

## On Mindfulness as an Alternative to Mindless Modern Consumption

Review of Judson Brewer's *THE CRAVING MIND*

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Every author seems to define the term “addiction” differently, and Judson Brewer’s definition in *The Craving Mind* must be among the most elegant: “addiction is continued use, despite adverse consequences” (Brewer, 2017, p. 18). The beauty of Brewer’s definition is that it captures a huge variety of damaging behaviors, from smoking and drug-taking to excessive gaming and smartphone use. Its breadth also implies that addiction is democratic—that it isn’t a problem reserved for a small group of people, but instead has the capacity to affect most or even all of us.

Brewer’s definition sets an imposing challenge, though, because if everyone is a sometime addict, the solution to addiction must be universal as well. Brewer meets that challenge by offering a solution that’s available to literally everyone at very little cost, while requiring neither drugs nor extended treatment sessions. Brewer’s solution, which forms the heart of *The Craving Mind*, is a targeted form of mindfulness therapy.

I was skeptical when I read Brewer’s proposal. Addiction is notoriously difficult to treat—heroin relapse rates, for example, exceed 90% (e.g., Smyth, Barry, Keenan, & Ducray, 2010)—and mindfulness, as I understood it, seemed like a woolly solution for such an intractable problem. Brewer, to his credit, was also skeptical, so in his first studies he focused on the most stubborn addiction of all: nicotine. (Cigarettes don’t do as much acute damage as heroin and other opioids, but they’re harder to conquer.) Borrowing a line from his graduate school advisor, Brewer’s philosophy was “go big, or go home.” If mindfulness could treat nicotine addiction, surely it could treat other forms of addiction.

Brewer began by testing the approach on his own cravings—a pilot study with a sample of one. As a non-smoker, he was forced to tackle a different challenge. Since nicotine has a half-life of two hours, Brewer taught himself to meditate in silence for two hours at a time, resisting the urge to move with the help of the same mindfulness techniques he hoped to deploy among a sample of smokers. “I was a nonsmoker who needed to be able to relate to patients who felt as though their heads were going to explode unless they smoked,” Brewer explained. “They had to trust me. They had to believe I knew what I was talking about (Brewer, 2017, p. 27)”

*The Craving Mind* features dozens of personal anecdotes like these, which collectively serve two purposes. First, they allow the reader to accompany Brewer on his intellectual journey; though the book is full of fascinating experiments, Brewer’s anecdotes uncover his research process more deeply than statistics and experiments do. Second, they keep the book light and entertaining where similar popular works become dry. The experiments are important because they establish the efficacy of Brewer’s mindfulness technique, but many of the book’s most

illuminating moments are Brewer's most personal. "I don't remember how many *months* it took before I made it the full two hours," he recalls. "I would get to an hour and forty-five minutes and I would get up...I simply couldn't do it. Then one day I did...Each subsequent sit got easier and easier because I had confidence that it could be done. And I knew that my patients could quit smoking. They simply needed the proper tools."

Brewer tested his technique on hundreds of smokers (Brewer et al., 2009, 2011). Patients were randomly drawn to experience either the mindfulness intervention, or the "gold standard" at the time—a comprehensive program run by the American Lung Association called "Freedom From Smoking." Each patient visited the clinic twice a week for four weeks. When the month had elapsed, patients blew into a Breathalyzer-like device that measured the carbon monoxide in their bloodstream, a marker for smoking. The bottom line: "the mindfulness training group had quit *at twice the rate* of the Freedom From Smoking group" (emphasis in the original; Brewer, 2017, p. 33).

Brewer devotes six pages to the intervention and the mechanics of his experiment, but I was left wanting more. Why was the mindfulness intervention so successful? How exactly did it differ from the Freedom From Smoking approach, and which differences mattered the most? It's not that Brewer hasn't considered these questions. In follow-up studies he and his collaborators have focused more closely on the psychological mechanisms that drive smokers to quit when they engage in mindfulness training. Even those experiments paint a sketchy picture. Brewer explains that mindfulness helped his patients recognize why and when they were smoking, and why smoking was itself so unpleasant. One task required them to list how many times they smoked out of boredom. After another task, one smoker suddenly realized how bad smoking tasted: "Smells like stinky cheese and tastes like chemicals. *Yuck*" (emphasis in the original; Brewer, 2017, p. 29).

But we know already that many smokers don't *like* smoking. They'd prefer to quit if they could—and thousands of them know smoking is unhealthy and that it tastes bad, but they go on smoking anyway. Brewer distinguishes between knowing that smoking is bad on an intellectual level, and knowing that it's bad *in your bones*, which leaves you "viscerally disenchanted" (Brewer, 2017, p. 30). Even so, it's hard to see a bright line between these two kinds of knowledge, or how mindfulness promotes this visceral, energizing form of knowledge. Surely Brewer's approach provides more than clarity; it must offer a shield against the craving.

I reread this section of Brewer's book several times, trying to work out exactly why his approach is so effective. At its heart is a process he calls "surfing." He explains that surfing—or turning towards our cravings rather than trying to resist them with brute force—includes four steps that follow the acronym RAIN (p. 31):

RECOGNIZE/RELAX into what is arising (for example, your craving)

ACCEPT/ALLOW it to be there

INVESTIGATE bodily sensations, emotions, and thoughts (for example, ask, “What is happening in my body or mind right now?”)

NOTE what is happening from moment to moment

Perhaps mindfulness is effective not because it disrupts why people *like* smoking, but rather because it changes how much they *want* to smoke. This is a critical distinction, both neurologically and behaviorally. In the early 1990s, neuroscientist Kent Berridge noticed that rats—and people—went on wanting an addictive substance even as they grew to hate it (for an accessible summary, see Berridge & Robinson, 2016).

Consider cocaine, for example. Many cocaine addicts experience euphoria when they first take the drug. In Berridge’s terms, they both like and want cocaine. But liking is far more “fragile” than wanting. Over time it wanes even as the addict goes on wanting the drug. This was true for Sigmund Freud, who was seduced by cocaine. In 1884, Freud wrote a paean to the drug, titled *Über Coca* (see Alter, 2017; Markel, 2012). Freud called his essay “a song of praise to this magical substance,” a position he reached after treating his own depression and indigestion with the drug for several months. For twelve years, Freud wrote about cocaine in letters to his wife, Martha Bernays. At first, he was enamored of the drug. “The psychic effect of [cocaine]... consists of exhilaration and lasting euphoria, which does not differ in any way from the normal euphoria of a healthy person.” Over time, though, Freud’s tone changed. He recognized early on that, “after from three to five hours there is a decline in the feeling of well-being, and a further dose of coca is necessary in order to ward off fatigue.” As he developed a tolerance, he began taking larger and larger doses, sometimes a dozen or more times a day. In 1895 his nose became infected, and he endured several operations to repair a collapsed nostril. Freud was miserable—he had long ago stopped liking cocaine—but he went on wanting the drug, and continued to take it for another year even as his health declined. Freud had known the drug was harmful for years, but he continued to crave it until it almost cost him his life.

Perhaps, based on Brewer’s description, meditation disrupts the process of *wanting*. “Without a craving,” he says, “people were much less likely to smoke... indeed, before mindfulness training, craving predicted smoking. If people craved a cigarette, they were very likely to smoke one. Yet by the end of the four weeks of training, this relationship had been severed... over time their cravings decreased as they quit smoking.” Meditation allowed Brewer’s patients to resist the initial temptation to smoke, which in turn starved the fire that fed their craving (p. 35). Brewer writes so fluidly that the process of quitting comes to seem effortless. But it’s hard to believe that mindfulness is a panacea; surely it doesn’t work equally well for everyone and it isn’t an easy fix. Even Brewer himself struggled for months to sit still for two hours—a difficult task, but surely easier than severing a lifelong drug addiction.

Brewer divides *The Craving Mind* into two sections. Part One includes six chapters with titles like “Addicted to Technology,” “Addicted to Thinking,” and “Addicted to Love.” These titles suggest that each chapter focuses on a different class of addictive substances or experiences, but that isn’t quite true. In a chapter called “Addicted to Ourselves,” Brewer says he admired Lance Armstrong so deeply that he was incapable of accepting the news that Armstrong was doping during his legendary run of seven Tour de France wins. “Was I addicted to Lance?” Brewer asks himself. I found myself disoriented by some of the material in this chapter and occasionally elsewhere deeper into this section of the book. How was Brewer’s inability to “quit” Armstrong a case of self-addiction, as the chapter title implies? And what does it mean to be addicted to the self? These are interesting philosophical questions, but they distract from what seemed to be the book’s central message: that targeted meditation is an effective treatment for addiction.

Part Two of *The Craving Mind* is titled *Hitting Up Dopamine*, a play on Part One’s title, *The Dopamine Hit*. This second part is far briefer than the first, and it, too, is entertaining. Brewer’s discussion of *flow*, Mihaly Csikszentmihalyi’s widely popularized concept describing a state of deep engagement, is particularly illuminating. Flow, as Brewer neatly describes it, is “zoning in,” rather than “zoning out” (p. 164). One of the most striking findings that Brewer reports is that a novice can be trained to meditate—to enter a state of flow—if you give her real-time feedback of the activity in her posterior cingulate cortex (PCC; see, e.g., Brewer & Garrison, 2014). Brewer placed himself in an fMRI machine as he meditated, and found that the PCC was more active when he was distracted—when his mind was “all over the place.” Activity in the PCC, as he described it, “decreased when people concentrated...and increased when people were distracted or their minds wandered” (p. 111; see also Mason et al., 2007; Weissman, Roberts, Visscher, & Woldorff, 2006). Novices could be trained to exercise their concentration muscles, and expert meditators could discern why their PCC activity spiked from time to time as they meditated. During a run of low activity, one expert explained, “I settled in and was really getting into it,” whereas he explained a run of high activity by suggesting that he was distracted by what he saw on the screen—“...and then I thought, “Oh my gosh, this is amazing...it’s doing exactly what my mind is doing.”

These moments of self-insight, from Brewer and from some of his research participants, are so illuminating that I found myself wanting more detail. The book includes a brief but helpful discussion of the neuroscience of addiction—and deeper discussions of mindfulness and mind-wandering—but it’s very light on phenomenology. Since mindfulness is a subjective experience, easier to understand through verbal descriptions than brain activity, it would have been useful to hear more about the personal experiences of some of Brewer’s successful patients. How did they shake their addictions? How did mindfulness help? A couple of eloquent descriptions would have gone a long way to uncovering the process—and to making it easier for readers to apply to their own vices.

One example, in particular, illustrates the importance of addressing phenomenology. Brewer asks, “Is it possible that the same brain region that lights up when someone smokes crack cocaine or uses any other drug of abuse is also activated when people talk about themselves?” This isn’t an uninteresting question, but it’s incomplete without a discussion of why overlapping brain activity matters—and why it’s sometimes misleading. We know, for example, that the brains of hospital patients who receive very strong doses of opioid painkillers act similarly to the brains of heroin addicts as they inject a dose of heroin. It might be tempting to conclude that those hospital patients are addicted to opioids because their brains mirror the brains of heroin addicts, but most patients live without regular doses of narcotic painkillers once they leave the hospital. Brain activity is misleading, because it obscures the importance of other factors. Post-surgical patients with strong social networks, stable jobs, and financial independence, are far less likely to develop addictions than are patients who leave without social and financial support, but those differences don’t show up reliably on brain scans. It’s useful to know that the nucleus accumbens plays a role in addiction (and in thinking about the self), but it’s also important to understand how those two experiences differ phenomenologically, beyond simple brain activity. (And if they don’t differ, that’s worth discussing explicitly as well.)

Brewer’s *The Craving Mind* is an important, groundbreaking book. The notion that mindfulness is tentatively capable of treating a range of addictions is tantalizing, though it also poses further questions. The approach seems to help smokers, but how does it fare for narcotics users? Nicotine addiction may be more stubborn, but it’s also less immediately damaging, and less likely to impair the cognitive functions that drive meditation. As with so many insightful books, my only “complaint” is that I was left wanting more—more information about Brewer’s methods, about how his participants felt as they explored the mindfulness method, and about why mindfulness appears to diminish addiction. But of course that’s a good problem to have when reading a book: to be left wanting more, rather than wishing it would end.

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## References

- Alter, A. L. (2017). *Irresistible: The rise of addictive technology and the business of keeping us hooked*. (New York: Penguin Press.)
- Berridge, K. C. & Robinson, T. E. (2016). Liking, wanting, and the incentive-sensitization theory of addiction. *American Psychologist*, 71, 670-679.
- Brewer, J. A. (2017). *The craving mind. From cigarettes to smartphones to love—why we get hooked and how we can break bad habits*. (New Haven, CT: Yale University Press.)
- Brewer, J. A., & Garrison, K. A. (2014). The posterior cingulate cortex as a plausible mechanistic target of meditation: Findings from neuroimaging. *Annals of the New York Academy of Sciences*, 1307, 19-27.
- Brewer, J. A., Mallik, S., Babuscio, T. A., Nich, C., Johnson, H. E., Deleone, C. M., Minnix-Cotton, C. A., Byrne, S. A., Kober, H., Weinstein, A. J., Carroll, K. M., & Rounsaville, B. J. (2011). Mindfulness training for smoking cessation: results from a randomized controlled trial. *Drug and Alcohol Dependence*, 119, 72-80.
- Brewer, J. A., Sinha, R., Chen, J. A., Michalsen, R. N., Babuscio, T. A., Nich, C., Grier, A., Bergquist, K. L., Reis, D. L., Potenza, M. N., Carroll, K. M., & Rounsaville, B. J. (2009). Mindfulness training and stress reactivity in substance abuse: results from a randomized, controlled stage I pilot study. *Substance Abuse*, 30, 306-317.
- Markel, H. (2012). *An anatomy of addiction: Sigmund Freud, William Halsted, and the miracle drug, cocaine*. (New York: Vintage.)
- Mason, M. F., Norton, M. I., Van Horn, J. D., Wegner, D. M., Grafton, S. T. & Macrae, C. N. (2007). Wandering minds: The default network and stimulus-independent thought. *Science*, 315, 393-395.
- Smyth, B. P., Barry, J., Keenan, E., & Ducray, K. (2010). Lapse and relapse following inpatient treatment of opiate dependence. *Irish Medical Journal*, 103, 176-179.
- Weissman, D. H., Roberts, K. C., Visscher, K. M., Woldorff, M. G. (2006). The neural bases of momentary lapses in attention. *Nature Neuroscience*, 9, 971-978.