BOOK REVIEW


Inna Z. Khazan, PhD, BCB (2013), Chichester, UK: John Wiley & Sons

Reviewed by Christopher Gilbert, PhD, BCB

This book describes how to apply mindfulness principles to the practice of biofeedback. As a general system for improving mental awareness and self-control, mindfulness can probably help one do anything better, including playing video games or starting a business. Biofeedback, however, is especially well-suited to this assistance, because it depends on learning to influence normally automatic or semi-automatic biological processes, which are themselves reactive to one’s moment-to-moment feelings about success and failure. Introducing elements of mindfulness, as the author explains in detail, makes the process smoother by teaching the client/trainee to avoid effortful striving for control, which generally is contrary to the goals of biofeedback.

Mindfulness is a general approach to addressing problems that arise from having a modern human mind built on the foundations of a primate-mammalian-reptilian brain. The disjunctions and errors of reasoning, the deficits in self-control, the self-chastising, and the impulsive and compulsive actions that bring us trouble are all addressable by increasing access to our best judgment.

A large part of biofeedback goals involves self-mastery, influencing the physiology to act more appropriately to the current situation, instead of being pulled into time warps of the past or future. Conditioning, catastrophic expectations, and biased emotions activate bodily alarm systems, over and over, for no good reason. In a mindful state, we are more likely to realize this and turn off or modify the alarm along with the needless striving, defenses, or whatever takes over the body for primitive reasons.

Reading this book, I sometimes thought that it could be meant to teach biofeedback as an adjunct to mindfulness, rather than the reverse. By re-titling the book and shifting emphasis in the text, it could serve well as a beginner’s instruction guide for mindfulness, with biofeedback included as a way to validate and speed the learning. But the book is primarily a guide to doing biofeedback, with suggestions woven in for integrating the mindfulness approach when appropriate.

The Clinical Handbook of Biofeedback is 338 pages long, paperback, and of reasonable size and weight. The price is $60 for the paperback and $43–$49 for an e-book, depending on the source. The book assumes a basic familiarity with biofeedback and psychophysiology, but it does not assume too much: The author states that the book is meant for those who have had at least introductory training in biofeedback. This book would be a fine next step after completing a BCIA 48-hour certification course but also would repay study by seasoned practitioners.

The content on mindfulness is not intrusive because the basic principles are very applicable to the process of doing biofeedback. Many of these techniques are already used by biofeedback therapists without even knowing that they’re part of a larger approach to life. Biofeedback aims to expand
body/mind awareness (introspection and interoception) and improve sensing of inner biological states even as they respond to intentions to regulate them. (Watch the movie The Horse Whisperer sometime with this idea in mind.) The book is primarily a guide to doing biofeedback, with suggestions woven in for integrating the mindfulness approach when appropriate. The biofeedback trainer has to help the trainee handle the frustration and confusion that are part of extending one’s domain over one’s inner world and dealing with the failures and setbacks that accompany any learning. Introducing mindfulness to this process should make it go easier, if only by encouraging noncritical acceptance of whatever happens.

The book describes many small details of the biofeedback training process in a brief, direct way. For example, the author proposes (p. 158) that because most blood vessels have only sympathetic input, influencing skin temperature is the most sensitive modality to counteract “trying too hard.” “Effort, by definition, involves sympathetic activity. Increased sympathetic activity triggers vasoconstriction. Passive volition is the only way to allow the sympathetic response to quiet and for blood vessels to dilate, thereby raising peripheral circulation.”

This book is not encyclopedic, and there is no attempt to cover electroencephalography biofeedback. It is natural to compare it to the monumental Biofeedback: A Practitioner’s Guide (2003, third edition), edited by Mark Schwartz and Frank Andrasik. That book is a very different guide to practice, full of background basics including an explanation of electricity and the workings of each biofeedback modality and whole chapters on pelvic biofeedback, Raynaud’s, fibromyalgia, neurofeedback, sports applications, and abundant historical details. Yet it is three times the length (and weight) of the Clinical Handbook of Biofeedback, and step-by-step, systematic practice details are few. A beginner in biofeedback asking, “What exactly do I do?” will be well guided by Khazan’s book and could be overwhelmed by the bigger one.

Khazan’s book has good coverage of muscle biofeedback, including valuable sections on tension recognition, discrimination, and deactivation: This is a useful term for relaxation of particular muscles without invoking the global word relaxation, which carries a retinue of excessive connotations and associations. There are good assessment protocols for upper trapezius and computer use problems. Khazan also presents enough details about the value of wide-band electromyography monitoring to prevent mistaking muscle fatigue for muscle relaxation. Examples of procedures are abundant, both case studies and graphics, and screen shots and photos illustrate her points well.

There is also good coverage of breathing, especially the use of capnometry and a thorough explanation of end-tidal CO2 and its role in homeostasis. Mindfulness seems especially useful for breathing applications because awareness of breathing differs from muscle, temperature, galvanic skin response, and even heart rate. The cyclical nature of breathing permits easy self-observation and is intimately linked to thoughts and feelings, always ready to yield to conscious control and often seeming to anticipate it. Yet breathing resumes automatic regulation as soon as the attention goes elsewhere. It is a good learning environment for developing a collaboration with automatic body controls, as yoga has taught for centuries.

A novel section describes the counterpart to stress profiles: relaxation profiles, in which a client is led through a variety of relaxation techniques such as autogenics, progressive muscle relaxation, breathing, and guided imagery. This procedure can provide information about what works best with the client as defined by the psychophysiological readings, how different systems respond to different relaxation inductions, and the client’s accuracy in sensing what was most effective according to the psychophysiological data.

There is also a useful chapter on treatment planning, with suggestions on how to integrate results of a stress profile with knowledge of the client’s symptoms, taking into account the research support for proceeding with certain applications. The author’s broad knowledge of both health psychology and clinical psychology is evident; she reviews diagnostic information for psychologically based disorders such as anxiety and posttraumatic stress disorder, and summarizes the biological factors in other, mostly stress-related disorders. Many well-designed checklists and training and practice logs are supplied; the author takes the “step-by-step” phrase in the title seriously and goes to the extra trouble of leaving things vague.

Missing is a historical perspective; although not essential for practice, knowing the roots of a discipline can help to orient a new practitioner to the field while they still have the valuable outsider’s mind. Major figures in the formative days of biofeedback such as Charles Stroebel, John Basmajian, and Elmer Green are absent from this book. The concept of passive volition for biofeedback was developed and elaborated by Elmer Green, and it is identical to a principle of mindfulness. Historical information and much more is covered in the Schwartz and Andrasik book,
weighty as it is, so a well-prepared biofeedback practitioner would be best off with both volumes.

Finally, it seems that mindfulness, well-practiced, could make some biofeedback superfluous by diminishing the reasons for provocation of symptoms to begin with. If clients are taught to change the ratio of “mindful” to “mindless” in their perception and behavior, learning to respond instead of reacting to stimuli and situations, and avoiding harsh self-judgment regarding the learning process, the stress response patterns that keep biofeedback practitioners in business may cease to be problems. In the end, the two approaches share common goals, and this book provides expert guidance in merging the two to reach those goals.

I recommend this book highly for beginners and experienced practitioners alike.