## Practicing with the Brain in Mind

MTNA Pedagogy Saturday – Wellness Track Saturday, March 16, 2019

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The premise of George Kochevitsky's 1967 book, *The Art of Piano Playing: a scientific approach*, was that practicing happens primarily in the central nervous system – the brain and spinal cord. Kochevitsky's ideas didn't gain much traction at the time, but neuroscience research over the past twenty-five years has made the brain's role in motor skill learning very clear. While our muscles are making the movements to create sound, our brains control the muscles and every other aspect of making music. Thousands of studies in multiple scientific disciplines, many including brain imaging, have shown researchers the vast connection of neural networks in the brain that make it possible to make music. Having even a rudimentary knowledge of how the brain wires itself as we learn can help us learn more efficiently and help us understand the basis for performance anxiety and movement-related injuries.

## This session will cover:

- How the brain wires itself and how it changes as we learn *neuroplasticity*
- Neuroplasticity's role in learning and memory
- The impact of neuroplasticity on performance anxiety
- Neuroplasticity and movement-related injuries
- Neuroplasticity and disabilities

I blog about neuroscience and music at <u>The Musician's Brain.</u> Prior to this session, I will post an expanded handout on the blogsite with embedded links to articles, books, websites, and videos. Please go to the site, click on **Links** in the menu, and scroll down to **MTNA 2019**. The page that opens will be a more complete handout for this session. Please feel free to contact me if you have any questions, either through the blogsite or at <u>svard@bucknell.edu</u>

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