

Bach's Goldberg Variations: An Artistic Inspiration for Art, Science, Medicine, and Life

By Keith C. Cheng

Every morning I can, I play the theme of Bach's Goldberg Variations as a daily prayer. It reminds me of the importance of imagining and reaching for an ideal, something beautiful, but unreachable - an artistic goal. It is a reminder to maintain humility in the face of the greatness of one of the greatest composers in history, Bach, and one of the best pianists in history, Glenn Gould. It is a reminder that by combining inspiration with reason, by testing ideas with experiment, by maintaining an unwavering focus on truth, I can step closer to the ideal. I try to set ideals in the other parts of my life, whether medicine, research, or my personal life. So how did Bach's Goldberg Variations become part of my daily routine?

I am one of those lucky individuals whose life has crossed that of cellist Yo-Yo Ma. He just may be the most widely known and respected classical performer today, a musical genius with a long list of Grammy awards. What's unusual about him? He's an unbelievably down-to-earth, approachable, nice guy. So how did we cross paths?

I grew up playing the piano, routinely, for one hour per day, for my entire childhood. Suddenly, as a college freshman in Harvard Yard, I could find no satisfactory place to practice. The upright piano at the freshman union was in horrible condition, and the practice room pianos in the music department no better. The nice grand pianos at the Harvard Houses were meant only for upperclassmen living there. But then I heard about the "Music House" at the Radcliffe Quad, where my cello classmate Yo-Yo Ma lived. I made my way there one rainy weekend. As if on cue, when I arrived, I saw someone emerge from the elevator with a cello and a red raincoat. He was Asian. "Hi!" I exclaimed, "Are you Yo-Yo Ma?" He said, "Yes, and you?" I introduced myself, and asked where he was going. He replied that he was going on tour in South America, which he followed immediately by asking me where I was from. I quickly told him about my search for a piano. Before I knew it, he had reached into his pocket and pulled out his room key, handing it to me. He said, "Here, you can just stay in my room while I'm gone. My roommate Scott won't mind. Have to go! See you when I get back!" At that, he vanished into the rain. I was stunned and delighted.

I stayed for the two weeks. It was a joy to be able to practice again! I thereafter went to all of Yo-Yo's concerts at Harvard (of which there were many) and recorded many of them. I learned as much about performing music and articulating musical phrases from studying his playing as I had learned from all my formal music teachers. It was an incredible privilege and gift. Over the years, Yo-Yo has been the same, unchanged by fame and fortune, always friendly, always generous, always down-to-earth. When he was moving out of the dorm after graduation, Yo-Yo gave me his microphone stands - a precious reminder of a remarkable person.

Several years ago, I had a meeting in San Francisco, and decided to spend a couple days with another college friend (an Eye Surgeon), who was trying out new cellos and bows. While in Berkeley, we stopped to browse in a used record shop. There, I discovered a copy of Yo-Yo Ma's Artist's Choice, *Music that Matters to Him*. The final selection on the disc was Glenn Gould's famous 1955 recording of Bach's Goldberg Variations. This recording, you see, is a revelation to any musician worth his or her muster. Its brilliance and wonder come from the fact that Glenn Gould was using the piano to "sing" each of many voices as if it was the only one—and singing like an angel. When I heard it, the magic and majesty of that piece and performance hit me like a lightning bolt – it became a magnificent obsession. I did not have much time, so I had to be efficient. Just as I had been preaching to my children, I practiced slowly, perhaps just 10 or 20 minutes a day, over a month or so, note-by-note, voice-by-voice, phrase-by-phrase, and line-by-line. Successful interpretation requires both a focus on the spirit of the piece and a constant awareness of each voice. After the last note had become part of me, I gained the most wonderful sense of calm I had ever gained from a piece of music in my entire life. I revisit that calm and inspiration every day.

People often ask, "Why are there so many musicians among scientists and doctors?" Examples include past heroes such as Albert Einstein and today's human genome project leader, Francis Collins. There are some obvious reasons for this. First, a cultural respect for education is frequently associated with a respect for culture and music. Second, the analytical way of thinking and the unrelenting search for truth that characterizes the most successful of music performance also characterizes science and medicine. Third, the same kind of discipline essential to achievement in music is essential for success in science. For me, it goes one step further. The best music (and the best science, the best medicine, and the best life) comes from imagination, creating a beautiful ideal, and pursuing it. We can only get closer to the ideal by shooting for it. "How do you have time for music?" people ask. My answer is that it is part of me, just like breathing and eating and sleeping. It frequently does not stop going through my head all night or all day. It is a guiding force in my life. The Goldberg Variations are my latest way to inspire and ready me for my day.