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LOCAL

Music lessons build brainpower

School districts cutting arts programs should first consider that playing an instrument activates neuro-pathways to facilitate learning.

By Steve Lopez
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To those who suggest, as many do, that my brain doesn't seem to function very effectively at times, I know exactly what's wrong with me.

And I blame my parents.

Never during my upbringing did I hear the words that so many millions of children dread:

"You're going to take piano lessons, and you're going to like them."

My parents never played any instruments, and the only music in my house was TV-show theme songs. Sure, there were music classes in my Northern California schools, but with no encouragement or curiosity, I missed the boat.

So what does any of that have to do with my limited brainpower?

A lot, judging by a growing body of research, and by some conversations I had recently at Santa Monica High. All of which I bring up in connection with layoff notices received by 10 music teachers in the Santa Monica-Malibu Unified School District.

Measure A on the May ballot would add \$198 per parcel each year to local property taxes to make up for state funding cuts, which have cost the district \$10 million in each of the last two years. In the short run, the money would be used to save 70 teaching jobs district-wide, including the 10 music positions. It would also keep class sizes from shooting up. But it needs two-thirds support for passage, which will be no cinch in tough times.

All of which takes me back to April 14, when David Robertson, a Santa Monica High alum (1976), returned to campus, made a pitch for Measure A and was treated like a returning hero.

Robertson, one of the brightest conductors in the world of classical music, was in town to lead his St. Louis Symphony Orchestra in a Disney Hall performance that night. But he stopped by SaMo High first to hang with members of the school's premier orchestra and hear them play Tchaikovsky's Symphony No. 4 and Bernstein's Overture to "Candide."

Robertson was impressed, but not surprised. He told the students that in all his worldly travels, he's never seen a public music program as good as the one in the Santa Monica-Malibu Unified School District, where he sang in first grade, began studying trumpet in fourth grade and played in an orchestra by 6th grade.

"No other program compares," Robertson said.

In the audience, teachers and parents told me about students of all income levels who have prospered in the program and gone on to great universities, some studying music and some not. Also in the audience was a friend of mine, L.A. Philharmonic violinist Robert Gupta, a New Yorker, who, amazingly, joined the orchestra in 2007 at the age of 19. And here's where the brainpower angle comes in.

High school music instruction isn't threatened in Santa Monica just yet, but the elementary school program could take a big hit, which reminded me of Gupta's theory on how studying music at an early age can develop the brain. And by the way, he's no slouch on the subject. Gupta graduated from college with a pre-med biology degree at 17 and two years later also had a master's in music.

"The corpus callosum is enlarged" when you study music, he explained to me at Santa Monica High, saying the expansion of that pathway increases communication between the two hemispheres of the brain.

We were backstage by then and Robertson chimed in, saying the visual, audio and motor skills learned in music build brainpower.

"Any time you learn, what you're doing is building a network that will fire automatically," said the conductor, explaining how a musician travels along a C-major scale without rethinking every step in the process.

This kind of development is particularly helpful at an early age, said Gupta, because a child's brain has many more neurons and is far more active than an adult's. That's why it's easier to learn music, or language, as a kid, particularly if the brain gets lots of exercise.

UCLA professor James Catterall, whose specialty is the connection between artistic learning and academic and social development, suggests that learning music, in addition to developing the parts of the brain that are tied to emotion and empathy, can activate neuro-pathways and facilitate learning in other areas.

More specifically, said Catterall, who happens to be a cellist, singing and playing instruments over the course of several years "can lead to better spatial reasoning skills," and the benefits can "spill over somewhat to things like mathematics and language."

And yet across the country, if not on L.A.'s Westside, music and other arts instruction are often whacked or cut disproportionately when budgets are squeezed. They're seen as appropriate luxuries in good times, but otherwise superfluous and expendable, despite evidence to the contrary.

In Santa Monica and Malibu, lots of kids will have access to private music lessons regardless of what happens in the public schools. But many others won't. And when you chip away at the foundation of a great community tradition, Robertson said, you diminish the experience for everyone at every level.

"Music is a higher revelation than all wisdom and philosophy," Beethoven said.

But I think I'll give the last words to Nietzsche:

"Without music, the world would be a mistake."