

A Pianist's Story of Self-Discovery, Transformation and Resilience

Whenever I ask musicians to describe how they were brought into music and what inspired them, their eyes light up. Everyone remembers a special person, or hearing a particular piece or instrument and falling in love with it. They remember playing from the heart.

And, upon reflection, most can recall the moments when that began to change. I have heard thousands of stories about a change in teachers, repertoire, criticism and/or judgement from others about their playing that cast a dark shadow over the joyous learning experience. The silence of this inner struggle created a “new normal” – for some it fueled their desire to excel, to be the best, and in others, it began the running subconscious tape of self-doubt.

Unfortunately, our conservatories and music institutions come with their own endless supply of stressors that are not impacting our students for the greater good. At this elite level, students are impacted by these stressors 24/7. The fear of making mistakes, memorizing the music, teacher expectations, juries, competitions, the message of having to win – these factors all cause depletion throughout our neuromuscular system increasing the risk for high performance anxiety as well as muscle misuse/overuse injuries. And sadly, this has a significant impact upon the musician: it deprives them of their intrinsic joy in music-making.

During my years in Cleveland I taught courses in Optimal Performance at the Cleveland Institute of Music complete with a Biofeedback Lab where my students “lived” weekly. The course consisted of two hours lecture weekly that included visits from guests and experts in voice, hearing health, nutrition

and exercise in addition to lectures on neuro-muscular health, anxiety and “physiology 001” – beginning to understanding how everything is interconnected and the complex effects on our bodies.

In addition to my work with biofeedback for muscle use and physical alignment at the instrument, I began working with HeartMath® techniques that use science-based technology for taking charge of your life. I felt compelled to incorporate this training for musicians because studies conducted with over 11,500 people have shown improvements in mental & emotional well-being in just 6-9 weeks using HeartMath training and technology, including a 46% drop in anxiety.

Now I had the powerhouse tools to create transformation as it requires both. The mind and body are intimately linked! Just consider this: when you overuse a muscle or sprain an ankle, you have an immediate accompanying worry/anxiety/stress that begins the chatter in your brain of “will I be okay?” And, when you are anxious about an upcoming audition, lesson or performance, how do your muscles feel? They tend to brace, tighten up, become constricted.

These were the two tools that my students found in my Biofeedback Lab. My assignments for my students were to use the lab several times a week, recording tests with data in both programs and experimenting with changes in diet, exercise and finding other avenues for relaxation.

I bring you one of my student’s stories documenting his self-directed transformation through my course and his way back to playing from the heart.

Do-Hyun’s Story

In his own words: To be honest, as I was in my last semester at CIM in the beginning of the spring, and I needed to search for easier classes to fulfill my credits. One of my good friends told me about this class that he took last semester. Since I was very interested in how our physical body, and mental health work while I play the instrument – I was one of the people that are interested to find “the

best posture” or “the most optimal way for everything in practicing or in performing” – this course sounded very interesting to me and I enrolled.

Learning About the Body

I especially enjoyed learning about my muscles and how my posture affected them. And working with ProformaVision in the lab showed me immediate feedback on what was happening. It was literally eye-opening! But, most importantly, what did I learn? What were my take-aways that I carry to this day?

I liked the idea of understanding our natural and biological hand shape. I was surprised to realize that our thumb is designed to be working optimally when it comes together to meet the other fingers – like picking up a pencil. I had a habit of collapsing the large knuckles on the top of my hands, playing with flatter fingers. Through the class I learned that from that position, it was more difficult to move my fingers from the muscles inside the hand. These surround those large knuckles. Once I understood this and saw the tremendous difference it made in the muscle firings in my forearms, I began to apply this to my piano playing. Whenever there were fast passages using lots of my thumbs, I could manage those passages much more easily if I adjusted the position of my hand. And the data from the monitoring of my forearm muscles showed that they were working optimally when I did this!

In the Lab I was surprised to see that the muscle activity for my arms and shoulders fired much higher than I expected, simply because I couldn't feel it. I was amazed to see the tremendous amount of muscle activity I was using to press the keys. Through the semester, I began to understand what kind of posture alignment and hand position result in not overusing my muscles.

The graph below shows my working on learning to fire just the intrinsic muscles. I was aware of maintaining the balance in my body, arm and hand which enabled me to move fingers independently and carefully not to destroy the balance. You can see the firing of the tiny intrinsic muscles indicated by the

arrows on the graph. I should confess though, when I was very interested in the best posture of how to play the piano, my current hand shape was recreated by these exercises I did in my teenage years. It was eye-opening to see the visual feedback!

Insert example 1 here

But dauntingly, I saw that when I was actually playing the piece – graph below shows my muscle involvement of when I was playing Chopin’s double third Etude – I saw a large amount of muscle activity in my forearms. Notice the high levels of forearm muscle firings indicated by the red lines in the following graph.

Insert example 2 here

Throughout the course I learned that it is very difficult to change muscle firing patterns in pieces I have already learned and it cannot be done quickly! The same patterns and muscle firings I learned the piece with, came right back when I played it again. My goal needs to be to first apply the new posture and hand position with correct use of both my intrinsic and extrinsic muscles to new repertoire. The lasting effects of what I discovered in the lab is going to take patience and diligence! Once that is established as my new baseline, I will be able to integrate it into older repertoire.

Learning About the Mind

When Dr. Riley introduced the class on performance anxiety and taught us about its effects on our bodies, I didn’t take this seriously in the beginning (you probably remember Dr. Riley, that I was taking a nap when we had this class). But once the HeartMath techniques were introduced and I began to practice them in the Lab (I had to or I would not pass the course!) the results these techniques brought for me were invaluable and continue to be. I learned that the HeartMath technique is simple but deceptive, but requires a substantial amount of practice, focus and attention. I loved working with the

biofeedback from the screen. As Dr. Riley always said: “the body cannot lie, the body does not lie.” I could track my progress.

In the lab, because I was in a good mood most of the times, focusing on inhaling and exhaling alternatively each for five seconds was not difficult. But interestingly, practicing heart focused breathing while generating positive feelings brought many changes visually, physically, and mentally. Visually, I saw the result in changes in my heart rate coherence.

I wish to explain the term coherence here. HeartMath describes coherence as an optimal physiological state shown to prevent and reduce stress, increase resilience, and promote emotional wellbeing. Coherence is measured through Heart Rate Variability (HRV) – a unique window into the quality of communication between the heart and brain which directly impacts how we feel and perform.

What I learned in the course and that science has now shown us, is that the rhythm of our heart beat affects how we think and feel. Physically my body became comfortable and fresh, even my body temperature increased evenly. Mentally I felt the inner peace. Learning to shift our heart rhythm does increase your emotional composure and clear thinking. And, what is so amazing, is that I can do this all throughout my day. It’s not like I have to take time to go sit and meditate or take a yoga class – I now use these techniques in the moment!

When we perform in front of the audiences, we tend to make ourselves feel nervous and uncomfortable. Even the body temperature decreases. However, by working with the HeartMath techniques and making this a part of my daily life, I was happy to notice differences in my performances on stages – I was more physically and mentally comfortable. I used this technique in all of my auditions for schools and competitions this spring, and it worked extremely well. I overcame the trauma of messing up on the stage!

The graph below shows my one of the best HeartMath in the lab with the high coherence.

Insert example 3 herre

However, the graph – which I thought it would always be like that – was very honest with my high level of depressing feelings. When I had a big trouble with my one of best friends here at CIM, I was really down. I tried very hard to focus on a renewing feeling to shift my heart rate into high-coherence, but I failed to do that at first. A few days later, preparing for my senior recital, I visited the lab again and was able to shift into high coherence. I learned how to use these techniques to get out of negative feelings.

Insert example 4 here

Even though I was very nervous about my recital preparation, I was able to make it and do it way better than I was expected it to be. This has been a powerful transformation for me and one that I will continue to apply in addition to the neuromuscular changes to my physical way of playing. I have used the HeartMath techniques in preparation for all of my auditions this Spring.

And, yes Do-Hyun carried it with him and went on to become one of the winners of the 2017 Young Concert Artists' Competition! I asked him whether the HeartMath techniques he learned played a role in his audition and he answered yes. He happily reports: *And I tell everyone about this transformation all the time!* Do-Hyun is currently studying at Juilliard for his Master's degree. I am so grateful for his transformation and success.

Reconnecting our students with their heart intention and providing tools for their authentic self-discovery are lifelong gifts that bring me great joy as a teacher and coach. Transformation begins with one person at a time and through each one the effect is transmitted outward. Perhaps there is a greater message for us to consider also, looking back through the eyes of Plato and Aristotle. And that is, in their words, to rediscover music's true purpose – to restore order, balance and harmony to that which is out

of order and in chaos. Well, take a look at our society, our world, and on a closer note, the amount of overuse injury and anxiety that affect 75% of our musician population.

Maintaining resilience also demands that we tame our egos, for it is the ego that takes us out of our heart center and brings in the judgment, competitiveness and all that accompanies these. Do-Hyun, along with hundreds of my other students, continue to maintain their resilience and stay connected to their joy in performing. Special thanks to Do-Hyun for allowing me to share his story.