



“This is your brain on music”?

Prof. dr. Evert Bisschop Boele | 16-1-2019, Beta Beats, Amsterdam

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“Professor Sarah Wilson from the School of Psychological Sciences at the University of Melbourne.” YouTube https://www.youtube.com/watch?v=ISvY_ollwMM, 15-1-2019

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When the music's over. Does music skill transfer to children's and young adolescents' cognitive and academic skills? A meta-analysis



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ABSTRACT


Music training has been recently claimed to enhance children and young adolescents' cognitive and academic skills. However, substantive research on transfer of skills suggests that far-transfer - i.e., the transfer of skills between two areas only loosely related to each other - occurs rarely. In this meta-analysis, we examined the available experimental evidence regarding the impact of music training on children and young adolescents' cognitive and academic skills. The results of the random-effects models showed (a) a small overall effect size ($\bar{d} = 0.16$); (b) slightly greater effect sizes with regard to intelligence ($\bar{d} = 0.35$) and memory-related outcomes ($\bar{d} = 0.34$); and (c) an inverse relation between the size of the effects and the methodological quality of the study design. These results suggest that music training does not reliably enhance children and young adolescents' cognitive or academic skills, and that previous positive findings were probably due to confounding variables.

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“These results suggest that music training does not reliably enhance children and young adolescents’ cognitive or academic skills, and that previous positive findings were probably due to confounding variables.” (Sala & Gobet, *Educational Research Review* 20 (2017), p. 55.)

Educational Research Review, <http://dx.doi.org/10.1016/j.edurev.2016.11.005>

Lost in translation? Neuroscientific research, advocacy, and the claimed transfer benefits of musical practice

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ABSTRACT

In recent decades there has been a proliferation of neuromyths based on oversimplifications and over-generalisations of research findings. As part of a larger project that examines the societal impacts of the arts and arts education practices, this interdisciplinary collaborative study examines the translation of recent neuromusical research into the public domain, one of the main generators of neuromyths. We review the claimed benefits of musical engagement to other domains, and the ways that researchers discuss these claims. To accomplish this, we first provide a thematic analysis of the kinds of claims that are made in research texts. We analysed 76 review articles published between 2006 and 2016 that both concern brain imaging studies in humans and involve music. The analysis highlights the ways that researchers qualify the potential benefits of music. Second, we explore the ways that neuroscientists report their results to the public and the ways that these results are taken into public discourse. In order to do this we analysed the homepages of the researchers who published at least 2 review articles in our dataset, focussing on the media linked to their homepages. We also explored over 100 websites that mention the benefits of music and also refer to brain imaging research. These overviews allow us to show that the same criteria commonly applied in research are almost never applied in public discourse. We conclude that there is an ethical imperative for researchers to take care in presenting the research results of brain imaging studies to the larger public, and furthermore argue that there is an ethical obligation for researchers to speak out against misuse of research findings.

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“We conclude that there is an ethical imperative for researchers to take care in presenting the research results of brain imaging studies to the larger public, and furthermore argue that there is an ethical obligation for researchers to speak out against misuse of their findings.” (Odendaal, Levänen & Westerlund, *Music Education Research* (2017), p. 1. <https://doi.org/10.1080/14613808.2018.1484438>.)

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