

backstage pass [ INSIDE FESTIVAL OF THE ARTS BOCA ]

## Daniel J. Levitin

THIS BEST-SELLING NEUROSCIENTIST ALWAYS HAS SONGS IN HIS HEAD.



Then again, most people are not Daniel I. Levitin, who has enjoyed enough careers for several lifetimes over the course of his 56 years. The San Francisco-born son of a professor father and a novelist mother, Levitin spent his 20s in the music business, working as a player, producer or engineer with artists such as Jonathan Richman, Mel Torme, Roseanne Cash and David Byrne. Along the way, he discovered a few things about the way our brains interpret sound and found that he might be better suited for academia than rock 'n' roll. His resulting book, This is Your Brain on Music, combined his passions for music and neuroscience, and it has become a definitive text on the neuroanatomy of musical expectation, emotion, listening and performance.

"Your Brain on Music" also is the name of Levitin's presentation on March 10 at Festival of the Arts Boca, which will be structured as a musical/literary dialogue with the festival's music director, Constantine Kitsopoulos (for tickets, call 561/368-8445).

"I'm curious to know what he does to try and evoke emotions from musicians and how he tries to get into the heads of composers to figure out what they intended," Levitin says. "I'd like to know how he does what he does, and I can talk a little bit about what I think is going on in the brain when players play and composers write and listeners listen."

## How far back does music stretch, evolutionarily?

The oldest human-made artifacts that are

found in burial sites are musical instruments. We've even found musical instruments that appear to predate humans and are associated with Neanderthals. It goes back 50,000 years.

## This is Your Brain on Music is subtitled "The Science of a Human Obsession." What do you mean by "obsession"?

To somebody who doesn't get music—to the proverbial Martian who comes down and is not musical and sees us engaging with music—it does seem to be an obsession. We spend a lot of money on it. We spend a lot of time surrounded by it. It's in more places than the average person realizes. It's piped into shopping malls and bus stations and elevators. It accompanies ads. So just trying to be objective about it, it seems like we are a particularly musical species, and calling it an obsession is not far off the mark if you're trying to be objective. I don't mean it in a pejorative sense.

## Why do some songs get stuck in our heads?

We don't really know. I think it's because for most of our history as human beings, we didn't have written language. Writing is only 5,000 years old. So for roughly 45,000 years, human beings were doing what they do but needed some way of preserving information.

I think music became one of the chief ways that they did that, because the mutually reinforcing cues of rhythm and meter and rhyme constrain the words that can fit. So it would be easier to memorize a song that had important information in it, like where to get your water, what plants are edible, things of that nature.

The fact is, we still use music to encode information. Most children learn the alphabet from a song. And they learn to count from a song. So even today, in a hyperliterate culture, preliterate humans—that is children of a certain age—are still learning information

through song. I think songs get stuck in your head because they evolved to do so.

Do you hope that people, by reading your books and listening to your presentations, will change the way they listen to music?

I don't know that I hope they change the way they listen to music, but I've heard a lot of people say that after reading the book or hearing a talk by me or my colleagues, that they feel a deeper connection to music; they feel a sense of appreciation for understanding a little bit about how it works. Without demystifying it, they feel that things start to fall into place and make sense about their relationship to music.

Most of your industry experience seems to have been in the pop/rock world. Many people have perhaps a snobbish perception that classical and jazz have more intellectual validity than rock, that babies should be listening to Mozart in the womb, and not the Sex Pistols, for instance.

It is just snobbishness. There's no experimental evidence that listening to one kind of music versus another makes you smarter or more well-adjusted.

There's a little bit of evidence that suggests listening to music with violent lyrics, like gangsta rap, alongside violent video games and violent television programming, leads to more aggressive behavior. But it's not the genre of the music, per se. There's certainly heavy metal and rap music that's not talking about killing people. So there's nothing about the canonical three chords of rock 'n' roll or the distorted guitars of heavy metal that are going to corrupt the youth of America.



FOR MORE OF OUR INTERVIEW WITH DANIEL LEVITIN, VISIT BOCAMAG.COM.

