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FROM THE EDITOR

Advances in the Use of Neurofeedback and Quantitative Electroencephalography

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The cover of this issue shows the faces of Autism Spectrum Disorder (ASD)—boys currently receiving neurofeedback treatment with Dr. Robert Coben to address their ASD. This cover introduces the theme of this special issue: Advances in the Use of Neurofeedback and Quantitative Electroencephalography (QEEG). Neurofeedback and QEEG continue to be the largest growth area for practitioner training and clinical practice within biofeedback. This special issue attempts to identify newer, less familiar applications of neurofeedback and divergent perspectives on neurofeedback practice. This issue also shows the emerging international quality of biofeedback research and practice, with one report from China and one from Austria.

Professional Issues

Sebastian Striefel provides the second article in an important two-part series on the potential side effects that can accompany biofeedback, neurofeedback, and other self-regulation therapies. He suggests that practitioners have a responsibility to know common adverse effects produced by biofeedback interventions, to educate patients about potential negative effects, and to provide skilled interventions to minimize or eliminate the negative effects on clients.

Fred Shaffer provides an update on progress at the Biofeedback Certification Institute of America, including an overhaul of the General Biofeedback and EEG exams, the addition of an independent study option to fulfill the anatomy and physiology requirement, and the creation of new options for experienced practitioners to earn Certification by Prior Experience.

Imei Lin provides an overview on the emergence of biofeedback practice and psychophysiological research in Taiwan. The new availability of Chinese-language biofeedback efficacy studies and one Chinese-language textbook, as well as the increased availability of organized biofeedback training programs, is supporting wider use of biofeedback in academic, clinical, work-site, and sports settings.

Special Issue Articles: Advances in the Use of Neurofeedback and QEEG

A team headed by Michael Doppelmayr of Salzburg, Austria, reports on recent applications of neurofeedback to the rehabilitation of cognitive function after stroke. Their results thus far are inconsistent but suggest the need for additional research to explore the potential benefits for stroke victims.

Robert Coben overviews the emerging evidence that abnormalities in regional connectivity in the brain may contribute to ASD. Areas of excess connectivity and areas of deficient connectivity are found on QEEG, and Coben presents a case study showing that neurofeedback retraining of these abnormalities produced progress in many areas, including communication, socialization, and academic learning. Dr. Coben's work offers hope to the many who suffer with ASD.

J. Noland White and Leslie Sherlin provide a conceptual article, advocating that neurofeedback practitioners and researchers begin to think outside the box. They especially advocate using additional biofeedback modalities in order to provide multiple windows on the individual's total psychophysiology.

D. Corydon Hammond and Lynda Kirk mine an unusual source of information on common adverse effects of neurofeedback practice. The authors tracked reports on seven public and professional Internet list groups about side effects and adverse reactions, and they compiled information from those informal clinical communications. Their findings lead the authors to call for improvements in professional training and knowledge in order to avoid both harm to the patient and damage to the reputation of neurofeedback as a field.

Finally, Roger deBeus reports on a pilot study comparing QEEG-guided neurofeedback with Scott/Peniston-protocol neurofeedback, using a sample of substance abusers. This preliminary research demonstrated that both neurofeedback groups showed significantly more improvement on several

measures than did the wait-list controls, who received only standard substance abuse treatment. This study once again confirms the effectiveness of neurofeedback for substance abuse disorders, although the study was not able to resolve the continued question about any advantage of one neurofeedback protocol over another.

Book Review

Christopher Gilbert reviews a book by Erik Peper, Katherine Gibney, and Catherine Holt, *Make Health Happen: Training Yourself to Create Wellness*. Erik Peper is a past-president of Association for Applied Psychophysiology and Biofeedback and a frequent contributor to *Biofeedback*. This book emphasizes the power of self-regulation and attitude change to improve long-term health and introduces practical coping strategies, including relaxation skills, cognitive change, and imagery.

Donald Moss

Proposals and Abstracts

Proposals and Abstracts are now invited for future special issues of *Biofeedback*. Articles are welcome for three scheduled special issues: Advances in Heart Rate Variability, Research, and Practice, for Spring 2008; The Psychophysiology of Breath, for Summer 2008, or Advances in Neurofeedback and Quantitative EEG, for Winter 2008. The editor also welcomes proposals for future special issues of *Biofeedback*.