Using time wisely: The neuroscience of music practice

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Surprising research findings about how the brain encodes and refines skill memories not only make the process of music learning more understandable and interesting, but also suggest ways to make practice a more positive and productive experience for musicians. We have conducted systematic investigations of music learning and procedural memory consolidation over the past 8 years.[1] Our own findings and the research of others over the past two decades have revealed important insights about the formation, refinement, and retrieval of skill memories. In this session, we explain ways to set up effective practice for learners at all levels of experience and expertise, combining information from neuroscience, cognitive psychology, and observations of expert musicians' practice.

As part of our session we present recorded examples of effective music practice and discuss the connections between strategies that work and the underlying mechanisms of the brain that explain their function in human memory. We also discuss the role of self-assessment and problem-solving in practice and illustrate ways in which even young learners can define practice in terms of matching musical intentions to outcomes. In particular, we emphasize how practice should integrate all components of music production, including expressive inflection.

Materials related to the clinic are available on line at

https://cml.music.utexas.edu/online-resources/new-redirectorpage/using-time-wisely-the-neuroscience-of-music-practice/

Published references

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