways of facilitating one's own awakening and the well-being of others.

According to some authors, the absence of explicitly taught ethics in secular MBIs is a source of concern because it could lead to the development of wrong mindfulness, or mindfulness used for harmful purposes (Monteiro, Musten, & Compson, 2015). Codes of professional ethics, however, require respect for cultural diversity and self-determination and make it problematic for mental health and other professionals to teach ethics based on a particular religious or spiritual framework in many contemporary secular settings. Personal values and cross-cultural virtues have stronger theoretical and empirical foundations in psychological science, can be used in a variety of secular settings, and are appropriate for a wide range of clients, regardless of their religious or spiritual orientations (Baer, 2015).

Operational definitions of mindfulness differ among Western and Buddhist conceptualizations

A final discrepancy between Buddhist and Western conceptualizations concerns the ability to assess or measure mindfulness. While Western science suggests that the construct of mindfulness must be operationally defined and operationalized to be accurately assessed and quantified, most Eastern traditions dictate that mindfulness cannot be easily extracted and analyzed from interrelated constructs (Christopher et al., 2009; Grossman, 2011). Furthermore, Buddhist texts primarily refer to mindfulness not as a mental function or trait but as a practice or process (Anālayo, 2004; Bodhi, 2011). Recently, a group of Zen Buddhist clergy and practitioners were asked to assess the validity of measures of Western mindfulness, and several concerns emerged. Participants noted that levels and duration of practice could influence the interpretation of the items, leading individuals who may be more mindful to rate themselves with less mindfulness. Another concern was that the measures were lacking in their ability to assess the nonlinear and evolutionary aspect of the practice. A final concern was that the measures appeared to be assessing noncritical aspects of mindfulness, while lacking essential elements of a mindful practice, such as one's awareness of aversion and suffering and the intention to return awareness to the present moment (Christopher, Woodrich, & Tiernan, 2014).

Western and Eastern perspectives on mindfulness overlap, yet there are several clear differences between them

The contribution of the Buddhist tradition has been an exceptional influence to Western science and this cultural phenomenon is likely still in its infancy. Current Western MBIs and Buddhist teachings share the overarching intention to alleviate suffering, as well as the understanding that behavioral, cognitive, affective, and biological experiences can be influenced through the practice of mental training. Despite these foundational shared views, there are clear differences. Understanding the origins of mindfulness, the historical context of Buddhism from which mindfulness arose, the shared commonalities, and the important differences between these conceptualizations, may be helpful and important for effective intervention implementation and future theoretical development.

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2

Theories and Models

2.1 The “Mindfulness-Based” Movement

2.1.1 Mindfulness-Based Stress Reduction (MBSR)

Application of mindfulness meditation as a Western, secularized intervention approach began largely with the work of Jon Kabat-Zinn in the late 1980s. Kabat-Zinn explored the use of mindfulness meditation in treating patients with chronic pain, a program now known as mindfulness-based stress reduction (MBSR; Kabat-Zinn et al., 1985). MBSR is theoretically grounded in secularized Buddhist meditation practices, mind-body medicine, and the transactional model of stress, which suggests that people can be taught to manage stress by adjusting their cognitive perspective and increasing their coping skills. The primary aims of MBSR are to enhance attentional control and receptive awareness by focusing on internal (bodily sensations, breath, thoughts, emotions) and external (sights, sounds) stimuli in the present moment. With this enhanced attentional allocation and awareness, it is postulated that one may skillfully, rather than habitually or reactively, respond to the present moment experience. This process allows for a larger, and potentially more skillful, behavioral repertoire in the presence of stress and adversity.

MBSR has provided a foundation for the development of numerous other secular mindfulness-based interventions

A typical MBSR course is delivered in a group format and consists of eight weekly 2.5-hour sessions and an all-day (6-hour) retreat session. In addition, regular home meditation practice, for about 45 minutes daily, is expected. MBSR groups are frequently transdiagnostic in nature, emphasizing that all participants, regardless of disorder, experience an ongoing stream of constantly changing internal states and have the ability to cultivate moment-to-moment awareness.

MBSR sessions are largely experiential with considerable time dedicated to mindfulness practice. The *raisin exercise* is the first experimental activity. Participants are invited to see, feel, smell, and taste an individual raisin with an elevated sense of curiosity and interest. This primary exercise is intended to experientially discern mindful awareness from *automatic pilot*, the tendency to act with limited awareness of one’s thoughts, emotions, or behaviors. The discussion following this practice typically centers on the direct sensory experiences of the raisin, the mind’s tendencies to wander or judge, and the nature of automatic pilot. The MBSR facilitator discusses with participants how automatic pilot can be advantageous at times; however, these unconscious thoughts, feelings, and physical sensations can also trigger habits of thinking and behaving that are harmful and can lead to greater stress and worsening mood. Cultivating mindfulness while engaging in seemingly mundane daily

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activities, such as eating or washing dishes, is encouraged throughout the eight weeks to enhance awareness and promote the understanding of the interrelationships between habitual thought, emotion, and behavior. Participants are also asked to notice pleasant and unpleasant events and the associated thoughts, emotions, and sensations. This practice cultivates increased awareness and appreciation of pleasant events when they occur, and recognition of the associated sensations and emotions. This may also help participants explore the tendency to catalog experiences as pleasant or unpleasant, and to attempt to cling to pleasant experiences and avoid or get rid of unpleasant ones.

Throughout the course, an assortment of mindfulness practices are introduced, including the body scan, mindful breathing, mindful movement, and walking meditation. During the body scan, also introduced in the first session, attention is directed sequentially throughout the body in order to cultivate a nonjudgmental awareness of physical sensations, cognitions, and emotions. This is based on the understanding of the body as the first foundation, or first object, of mindfulness, as taught in the *Satipaṭṭhāna* and *Mahāsatipaṭṭhāna Suttas*. Participants cultivate the ability to *sense* or *perceive* the bodily sensations, without referring to the narratives and judgments about the body. By tuning into the body on its own terms, the direct experience of the body breathing, its movements, postures, anatomical parts, the elements of which it is composed, as well as its impermanence, participants gain practice in referring to experience itself, rather than the secondary appraisal of experience (Anālayo, 2004). Therefore, during the body scan, sensations in each area are carefully observed; participants are encouraged to simply perceive rather than think about or evaluate sensation. As the mind becomes distracted, attention is gently returned to the sensations arising and passing in the current moment. In the practice of mindfulness of breath, attention is similarly directed to physical sensations in the body. In this practice, however, the chosen target of attention is the sensations that arise in the body as breathing occurs. The intention differs from *breathing exercises* or deep breathing in that participants are instructed not to attempt to change or control breathing, but to allow the body to breathe naturally, and to bring attention to the associated sensations. When the mind wanders from the breath, the participant notices this shift, and perhaps the content of the distraction, and focus is gently returned to the sensations of breathing. Mindful movement cultivates an individual's awareness of the bodily sensations while slowly and gently moving, stretching, or holding a position. Similarly, during walking meditation, attention is deliberately focused on the sensations in the body while walking, including the shifting of weight and balance and sensations in one's legs and feet. Finally, open-focused practice invites the individual to expand his or her attention to include sounds in the environment, sounds and sensations of breathing, bodily sensations, and the stream of constantly changing thoughts and emotions with a curious, nonreactive, and nonjudgmental stance. All these practices aim to develop concentration, attentional flexibility, and interoceptive awareness. Furthermore, during these practices, one begins to notice the transitory nature of experience, as well as the frequency and automaticity of judgmental and narrative thinking.

During each session, the teacher facilitates discussions that explore participants' experiences with in-session and home practices. Rather than providing

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