

Are kids who take music lessons different from other kids?

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(Medical Xpress)—Research by U of T Mississauga psychology professor Glenn Schellenberg reveals that two key personality traits – openness-to-experience and conscientiousness—predict better than IQ who will take music lessons and continue for longer periods.

Another intriguing finding is that when personality traits and [demographic factors](#) like parents' education are considered, the link between cognitive ability and music training disappears.

Schellenberg's study calls into question the widely held view that music makes kids smarter. "The prevailing bias is that music training causes improvements in intelligence. But you can't infer causation simply

because children with music training have higher IQs than children who haven't had music training," says Schellenberg, a [cognitive psychology](#) specialist in the Department of Psychology.

The research paper, "Music training, cognition and personality," is published in a recent issue of *Frontiers in Psychology*.

Ever since a 1993 University of California study claimed that people performed better on tests of [spatial abilities](#) after listening to music composed by Mozart, the idea that music makes you smarter has been embedded in the public consciousness. Moms have been playing "Baby Mozart" CDs to give their kids an intellectual edge, and researchers have been studying and reporting positive associations between music and intelligence.

But Schellenberg's previous research has shown that the "[Mozart effect](#)" is a myth. People do just as well on spatial tests after listening to a narrated story as a Mozart sonata, and in both cases better than after sitting in silence. "Their performance is better because the music and story are more arousing and enjoyable, and the effect has little to do with Mozart in particular or music in general," he explains.

In this study, Schellenberg gave the theory that music training makes kids smarter a reality check by asking whether pre-existing differences in personality could explain why musically trained children have substantially higher IQs and perform better in school than other kids. "I wanted to stop this madness of making exaggerated claims about the intellectual benefits of music training," he says.

In separate groups of 167 10- to 12-year-olds and 118 university undergraduates, he looked at how individual differences in cognitive ability and personality predict who takes music lessons and for how long. The study measured the Big Five personality dimensions: openness-to-

experience, conscientiousness, agreeableness, extraversion and neuroticism.

Among the children, openness-to-experience and conscientiousness predicted the likelihood of taking music lessons and persisting, while openness-to-experience was the best predictor of involvement in music lessons. Those personality traits also helped to explain why musically trained children tend to earn higher grades in school than peers without music training, and do better academically than would be expected from their IQ scores.

Among undergraduates, those with higher levels of openness-to-experience studied music longer during childhood and adolescence.

Schellenberg's findings highlight that there are significant pre-existing personality differences between kids who take music lessons and those who do not. "The differences in personality are at least as important as cognitive variables among adults, and even more important among children in predicting who is likely to take music lessons and for how long," he says.

His research raises questions about virtually all previously reported research correlations between music training and [cognitive abilities](#) that failed to account for differences in [personality traits](#). "Much previous research may have overestimated the effects of music training and underestimated the role of pre-existing differences between children who do and do not take music lessons," he says.

"Children who take [music lessons](#) may have relatively high levels of curiosity, motivation, persistence, concentration, selective attention, self-discipline and organization," says Schellenberg. While he acknowledges that [music training](#) may offer a slight cognitive benefit, he suggests that ambitious parents should not make kids learn a musical instrument solely

for any expected intelligence benefits.

Learning a musical instrument is worthwhile for the musical skills and knowledge that a child will develop, and for the enjoyment of playing music. "Nobody says you need to study biology because it increases your reading ability. Like all the arts, music is one of those things that makes us human and is worth doing in its own right," says Schellenberg.

Provided by University of Toronto Mississauga

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