REVIEW

Handbook of Neurofeedback, Dynamics, and Clinical Applications


Reviewed by Roger deBeus, PhD

In the Handbook of Neurofeedback, Dynamics and Clinical Application, James Evans has done an excellent job of bringing together a diverse array of information from a respectable group of contributors. The book’s intended audience ranges from those interested in entering the field to experienced clinicians. A minimal acquaintance with the concepts of biofeedback, electroencephalography (EEG), and quantitative EEG (QEEG) will make the material readily comprehended by most readers. The chapters are written by various professionals in the field reflecting their clinical experience with a variety of neurofeedback (NF) techniques. Although research is mentioned in most of the chapters as supplementary information, it is not a focus of this book. The book is divided into four sections: (1) history of the field, (2) speculation about the mechanisms of NF, (3) general clinical applications, and (4) specific clinical applications.

The first section on history contains one chapter by Adam Crane. As with most pioneers, Crane shares a history of the field that a small amount of people in the field know about. He offers unique insight about the field’s evolution, current status, and potential future directions.

The second section on theory contains two chapters. One chapter by Siegfried Othmer discusses network models for NF. The James Evans and Martha Rubi chapter identifies all of the possible variables that may impact NF outcomes. The Othmer chapter is thick but offers an interesting perspective while Evans and Rubi challenges one’s way of thinking about clinical effectiveness.

The third section on general applications contains six chapters. The first chapter is about tomographic NF by Marco Congedo and David Joffe. Although this chapter is somewhat technical, it presents the newer area of multichannel spatial filtering NF with its hopes and challenges. The next chapter is on the evolution and details of interhemispheric EEG training by Susan and Siegfried Othmer. The Othmers present this information in an accessible manner while acknowledging the unknowns with their model. Then, Tim Tinius outlines the details and results of combining cognitive training exercises and NF. Tinius presents the information in a straightforward manner with good detail. David Seiver discusses audio-visual entrainment (AVE) with various clinical populations by itself or in conjunction with other NF modalities. Seiver does a good job in providing a lot of information in a short amount of space and may be more research than clinically oriented. Next, Victoria Ibrić and Charles Davis present on the ROSHI in NF, touting quicker and longer lasting results than traditional NF. The authors provide a well-rounded presentation about using the ROSHI with case examples. Finally, Joe Horvat discusses his clinical experience with coherence and phase training. Horvat was one of the first to use coherence NF training and does an excellent job of sharing his clinical experiences.

The fourth section on specific clinical applications has six chapters. The first chapter is about brain brightening (improving cognitive functioning with NF modalities) with the aging mind by Thomas Budzynski, Helen Budzynski, and Hsin-yi Tang. These authors present an abundance of useful information in an easy-to-read format. The next chapter by Lynda Kirk focuses on Attention-Deficit/Hyperactivity Disorder (AD/HD) with subtypes, comorbidities, established treatments, and the “basic three” NF protocols. The information is well presented and a good summary of treatments. Lester Fehmi presents on multichannel EEG phase synchrony training and verbally guided attention training for disorders of attention. This chapter gets thick at times due to the nature of synchrony but presents Fehmi’s clinical evolution and approaches well. The next chapter is about NF and Autistic spectrum disorders by Betty Jarusiewicz. Jarusiewicz presents the information and her evolution of training this special group of people with a great deal of passion. Jonathan Walker, Robert Lawson, and Gerald Kozlowski discuss QEEG and NF in the treatment of clinical depression. These authors are succinct and to the point while providing protocols and case examples. Finally, QEEG-guided NF with brain injury is presented by Jonathan Walker. Walker is also succinct while expounding on ways the NF field can improve its credibility.

If someone reads this book as quickly as possible, it feels like one has just attended a NF conference: All this
information and where do I start? On the other hand, if it is read as a reference it makes for an interesting guide to help learn about various approaches and possible ways to improve one’s clinical practice techniques. The topics may also lead readers to seek more information and/or training about the various methods of NF described in this book. It may also help readers to brush up on what they did not learn in courses or conferences.

The reader should also know that NF is a rapidly developing field and this book is just a snapshot. Some of the information, while very useful, may have been updated since its release last year. In addition, there are other NF approaches and potential contributors that are not included in this book. This is not meant as a criticism, but as a statement of the reality of the diversity and scope of the field.

One small side note: Although it is not apparent in the reading, about half of the contributors in this book represent some kind of financial interest in a company offering products or services to the NF community. This information is meant to inform and not to dissuade the reader since it is typical of the “small” NF field. In closing, as a collective work this is one of the best books available for someone interested in or already using NF.

For more detailed chapter information and for ordering the reader is invited to this Website: http://www.haworthpress.com/store/PDFFiles/ForReps/Evans-Neurofeedback.pdf

**Note**

Roger deBeus has no financial interest or conflict of interest with this book and any of its authors.