

Fine tunes may fine tune the brain

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Music training may bring about biological changes in the brain that could enhance music processing and even transfer to other domains. In a Perspective in Nature Reviews Neuroscience, Nina Kraus and Bharath Chandrasekaran explore the available evidence and call for improvements to music training in schools.

Most musical virtuosos have spent many long hours practising their instrument since a young age. During training, musicians learn to attend to the fine-grained acoustics of musical sounds, specifically the pitch, the timing and the timbre. Research suggests that the training may lead to structural and functional changes in the brain. This neuroplasticity improves music processing and the changes may also improve other auditory skills, such as speech and foreign language processing.

Trained musicians are better able to deal with the challenges of language learning and other everyday listening tasks. They become better at extracting statistical regularities from an auditory signal and so are able to listen more effectively in challenging listening environments – in a noisy classroom, for example. In short, musicians may have certain enhanced cognitive and sensory abilities compared with non-musicians.

The authors therefore call for a need to improve the quality and quantity of music training in schools. They also highlight the need for longitudinal studies on the effect of children who have studied music through the school curriculum rather than via private lessons and whether different types of music training are more beneficial – for example, the Suzuki method, which focuses on aural learning over sight reading.

Author contact:

Nina Kraus (Northwestern University, Evanston, IL, USA)

Tel: +1 847 491 3181; E-mail: nkraus@northwestern.edu

PRESS CONTACTS...

From North America and Canada

Tel: +1 212 726 9231; E-mail: n.afsarmanesh@us.nature.com

From Japan, Korea, China, Singapore and Taiwan

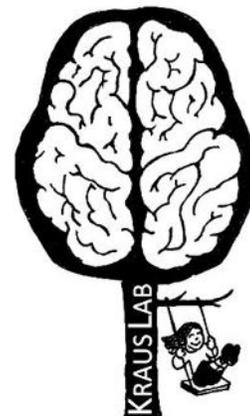
Mika Nakano, Nature Tokyo

Tel: +81 3 3267 8751; E-mail: m.nakano@natureasia.com

From the UK/Europe/other countries not listed above

Rebecca Walton, Nature, London

Tel: +44 20 7843 4502; E-mail: r.walton@nature.com



www.brainvolts.northwestern.edu