

Meditation and Techno-Mindfulness

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Mindful meditation has discernible effects on enhancing the mind's focus, proving to “impact various components of attention, although the precise effects may depend on the meditation style practiced and the level of experience of the practitioner”. This success has precipitated the swift adoption of mindfulness as a therapeutic instrument. During its process of medicalization, which has turned meditation into a clinical product suitable for the therapeutic forms of Western biomedicine, mindfulness is also undergoing a further transformation, one that progressively integrates it into the techno-medical and digitalizing aspect of modern therapies.

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I 1. Brief “Medical” History of Meditation

Medicine has consistently remained a crucial component of Buddhism from its inception through its subsequent evolution and is indeed sculpted into the form of meditative practice by Buddhists. This practice is intrinsically tied to notions of purity, freedom from mental afflictions and psychophysical integrity, aligning harmoniously with the Buddhist conceptualization of medicine. The ancient Buddhists themselves are frequently depicted as figures associated with medicine or as individuals trained in the practice of medicine ([Divino 2023b](#)).

Meditation serves a dual purpose; achieving purity or optimal health is not the primary objective, but rather the outcome of liberation. The prerequisite state to this liberation is inextricably linked to existential discomfort, also known as *dukkha*, and its psychophysical manifestations identifiable as illness (*roga*).

Western fascination has led to the supposition that meditation, akin to phenomena such as yoga, could be transposed and assimilated into Western culture, examined through the lens of technoscientific disciplines. Consequently, meditation undergoes a process aptly described as transculturation, where it is recalibrated to meet the demands of Western cultural constructs, primarily cognitive-behavioral psychology ([Herbert and Forman 2011](#); [Singh et al. 2008](#)). This adaptation, however, truncates a significant aspect of meditation, transforming it into an exercise of control and focused attention exclusively.

The mindfulness technique purports to draw inspiration from Indian meditation traditions, with a particular emphasis on Buddhist practices. The construction of a distinct identity often involves the utilization of foundational myths and this practice is no exception. It is not the intention here to refute that mindfulness is profoundly influenced by Buddhist practices. The architect of mindfulness himself, Jon Kabat-Zinn, unequivocally references Buddhist practice.

However, this introduces a complex discussion about the authenticity, interpretation and adaptation of such practices within different cultural and philosophical contexts. The process of transculturation plays a significant role in shaping these practices, their reception and their impact on different societies, especially when the medical dimension is implied since it recalls a complex process of legitimation, authority and credibility in the scientific discourse.

Numerous attempts have been made to trace a global history of mindfulness, aiming to contextualize the clinical technique developed by Kabat-Zinn within a continuum with the contemplative tradition of Buddhism ([Sujato 2012](#)). Undoubtedly, these attempts hold significant merit, and one cannot assert a clear historical rupture between Buddhist meditation and clinical mindfulness. However, for historical accuracy, one must consider how conceptions of meditation have evolved from the historical and cultural context of ancient Buddhism to the clinical mindfulness of Western biomedicine. Over two millennia separate these two disciplines, and while it is evident that mindfulness now possesses a clinical aspect due to its integration into a cultural framework where this facet of medicine exists, one might raise doubts regarding the clinical nature contemplative practice *tout court*. Although undeniably a part of a context that sought healing in some form of “therapy” and aimed to establish a genuine “medicine” within its tradition, we cannot equate the idea of

self-care accompanying the meditation described in Buddhist texts with the nature of the clinical-therapeutic idea that mindfulness embodies today.

If we consider meditation within the historical-religious context of Buddhism, it would not be far-fetched to assert its assimilation into a medical practice. Buddhists have consistently demonstrated a keen interest in medicine (*bhesajja*), evident particularly in the earliest references within the *Pāli Canon*, which represent the oldest instances of Indian medical literature (Zysk 1991, 1993, 1995, 1982). These texts contain terminologies later found exclusively in *āyurvedic* literature, such as references to the three basic bodily humors and the issues associated with their interaction (Divino 2023a). This traditional form of Indian medicine will be also explicitly endorsed by Buddhists (Subbarayappa 2001, p. 139).

In general, the notion of establishing a medical practice was implicitly ingrained in Buddhist doctrine (Salguero 2018, 2022), which fundamentally centered on liberation from suffering (*dukkha*), encompassing not only psychological distress but also physical ailments (*roga*). Ancient Buddhist texts also display a remarkably detailed attention to anatomy and physiology, indicating their significant medical expertise even in antiquity.

A particular emphasis is directed towards what we now define as “mental” health, although during the time of the Buddha, this concept did not conform to a mind–body duality but rather denoted a form of existential distress and suffering experienced and embodied physically. Its origins were rooted in dynamics that today researchers would identify as socio-cultural. In this text, researchers' focus naturally gravitates more towards contemplative practices rather than medical traditions aimed at addressing bodily dysfunctions (*kāyika roga*).

When meditation is described in the earliest texts it is sometimes connected to the elements and thus to the primeval humoral theory.

The meditator should maintain mental presence throughout every aspect of the breathing process, cultivating awareness of their presence in the moment and immersing themselves in a state of unification (*samādhi*) until they apprehend the true nature of impermanence. This meditation technique is considered to be healthful and advantageous (*mahapphalā, mahānisaṃsā*).

(Divino 2023a, p. 44)

The Buddhist contemplative practice outlined in these texts is thus a technique aimed at enhancing the practitioner's awareness, consequently reducing factors contributing to psychophysical suffering. It tends to be considered a bona fide therapy, with the Buddha often likened to a physician or even the greatest of physicians (Granoff 2011). The benefits of this practice have been acknowledged from the outset, drawing interest from the West on clinical grounds (Troy et al. 2013). Meditation has demonstrated clear psychological benefits, particularly in stress reduction, and has facilitated the development of mindfulness-based interventions (MBIs). The mindfulness method developed by Jon Kabat-Zinn was grounded in the concept of evidence-based medicine to lend a perception of scientific rigor to meditation. This approach isolates it from its historical-cultural context and its associated Buddhist spirituality, asserting that a methodology exclusively focused on biomedical observable benefits, reinforced by a stringent protocol emphasizing only those aspects, was the winning key to formulating a fruitful therapy.

Our contention is that these adaptations do not necessarily signify a drive toward scientific rigor but rather a cultural reworking to render this clinical device more acceptable within the confines of allopathic biomedicine's demands.

2. From Meditation to (Clinical) Mindfulness

We arrive at the contemporary era, wherein mindfulness, a concept transculturated into the historical-social milieu of the Euro-Atlantic world, functions presently as a therapeutic tool targeting mental health. Endeavors are relentlessly undertaken to legitimize this role, primarily through the formulation of theoretical frameworks that integrate it into pre-existing biomedical structures. This is evident in the plethora of investigations on meditation that are centered around neurobiological phenomena and related mechanisms (Raffone et al. 2019).

There is also a cultural problem. The ancient Buddhist physician was an itinerant ascetic, who rejected social norms and practiced his asceticism in a specific external space, outside the organized space of society (Divino 2023b). On the other hand,

Rather than cultivating a desire to abandon the world, Buddhism is seen as a science of happiness—a way of easing the pain of existence. [...] Mindfulness is promoted as a cure-all for anxiety and affective disorders including post-traumatic

stress, for alcoholism and drug dependency, for attention-deficit disorder, for anti-social and criminal behavior, and for the commonplace debilitating stress of modern urban life.

(Sharf 2014, p. 472)

Sharf accurately identifies that the early Buddhist institution was fundamentally a renunciate community, literally embodying a critique of prevailing societal values and cultural norms (ibid., p. 478). Based on his personal encounters with Buddhist meditation in a monastic environment, Sharf expresses skepticism regarding the congruence of traditional mindfulness with its contemporary clinical representation. It is crucial, from an anthropological perspective, to note that mindfulness was adopted as a strongly Euro-American-centric clinical methodology. It assumed Western models of health and disease, along with corresponding healing expectations for conditions deemed pathological. In examining traditional meditation practices, Sharf questions whether they even aspire to conform to our established model of mental health.

Paramount among these considerations is also the profound state of meditative absorption, which appears to be fundamentally irreconcilable with the mindfulness doctrine of presentism (Sheldon et al. 2015) although we do not always realize that flow absorption is actually an important element for traditional meditation as well as in exercises that require a certain type of skill and concentration.

Meditation likely did not fall within the biopower tools envisioned by Foucault when he wrote about surveillance and discipline. Yet, upon closer examination, we can discern in mindfulness the signs of a self-surveillance apparatus, perfectly adapted to the needs of neoliberal society, perhaps even beyond Foucault's bleakest expectations. This is to the extent that the foreseeable subsequent steps in the development of mindfulness anticipate its integration with technological dispositives, which, having already arisen from the necessity of social surveillance, intersect with mindfulness to enhance and refine its aspects geared towards controlling dispositions.

In this phase, meditation is progressively "digested" by Western culture to be rendered more akin to a product. It is thus made appealing and "thinkable" in Western terms, resorting to the reinforcement of stereotypes and commonplaces concerning the allure of the exotic and its association with universal medicine. The process goes from enculturation to transculturation: meditation is transformed into a Western cultural product that could be entirely independent of its Asian counterpart. Even in the preliminary stages of therapeutic mindfulness, when meditation was considered in clinical terms, it had to necessarily be rendered analogous to psychotherapies for two fundamental reasons: firstly, to absorb the authority conferred only to "official" clinical practices, substantiated by scientific episteme, and secondly, to definitively appropriate meditation as a marketable product subject to therapeutic logics.

Consumption of a product "is a process of self-construction through differentiation, and marketing often capitalizes on the recognition that consumers who buy to satisfy their desires often do so with a concern for identity—but also with a need to authenticate their identity in very particular ways" (Guth 2012, p. 21). We cannot ignore that Orientalism, as described in Said's influential work, continues to function effectively as a label or a true brand that imported goods, such as yoga and mindfulness, can now proudly bear. Initially, the "East/Orient" served a different purpose, primarily concerned with defining the identity of the Western and Euro-Atlantic world through well-known anthropological mechanisms of opposition. The East was meant to represent an exotic otherness that contrasted with the familiar and reassuring world of Christianity and the West, which defined itself in part by opposing a hypothetical "other" (Said 1972, p. 58). Obviously, a certain idea of "oriental medicine" is not exempted from this process (Ikemi and Nagata 1986).

Within the clinical framework, mindfulness fully adheres to the logics of medicalization and the use of therapies as instruments of patient control. The identification of mindfulness with psychotherapies enables this transition that, without the filter of the authority of professional medical dimensions, could not have been imparted to simple meditation. In a transformation mechanism akin to that occurred to yoga, biopolitics appropriates meditation, transforms its intentions, turns it into a cultural consumption product and then into a clinical means of biopower.

Naturally, these forces do not act autonomously and independently but are part of processes made possible by the will of the masses and cultural subjects who have "demanded" the consumption of meditation as a product, thereby allowing the cultural milieu around the clinical world to conceive of mindfulness in current biopolitical terms. This is a synthesis of the major criticisms that can be levied against mindfulness. However, I also intend to address future prospects, hypothesizing new phases of evolution that await mindfulness, now perfectly integrated into the framework of biopolitical control.

These phases envision the combined union of another tool known to the medical world and surveillance studies (Zuboff 2019): technology. To better understand why this union is foreseeable and what we can expect from it, speaking in terms

of “technomindfulness”, a brief introduction on what I actually mean by “technology” and to what extent it is already coming into contact with mindfulness in the perspective of a biopolitical-flavored metamorphosis is necessary.

Thus far, researchers have examined how mindfulness can be described as the product of a long process of transculturation, which eventually gained favor within the prevailing medical system of the Western world, allopathic biomedicine, to be ultimately transformed into a marketable product: a psychotherapeutic technique stripped of its Indian origins and the cultural tradition that constituted its context and presented as an innovative tool, approved by science and directed towards health protection. Mindfulness, reborn in these highly Westernized forms, is undoubtedly something else entirely and is fully integrated into market logistics, which are now overflowing with courses, books, seminars and tangible “products” that generate considerable economic revenue for mindfulness. This process, commodification, the transformation of mindfulness into a sellable product, would not have been possible without the preceding phase of transculturation, which absorbed meditation into the Western cultural context and “digested” it by eliminating elements that would have been intolerable to the neoliberal mindset, rendering it, in fact, “fit to be eaten”, and therefore “fit to be thought”. This final phase represents the ultimate biopolitical culmination of mindfulness, as it will allow for the maximization of its biopolitical intentions through its integration with technological devices, thereby eliminating the need for intermediation with instructors and therapists and gradually replacing them with digital interfaces that enable the biopolitical device to be self-administered by the patient/meditator.

This last transformation, which researchers have merely hypothesized but appears perfectly plausible given the current state of affairs, is possible because mindfulness aligns perfectly with what Sloterdijk has described as “anthropotechnics” (Rodeschini 2008). Researchers should not be surprised by these assumptions about the future integration of mindfulness with technological systems since what has transpired thus far with mindfulness is nothing but a repetition of a script already witnessed, with another anthropotechnic being transformed into a biopolitical device by the Western world, namely, yoga. If researchers were to learn from yoga, researchers would observe the recurrence of the same patterns that have characterized mindfulness. From there, postulating its integration with technological devices should not be difficult, as mindfulness, even more so than yoga, lends itself well to being utilized in such a manner. This would not be the first time: speaking of technical discoveries to exercise power in the seventeenth and eighteenth centuries, Foucault states:

what I find most striking about these new technologies of power [...] is their concrete and precise character, their grasp of a multiple and differentiated reality. [...] It becomes a matter of obtaining productive service from individuals in their concrete lives. And, in consequence, a real and effective “incorporation” of power was necessary, in the sense that power had to be able to gain access to the *bodies* of individuals, to *their acts, attitudes*, and modes of everyday behavior.

(Foucault 2020b, p. 125, *my italics*)

Regarding the analogous transformation of yoga, a recent work by Squarcini (2022) sheds light on the biopolitical aspect underlying commodification intentions. Although not explicitly discussing transculturation, it is evident from Squarcini’s analysis that this step preceded the commodification aspect. Squarcini focuses particularly on Resolution 69/131 adopted by the United Nations on 11 December 2014, which established the International Day of Yoga, an event of “biopolitical significance” (Squarcini 2022, p. 1171), considering that this resolution established “a relationship between yoga and *global health*” that greatly benefited yoga, now regarded as a technique for overall health (ibid., pp. 1172–73). This transformation was sponsored by the Indian Prime Minister Modi himself and generated, it must be acknowledged, a completely new form of yoga, entirely detached from its history within the Indian cultural context or, as Squarcini states, “an unprecedented version of the ancient “health market”” (ibid., p. 1174). The secularization of yoga effectively corresponds to its transculturation, the transformation into something conceivable by Westerners as intriguing, fascinating, yet still “usable”, and this transformation progresses towards its medicalization, assimilation into the allopathic biomedicine context that turns yoga into a health control device but is essentially a “disciplinary practice” (ibid., p. 1180). Squarcini also draws on Sloterdijk and the use of anthropotechnics in a biopolitical sense. Furthermore, there is the commercial aspect: the yoga industry is, in fact, a billion-dollar business with millions of practitioners, which increases exponentially following the announcement of its “official” (albeit within the Western and Westernized cultural framework) recognition of its therapeutic value. In the context of a decolonization effort, there is not enough reflection on the utilization of these devices, which are still improperly perceived as exogenous to Western culture.

The endogenization (or, if you prefer, “acculturation”) of mindfulness is virtually identical to that of yoga, whose history “can be written in the same way one would write the history of any other exotic consumer goods, such as tea, coffee, corn, cocoa, or potatoes” (ibid., p. 1183). Just like with mindfulness, the subversive origin of the cultural device in question is neglected in yoga as well. The historical context of Buddhist practice is anything but ascribable to an idea of officialdom or acceptance of the established order, whereas modern mindfulness and yoga, whose proponents “present themselves

as the modern expression of these traditions and claim their formal affiliation with those same ‘ancient lineages’, overlook—until it is hidden—the aforementioned distinctly disruptive, ‘antithetical’ (*nivṛttika*) and ‘reversive anamnestic’ (*pratiprasava*) character of their perspectives” (ibid., pp. 1184–85).

Although anthropological considerations have yet to fully emerge, studies in this realm offer valuable perspectives. Bruder’s recent article highlights the prevailing significance of mindfulness training programs and apps (Bruder 2022), suggesting that North Americans and Europeans are increasingly conceptualizing mindfulness, as well as their lives more broadly, in algorithmic terms. Technologies play a pivotal role in this process, as observed also by Ruckenstein and Schüll, wherein applications, trackers and device-based pedagogies imbue machinic agency into the way humans define, categorize and comprehend existence. Concurrently, researchers in machine learning are exploring the implementation of rudimentary cognitive principles in artificial neural networks, thereby paving the way for marketing these networks as generative models for human perception and learning. While algorithmic modeling of cognitive processes aims to enhance artificial intelligence, neural networks and neuromorphic devices purportedly advance our comprehension of cognition in the human brain. In other words, contemporary neuroscience, together with neuroscience-inspired machine learning research, appears to converge upon algorithmic understandings of cognition in both humans and machines. This tendency is further compounded in neuroscience-inspired artificial neural networks, as they provide operational models of cognitive labor under conditions of overload and lend themselves well to experimentation with technological remedies for the consequences of working at or beyond capacity. Another recent article by Wang and Uysal (2023) is dedicated to outlining prospective avenues for investigating the escalating trend of artificial intelligence (AI) research in the hospitality literature. This critical reflection paper specifically seeks to identify AI-assisted mindfulness as a critical yet underexplored issue and contribute plausible directions for future research.

The prevailing and continuous acclaim for the advantages of mindfulness within virtual or digital settings in general should be approached with greater caution (Yildirim and O’Grady 2020). While acknowledging the potential existence of such benefits, it is crucial to consider the historical and cultural milieu in which they are defined and their relationship to the respective instrument. It is important to note that medicine, as commonly recognized, lacks singularity and absoluteness (Gaines and Davis-Floyd 2004; Singer 2004; Hahn and Kleinman 1983). When examining its foundational aspects from a cultural standpoint, it becomes apparent that researchers should be wary of embracing a unified and universal perspective, even if it appears to be all-encompassing. Mindfulness gained acceptance and endorsement in scientific circles solely after its incorporation into the clinical realm of allopathic biomedicine. The integration of mindfulness with digital technologies only serves to fortify this perspective, disregarding the contextual factors involved. The development of a critical and ethical framework that centers on individual autonomy and privacy is necessary to maximize the potential of AI-powered tools while minimizing the biopolitical risks associated with their use.

There are two images, then, of discipline. At one extreme, the discipline-blockade, the enclosed institution, established on the edges of society, turned inwards towards negative functions [...]. At the other extreme, with panopticism, is the discipline-mechanism: a functional mechanism that must improve the exercise of power by making it lighter, more rapid, more effective, a design of subtle coercion for a society to come.

(Foucault 2020a, p. 209)

The convergence of AI with mindfulness practices signifies a revolutionary landscape within modern therapeutic approaches that can also enhance dispositives of self-discipline. Researchers should scrutinize the integration of AI within acclaimed platforms like Headspace®, Moodfit®, Woebot® and other tools such as Flowtime (Entertech Ltd., Cardiff, UK) and Muse™. These are just some examples that in the space of a few years could be only an infinitesimal part of a vast panorama of AI models that can be integrated with techno-medical practices such as mindfulness. An assessment of their roles in tailored therapy and cognitive research underscores their significance.

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