

FROM THE EDITOR

Special Issue: Mindfulness and Compassion in Biofeedback Practice

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The cover of this special issue of *Biofeedback* symbolizes the precious gifts of mindfulness and compassion in an impersonal technological world (thanks to Shutterstock for the image).

Introduction to the Special Issue

This special issue on “Mindfulness and Compassion in Biofeedback Practice” is a continuation of the themes presented in the Fall 2015 special issue on mindfulness. Guest Editor Inna Khazan, author of *The Clinical Handbook of Biofeedback: A Step-by-step Guide for Training and Practice with Mindfulness* (2013), has once again gathered a rich assortment of authors and topics to chronicle the application of mindfulness and compassion in education, healthcare, and clinical biofeedback practice.

In the lead article, Inna Khazan introduces a comprehensive approach for achieving optimal human performance in a variety of professional settings, including highly challenging ones. Her article references applications to public speaking, executive functioning, athletics, and musical performance. Most importantly, she challenges the common belief that relaxation is the key to optimal performance. Her approach draws on the contributions of biofeedback, mindfulness techniques, and cognitive reappraisal. This article also presents Khazan’s step-by-step approach to training, including an easy-to-use technique called FLARE.

Brad Lichtenstein provides a foundational article, discussing the historical origins of the mindfulness concept, and highlighting core dimensions in mindfulness that are also critical for psychotherapy: the self-regulation of attention, the focus on the present moment, and the commitment to “non-elaboration.” This final dimension of non-elaboration includes an acceptance of what is experienced in the moment, a suspension of judgments, and the cultivation of tolerance for unpleasant phenomena. Lichtenstein discusses the leading applications of mindfulness

within psychotherapy, and also the application of mindfulness to biofeedback practice.

Lawrence Edwards advocates for the integration of mindfulness training into school systems, to reduce stress and anxiety in both students and instructors. He suggests that paced breathing and biofeedback training are both potentially valuable tools to aid in teaching and strengthening mindfulness skills. He cites his experiences teaching high school students to pace their breathing and focus their attention mindfully around the breathing process.

Erik Peper and colleagues discuss an educational approach to promote health and well-being. Peper has utilized an educational approach in his holistic health and biofeedback courses at San Francisco State University for decades, and is impressed with how many students successfully integrate self-regulation skills in alleviating medical and emotional problems. The authors provide a narrative of a 20-year old college student with migraines who learned mindfulness, self-regulation and biofeedback skills, including autogenic training, muscle biofeedback training, and postural changes, as part of her assignments within a university class, and was able to reduce her migraines from five to zero per week.

In her article, Urszula Klich discusses the clinical use of self-compassion within mindfulness-based biofeedback in the treatment of veterans and spouses. Klich begins by discussing the culture of military veterans, including pride in service, self-sacrifice, and emotional avoidance, which have survival value in combat situations, yet can impede psychologically oriented treatment. Klich proposes that veterans can learn to regulate their emotional and physiological reactivity through biofeedback, mindfulness, and compassion skills. She uses the case study of a veteran and his spouse to illustrate the introduction of compassion and self-compassion perspectives, as well as the use of biofeedback to demonstrate the physiological effects of self-acceptance.

Elizabeth Johnson presents a case study of a male business executive in his 50s with a long-standing history of irritable bowel syndrome (IBS). There is mounting support for the use of mindfulness and acceptance-based skills in conjunction with biofeedback training in the management of psychophysiological conditions such as IBS. The treatment program included multi-modal biofeedback, exercises in paced breathing, and training in mindfulness and acceptance-based skills. Daily self-ratings showed a steady diminution of IBS symptoms. The patient also expressed growing confidence with the use of biofeedback-assisted relaxation skills and mindfulness in managing life stress.

Arnon Rolnick and colleagues introduce two innovative concepts in psychological treatment. First, they introduce David Barlow's Unified Protocol, which is a short term, cross-diagnostic, empirically-based treatment protocol for a variety of disorders (Barlow, Allen, & Choate, 2004). The Unified Protocol integrates elements of mindfulness and acceptance as central intervention skills. In addition, the authors introduce Sensor-Enhanced Therapy, the addition of biofeedback monitoring and training to enhance the effectiveness of many behavioral and psychotherapeutic approaches. They observe that patients monitoring their physiology frequently report greater awareness and acceptance of the accompanying emotional states. In this way, the biofeedback device becomes a tool for achieving mindful moment-to-moment awareness of mind and body.

Noel Larson, Sarah N. Wyckoff, and Leslie Sherlin contribute a review of the emerging research on integrating biofeedback, neurofeedback, and mindfulness in optimal performance work with athletes. They introduce practical strategies for combining biofeedback and mindfulness for sport-based applications, and provide a case study on a 22-year old collegiate Division 1 golfer, experiencing performance anxiety. Their training protocol with the golfer included heart rate variability training, QEEG-guided neurofeedback training, and a program of mindfully-based interventions for anxiety. The athlete showed benefits in golf performance that also generalized to everyday life.

Donald Moss contributes a case narrative of a 71-year old caregiver experiencing an anxiety disorder. Caregiver stress is a growing problem with an aging population; many spouses and other family members are cast in the caregiver role for extended periods. Pre-existing anxiety disorders commonly recur in the face of caregiver stress. The narrative illustrates the use of mindfulness training, breath training, and heart rate variability biofeedback for the

woman's anxiety disorder. The article also shows the use of an overall self-directed program of acquiring self-regulation skills and implementing life style changes as a supplement to professional intervention.

Technology Corner

Fredric Shaffer, Didier Combatalade, and Erik Peper present a useful discussion of how to obtain cleaner skin temperature recordings, and how to achieve more versatile use of thermal biofeedback technology. Their article addresses accurate recording, the underlying physiology affecting skin temperature, and the elimination of artifact.

References

- Barlow, D. H., Allen, L. B., & Choate, M. L. (2004). Toward a unified treatment for emotional disorders. *Behaviour Therapy*, 35, 205-230.
- Khazan, I. Z. (2013). *The clinical handbook of biofeedback: A step-by-step guide for training and practice with mindfulness*. Oxford: John Wiley & Sons.



Donald Moss



Inna Khazan

Proposals and Abstracts

The Winter 2016 issue will focus on "Clinical Practice in Neurofeedback: Advances and Applications." Contributions are invited for this special issue. General articles on topics in biofeedback, neurofeedback, and applied psychophysiology are welcome, as are proposals for an additional special issue. Feature articles should not exceed 2,500 words; department articles, 700 words; and letters to the editor, 250 words. Articles should be in American Psychological Association (6th Edition) format.