

Vanaski: Disney's musical formula speaks to kids — to some parents' dismay

By [Nafari Vanaski](#)

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I had always thought that my sister-in-law was on good terms with us.

But over the Christmas holiday, she arranged for our children to watch the movie "Frozen." Three times in one night, apparently, with their cousins. She also gave them the DVD to take home.

Though the DVD has unfortunately been "lost," both children more than two months later will randomly belt out at any point the movie's hit song, "Let It Go." One of these children, it should be noted, can't even really talk yet.

If you have any association with small children, you know all about the Idina Menzel song from the hit movie.

But does anyone else think it's kind of odd that when Disney animated movies are released, they almost always come with a catchy song you just can't shake? "The Circle of Life?" "Beauty and the Beast?" "Under the Sea?"

It seems that Disney has discovered the formula to an addictive song and exploited it to sell movies, dolls, books and — most importantly — drive parents insane.

To test this theory, I asked Rich Randall, an associate music professor at Carnegie Mellon University, one question: "Why is this happening to us?" Music, he replied, is something our brains are programmed to like, and there are certain patterns that can definitely get the endorphins pumping.

"It hits the reward center that's activated when we predict where something is going to go," he said. But music can also hit that pleasure center when something happens in a song that is unexpected.

"Let It Go" hits both of those notes, Randall said. It starts slowly, in a minor mode in a low register, which evokes sadness, he said. Then it shifts into a relatively major mode, which can create a sense of lifting up. This is pretty normal in Western music, apparently. "Show tunes do this all the time," he said.

But the unexpected part of the song is that about two-thirds of the way through, the song switches into a different key, often called "trucker's modulation" because it's often used in country music. "It's like a surprise, and also a musical puzzle that's been solved," Randall said.

Because a child's brain is "a blank slate," musical tastes "are more dynamic," he said. Another factor in the song's success is the fact that it kicks off a scene where a character discovers she has a special super power — turning things to ice.

Randall describes this effect as similar to "taking ice cream and putting fudge and whipped cream on it."

Is Disney just getting lucky here? If so, what's to keep others from tapping into this formula?

"You have to be at the right place at the right time to have this," Randall said. Lots of people do it, he noted, but it doesn't always work.

I wish it didn't work at my house. At all.

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