

# Mindfulness: history, technologies, research, applications

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During meditation . . . we are aware of [thoughts] because they are there but we intentionally decline getting caught up in the content of the thoughts during meditation, no matter how charged the content may be for us at that moment. Instead we remind ourselves to perceive them . . . as seemingly independently occurring events in the field of our awareness.

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JON KABAT-ZINN, *Full Catastrophe Living*

## Just What Is 'Mindfulness'?

The English word 'mindfulness' names a *technique* for profoundly changing our relationship to our thoughts and feelings and the *perspective* one gains from practicing that technique. It names a *temporary state* that is potentially accessible to any human being and a set of *permanent traits* that may grow in a person who practices mindfulness.

Mindfulness in action is the endeavor to *observe* what occurs, with especial focus on the contents of inner experience, *without evaluating, judging, or participating*. The majority of our mental and emotional lives is spent experiencing cognition and emotion as inalienable parts of our selves: We see ourselves as *angry people* who *can't help* losing our tempers; we *are* depressed, or we *are* anxious, or we have *continous and inescapable* feelings of paranoia, or grief.

Mindfulness practice allows any one who enters into it to discover the sheer untruth of these ideas. Rather than *being* depressed, we can see that we *experience* depression; rather than *continuous and inescapable* grief, we can objectively note the moments in which we are in fact free of grief or pain; and so forth with any thought or cognition, not only the more clinically significant ones. In mindfulness practice, this insight can be immediately, directly experienced, in contrast to more traditional rational-emotive and cognitive therapies, which attempt to transmit it from the therapist to the client . It is therefore beginning to be seen as a valuable adjunct to these therapies, becoming increasingly popular as a tool in the therapist's toolbox.

This paper attempts to be a brief *résumé* of the history and practice of mindfulness, especially with respect to its use in clinical psychology. Beginning with a brief introduction to the basics of mindfulness practice, in which the reader is invited to participate, we will then spend a few moments looking over the history of this fascinating experience as it has been developed and applied around the world and across millennia. Having arrived at the present moment, we will explore several current applications of mindfulness technologies in therapy, with reference to empirical research on their benefits.

## Basics of Mindfulness Practice

The most basic form of mindfulness practice is *observing the breath*. One simply sits and breathes naturally, maintaining attention on the experience of breathing. Anyone who tries this will almost immediately realize that it is extraordinarily difficult to do, because the mind wanders, calling attention's focus to almost anything *other* than the breath. This tension—that between intent and distraction—is the problem that mindfulness practice seeks to solve by honing the ability to attend and choose.

Perform the following experiment: Sit for three minutes, doing nothing but breathing, focusing your attention on what it feels like to breathe. Among the other thoughts and sensations that arise, you will almost certainly start to feel bored—that you are wasting your time, that nothing important is going on here. When you feel bored, stop breathing. Pinch your nose shut; close your mouth. Very shortly you will become intensely interested in breathing—I can practically guarantee it! (Kabat-Zinn, 1990, p. 22–23)

You have just experienced two things: (1) the difficulty of not doing; (2) the fact that your attention, which you may have thought of as under your control, is not, and that likewise your mind, which you may have thought of as yours, is quite capable of lying to you.

Another experiment: Sit again for three minutes, doing nothing but breathing. This time, when a thought, emotion or sensation arises—when you think “What am I having for dinner tonight?”, or when you experience boredom, or when your back starts to hurt—*do nothing*. Above all, do not follow your mind—that is, do not go on to mentally construct your menu, do not get up and walk away, do not go look for a bottle of aspirin. Simply *observe* the experience, *acknowledge* that it is occurring, and then set it aside and *return* your attention to the breath. This triad—*observe, acknowledge, return*—is the heart of mindfulness practice.

Let us take a moment to unpack that idea:

- To **observe** means **not to participate**. Rather than entering into thoughts, emotions and sensations, we simply watch them arise—and let them pass away without being drawn into them. The practice of **not participating** empowers us to see that the products of the mind are not permanent, inalienable parts of ourselves, but are simply transitory occurrences that come and go.

- To **acknowledge** means **not to judge**. Rather than making judgements about the thoughts, emotions and sensations that arise in our experience, we simply acknowledge the bare fact that they have arisen. The practice of **not judging**—that is, not creating even more thoughts, feelings and wishes about what has arisen—strengthens our ability to **observe** and **accept** what happens.

- To **return** means **to exercise choice**. Rather than following the mind where it wants to go, we simply go back to doing what we originally intended to do—paying attention to what is happening here, now, in the present moment, in the immediate field of awareness. The practice of **exercising choice**—that is, acting consciously, not being driven blindly by the impulses of the mind—restores our ability to choose when and how to act.

Mindfulness practice is nothing other than the willingness to observe, acknowledge and return, over and over again, refusing to be led by the mind into the past or the future, always coming back to the immediacy of what is actually being experienced, slowly learning to be wholly and without reservation in the present moment, whatever it contains, without being forced to flee from it by the impulses of the mind. The emphasis here is on *slowly learning*. Mindfulness practice takes time to develop; time, effort, attention, dedication. There are no shortcuts and nothing else will do.

Along these lines, a warning: If, after reading this paper, you are sufficiently intrigued to want to begin using mindfulness techniques with your clients, you should know that you will not be effective at it unless you have a consistent, ongoing mindfulness practice of your own. Perhaps the best illustration of this is the story of a team of experienced clinical researchers investigating mindfulness technologies, who found that they had to stop their research, go back and develop mindfulness practices of their own, before they could really understand what it was they were doing (Segal, Williams, & Teasdale, 2002).

Having briefly tasted the experience of mindfulness, let us take a moment to explore the history and development of what might be called the ultimate empirical science.

## History of Mindfulness Practice

Mindfulness technologies have been applied in human endeavors for thousands of years. They have been found of great value by Hindus, Buddhists, Muslims, Christians; in India, Asia, Europe and America; in the far past, in the Middle Ages and in modern times. The depth and breadth of human experience with mindfulness technologies in itself argues very powerfully for their intrinsic worth in solving problems in inner experience, which is arguably the *métier* of clinical psychology.

### *Hindu mindfulness: 1500 BCE*

Hinduism was the birthplace of virtually all Asian contemplative traditions. The Sanskrit word *yoga* ‘discipline’ applies to a wide range of contemplative practices designed to unite the individual soul (*atman*) with *brahman*, which is variously translated ‘God’, ‘Godhead’, or ‘the ground of existence’. Smith (1994) identifies four major schools of *yoga*:

- *jñāna yoga* ‘knowing discipline’: a contemplative/reflective approach toward an impersonal *brahman*;
- *bhakti yoga* ‘devotion discipline’: an approach of cultivating love and devotion toward a personal *brahman*, including some types of *mantra* meditation (the constant repetition of a word or name, with the aim of fully internalizing its meaning);
  - *kāarma yoga* ‘labor discipline’: an approach involving work performed with devotion;
  - *rāja yoga* ‘royal discipline’: the psychophysical science including the moving meditations we know in the West by the word ‘yoga’.

### *Daoist mindfulness: 6th c. BCE*

From its beginnings Daoism has concerned itself with creating a harmonious relationship between humans and the world through direct contemplation of the ‘ground of existence’—that which remains after all objects are extinguished. (See Appendix A for an exercise in this vein.) The ‘ground of existence’, the system of the world, and the method of achieving harmony are all terms by which the Chinese term *Dào* can be translated (Smith, 1994). Daoism’s best-known contributions to mindfulness practice are *qì gōng* ‘energy work’ exercises and the martial art *tài jí quán*

‘Daoist fist’. Both are moving meditation systems; both seem to be modified Hindu *rāja yoga*.

*Buddhist mindfulness: 535 BCE*

Buddhist mindfulness techniques center on seated meditation and mindfulness of the breath. One of the oldest Buddhist meditation practices is *vipassanā* ‘discernment’ meditation, which is a graded, deeply intellectual system of attempting to directly perceive the truths of the body, feelings, consciousness and ‘the objects of the mind’ (Silānanda & Heinze, 1990). Probably the most familiar Buddhist meditation system to Americans is Japanese Zen, which uses sitting and walking meditation as a tool to achieve *satori*, a radical, sudden insight into the nature of reality and conscious experience (Watts, 1989).

*Christian mindfulness: 530 CE*

The Christian contemplative tradition flowered in the Middle Ages with the introduction in about 530 CE of communal (cœnobitic) monasteries (Alston, 1907/2003). Among the great Christian mystics are St. John of the Cross, who coined the term “dark night of the soul”; St. Teresa de Ávila, who described a seven-stage visionary journey to the throne of God (Underhill, 1930/2002); and St. Hildegard of Bingen, who wrote chants and songs out of her inner experiences (Flanagan, 1990). For several centuries after the rise of Protestantism, the mystical tradition and its insistence on a direct, immanent experience of God fell out of favor, though it was kept alive by relatively minor traditions such as Quakerism until the rise of Pentecostal Christianity in the 19th century. Mainstream Christian churches are now rediscovering the medieval mystics in an attempt to compete with Pentecostalism in feeding their parishioners’ need for immanent religion.

*Muslim mindfulness: 9th c. CE*

Like Christianity and Judaism, Islām developed its mindfulness tradition well after its foundation about 610 CE . It was not until the 9th century CE that the mystical tradition *taṣawwuf* ‘Sufism’ developed out of a reaction to a growing legalism in Islām (Armstrong, 2002). The heart of Sufism is a search for a direct confrontation with the Divine, often visualized as Love or as an all-consuming fire (Fadiman & Frager, 1997). Sufism is a large family of *tariqāt* ‘teaching lineages’

employing a fantastic variety of techniques, but the most familiar of these will be that practiced by the Persian Mevleviye order—the moving meditation of the ‘whirling dervishes,’ in which the practitioner whirls for hours, even days, steadily counterclockwise on the left foot, with the right arm high, palm skyward, and the left arm down, palm earthward. This distinctive practice is a visualization of the movement of the world, with God in the still center, energy coming down from heaven and into the earth through the body of the whirler (Various, 2004b).

*Jewish mindfulness: 10th c. CE*

Similarly, the Middle Ages saw the birth of Jewish contemplative practices, the most famous of which is *qabbala* ‘received [tradition],’ a practice that centers on a very close reading of Jewish scripture with reference to a system of numerological relations (Various, 2004a). The student of *qabbala* enters into a deep contemplation of the relationships between verses, words, letters and their numerological equivalents, creating a powerful web of associational meaning among them all that points to a mystical, immanent understanding of the Divine. Like the Christian mystical tradition, *qabbala* has enjoyed a renewed popularity in America in recent years.

## Mindfulness Technologies in Therapy

In modern psychotherapeutic research and practice, mindfulness technologies have been employed in the treatment of (to name a few): intractable physical pain; borderline personality disorder; and recurrent major depression.

We will review three of the best-known therapeutic mindfulness programs before turning to a brief review of the research literature supporting them.

*Jon Kabat-Zinn: Mindfulness-Based Stress Reduction*

MBSR is the brainchild of Jon Kabat-Zinn, whose work at the Stress Reduction Clinic at UMass Medical School has centered on the application of mindfulness techniques to patients suffering from intractable pain, patients who are beyond the reach of conventional medicine. For over two decades, the MBSR program has taught an eight-week program combining sitting and walking meditation, guided body awareness, and light yoga, which results in a noticeable improvement

in quality of life for about three-fourths of the people who engage in it. Kabat-Zinn's book *Full Catastrophe Living* (Kabat-Zinn, 1990) is probably the best practical meditation textbook available today. His colleague, Saki Santorelli, has written *Heal thy Self* (Santorelli, 1999), a sort of poetics of mindfulness therapy which reaches further into the transpersonal and spiritual dimensions of the work.

MBSR's most innovative technique is the *body scan*, which teaches patients to "reestablish contact with the body" though a "thorough and minute focus on the body" in a guided meditation in which patients lie supine and are verbally taken on a tour of the body, focusing awareness sequentially on individual parts of the body. Patients become aware of where pain and stress are carried, where pain is centered—and where it doesn't exist at all—as well as gaining a sense of how the body changes over time between scans (Kabat-Zinn, 1990, pp. 77–91).

*Marsha Linehan: Dialectical Behavior Therapy*

DBT grafts mindfulness skills training onto a much larger therapeutic framework designed for actively suicidal and self-harming borderline patients—possibly the most miserable and misery-making population therapists work with. DBT is defined by its aggressive triaging approach to primary therapy goals:

1. Reduce suicidal and self-harming behaviors;
2. Reduce behaviors that interfere with therapy (on the part of the patient *and the therapist*);
3. Reduce behaviors that decrease quality of life;
4. Teach behavioral skills: *core mindfulness, interpersonal effectiveness, emotion regulation, distress tolerance, self-management* (after Linehan (1993), p. 167)

Once the major barriers to therapy (suicidality/self-harm, interference behaviors, quality-of-life behaviors) are removed or drastically reduced, DBT teaches a very stripped-down set of *core mindfulness skills* in order to make patients more aware of how their thoughts and emotions drive their self- and relationship-destructive actions. Specific skillsets in interpersonal effectiveness, emotion regulation, distress tolerance and self-management (which Linehan theorizes are the skills centrally lacking in borderline patients) are then taught, mostly in a group setting. All DBT treatment is grounded in the theory that therapists must be able to maintain *dialectical thinking*, or

the ability to mindfully tolerate paradox and conflict, dealing with it in a flexible and self-aware manner, and be able to teach the patient to be dialectically aware as well.(Linehan, 1993).

*Segal, Williams and Teasdale: Mindfulness-Based Cognitive Therapy*

MBCT arose out of its authors' desire to create a new cognitive-therapy approach to preventing relapses in depressive patients. Having become aware of both Kabat-Zinn's MBSR and Linehan's DBT as effective stress- and distress-reducing therapies, they hypothesized that mindfulness work teaches its practitioners *metacognition*, or an ongoing awareness of the thought process. Seeing metacognition as a potentially very valuable skill in preventing depressive relapses, they at first attempted to distill Kabat-Zinn's MBSR approach into a shorter, manualized treatment program. Eventually, Segal, Williams and Teasdale realized that (as the Stress Reduction Clinic staff had tried to warn them) it is not possible to effectively teach mindfulness without having a strong and ongoing mindfulness practice of one's own. The story of this learning process in the development of MBCT is told in Segal et al. (2002).

MBCT's major contribution is a very careful exploration of the mechanisms involved in depressogenic rumination. The authors theorize that rumination is a process that begins when self-perpetuating patterns of negative thinking are activated in response to a negatively-experienced event; however, mindfulness training creates in patients a level of metacognitive awareness that increases awareness of being in "doing mode", an unmindful sort of "autopilot" state, and allows patients to mindfully move into "being mode", to "step outside" of their cognition and observe it for what it is—a self-perpetuating negative thought pattern—rather than for what it is not—an accurate reflection of external reality (Segal et al., 2002, pp. 68–78).

The MBCT program includes a very easily-taught and very valuable technique called the "three-minute breathing space"—a very quick and distilled taste of mindfulness (Segal et al., 2002, pp. 184 and 241) which can allow enough space after an activating event for the patient to mindfully *respond* rather than unmindfully, habitually *react*.

## Empirical Research on Mindfulness in Therapy

MBSR, DBT and MBCT all draw upon a large body of research detailing the intimate connections between mind and body, or, more specifically, between *cognition* and *physical health*. *Full Catastrophe Living* dedicates an entire section to a wide-ranging and very accessible overview of research in this vein (Kabat-Zinn, 1990, pp.149–231).

MBSR itself was the subject of a treatment-effects study that, among 98 chronic-pain patients treated, found a “58% reduction in pain intensity, 30% reduction in functional impairment, 55% reduction in mood disturbance, and a 35% reduction in overall psychiatric symptomatology pre- to post intervention” (Kabat-Zinn, 1982). A four-year follow-up study of 225 chronic-pain former MBSR patients found that improvements in these areas were maintained from 2.5 to 48 months post-program, although pain intensity levels had returned to pre-MBSR levels (Kabat-Zinn, Lipworth, Burney, & Sellers, 1986).

DBT has been subjected to a randomized controlled trial with 6-month and 1-year follow-ups involving 39 female parasuicidal borderline patients. At the six-month mark, DBT patients had “significantly less parasuicidal behavior, less anger, and better self-reported social adjustment” and at the 12-month mark, they had “significantly fewer psychiatric inpatient days and better interviewer-rated social adjustment.” (Linehan, Heard, & Armstrong, 1993). Linehan has also co-authored a wide-ranging review of a variety of studies on DBT (Koerner & Linehan, 2000).

MBCT was subjected to a rigorous randomized controlled trial (J. Teasdale et al. (2000), cited in Segal et al. (2002)) involving 145 patients with a history of two or more episodes of major depression, who had been off medication for at least three months prior to the study. Interestingly, MBCT did *not* significantly improve relapse rates for patients with a history of only two episodes of major depression. For patients with *three or more* episodes, however, MBCT reduced relapse rates over 60 weeks from 66% to 37%. These results spurred Segal et al. to hypothesize that patients with  $\geq 3$  depressive episodes might comprise a separate patient population from patients with  $\leq 2$  episodes. These notions, as well as further implications of the MBCT theory of metacognition, were explored in successive work, including J. D. Teasdale et al. (2002) and Ma and Teasdale (2004).

## Concluding Thoughts

The ongoing research and practice linking modern psychotherapy to the rich and fruitful historical science of mindfulness makes this a fascinating time to be entering the field. Far from being “turned off” to mindfulness technologies by their premodern origins, a growing number of mental-health researchers are analyzing and applying mindfulness from modern (and postmodern) viewpoints, and finding it to be of lasting clinical value.

Along these lines, a note: Modern monological empiricism—using extensions of the human senses to observe the external surfaces of objects with simple physical location, size and duration—is not the best way to perform research into the heart of mindfulness. It can provide only a partial view of what occurs in mindfulness. A recent *Wall Street Journal* article (Begley, 2004, November 5) is an excellent illustration of this, reporting on scientists marveling over the electroencephalograms of Buddhist monks (Lutz, Greischar, Rawlings, Ricard, & Davidson, 2004): able to observe physical changes in the brain brought on by mindfulness training, but utterly unable to access the internal *meaning* of those externally observable changes.

Since mindfulness is a state experienced internally by the individual, it cannot be *seen* or *examined*, but must be approached with *personal experience*, *interpretive dialogue*, and *qualified confirmation* of that experience by people who have themselves experienced it. This is an altogether different type of empiricism from the one we are used to working with, but it is what will be required in order to fully explore mindfulness and related phenomena. See Wilber (1999) for a succinct discussion of “empirical pluralism”.

I look forward to continued research and applications of mindfulness technologies, and to incorporating the best of them in my own future therapeutic practice.

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