Biofeedback/Mindfulness Training for the Advanced High School Musician

Ann A. Trechak
CEO, Sound Health Designs, LLC; Executive Director, Camp Allegro Wichita, Wichita, KS

Keywords: optimal performance, music training, biofeedback, mindfulness, gifted musicians, autism

The author summarizes 35 years of utilizing psychophysiological training to assist in the pursuit of optimal music performance. She integrates systematic musical instruction with self-regulation training, drawing on EEG biofeedback training, heart rate variability training, and other biofeedback modalities. This integration of musical skills training and biofeedback assisted over one hundred high school age musicians to earn “All State” status, enabled numerous wind musicians to gain national recognition, and assisted two autistic children in becoming musical prodigies.

For 35 years, I have endeavored to explore and articulate the psychophysiological correlates to optimal musical performance. My experiences as a professional French hornist, both optimal ones and otherwise, have afforded me thousands of opportunities to reflect upon and hone effective strategies for personal performance as well as instruction to students.

I have been fortunate to have studied with eminent professionals in both of these disciplines. My horn professor, one of the most respected performers of his generation, can be heard on recordings deemed among the greatest of all time, the Chicago Symphony under Fritz Reiner. From him, I learned to be relentless in the pursuit of perfectly realizing the composers’ intention, but, like many musicians who were trained in the “old school,” I have had to come to terms with aspects of this approach that can ultimately lead to physical injury as well as emotional burnout.

Decades ago, I read Timothy Gallwey’s (1974) “The Inner Game of Tennis” and adapted related material into a workshop entitled, “The Inner Game of Horn.” Not long after, Gallwey and Barry Green collaborated on a book, “The Inner Game of Music” (Green & Gallwey, 1986). Part of the workshop included an exercise using heat sensitive “stress dots.” I distributed them without instruction as to their purpose, then told the students I was going to select a subject to sight-sing a Bach chorale. As I scanned the room, I could sense the tension rising, then instructed them to stop and check the dots on their fingers, which were of course black. Following that was a discussion of the relationship of hand temperature to sympathetic nervous system arousal and a 15-minute guided relaxation visualization, with the resulting blue dots and much appreciation from the students.

Over the years, my rigorous training on the French horn combined with exploration of mindfulness states, allowed me to develop a specialty niche within my profession, a peak performance coach to the advanced, competitive high school musician. More than 100 of my students have earned “All-State” honors and, as time progressed, I have had the opportunity to take formal training in bio/neurofeedback, transitioning my career into educational bio/neurofeedback.

As I have brought many of the best modalities and instrumentation systems in the biofeedback profession (Nexus-10™, Mitsar™ QEEG, Brainmaster™, Peak Achievement Trainer™, Play Attention Trainer™, Mind-Alive AVE, HeartMath™, StressEraser™, The Journey to Wild Divine™, Monroe Institute CDs, and more) into my French horn teaching studio, even higher levels of success have been consistently achieved, including a national champion in horn. Just as satisfying was the opportunity to witness transformations that seemed miraculous: Siblings who were autistic and were warehoused in special education had their learning normalized through neurofeedback, learned optimal heart rate variability (HRV) through instruction on the horn and trumpet, made continued educational gains, moved into the gifted classroom and along the way became musical prodigies.

Uses of the Nexus-10 (Stens Corp., San Rafael, CA) include respiration training with EMG recorded from the trapezius for optimal air volume/control, EMG training strengthening the facial triangularis muscle while reducing tension in the sternocleidomastoid for optimal endurance, temperature training paired with the sounding of an A-440...
(orchestral tuning note) to create a conditioned relaxation response used in performance, and HRV training for emotional regulation during practice for optimal efficiency of learning. From the Peak Achievement Trainer (Peak Achievement Training, Goshen, KY) I was able to teach optimal variability of arousal states as well as efficient “micro-breaks” for increased attentional stamina. The Play Attention Trainer (Biofeedback Instrument Corp., New York, NY) is useful with younger students, teaching the relationship of extraneous movement to focus. Through HeartMath (HeartMath LLC, Boulder Creek, CA), I’ve taught students to “love their mistakes” as opportunities for growth and to sing whole-heartedly through the horn. The Monroe CDs (The Monroe Institute, Faber, VA) have become a standard part of preparation for my students, allowing them to tune out the external environment effectively as needed prior to performance. During each lesson with my students, I personally maintain a very high state of HRV “coherence,” which I believe facilitates student success.

The opportunity to continue to integrate bio-neurofeedback into music instruction and optimal performance is exciting to me, and my next endeavor will be to collaborate with professionals on other instruments, assisting them in utilizing these modalities for accelerated learning within their own disciplines. In this way, I wish to assist in the promotion of the extremely effective and relevant profession of biofeedback.

References

Correspondence: Ann A. Trechak, 1036 N. Lawrence Court, Wichita, KS, 67206-1448, email: aatrechak@yahoo.com.