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ESSAY

Do You Hear What I Hear?

Holiday music is inescapable. Daniel J. Levitin on the ancient drive to listen to familiar songs, the psychological effects of music and why 'Little Drummer Boy' is so annoying.

By [DANIEL J. LEVITIN](#)



Tim Bower

December. Joy, goodwill toward men, long lines, the unwanted wet kiss from a drunk co-worker at the office party. Along with the candy canes and mistletoe, music will be there in the background wherever we go this month, as sonic wallpaper, to put us in the right festive mood. No holiday music is more annoying than the piped-in variety at shopping malls and department stores. Can science explain why the same song we enjoy singing with relatives or congregants drives us to visions of sugar-plum homicide when it blares across the public-address system Chez Target?

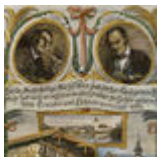
Our drive to surround ourselves with familiar music during life cycle events and annual celebrations is ancient in origin. Throughout most of our history as a species, music was a shared cultural experience. Early Homo sapiens coupled music with ritual to infuse special days with majesty and meaning. Before there was commerce, before there was anything to buy, our hunter-gatherer ancestors sat around campfire circles crafting pottery, jewelry and baskets, and they sang. Early humans didn't sit and listen to music by themselves -- music formed an inseparable part of community life. So much so, that when we sing together even today, our brains release oxytocin, a hormone that increases feelings of trust and social bonding.



Associated Press

Strolling carolers sing Christmas songs at a Denver mall. Researchers have found that music can affect buying behavior.

Holiday Notes



Lebrecht Art & Music

Known in English as "Silent Night," "Stille Nacht" was written by Austrian priest Joseph Mohr and Franz Gruber. They performed the song at a Christmas mass in 1818 accompanied by guitar, and the tune later spread across Europe.



Georgia Historical Society

"Jingle Bells," copyrighted in 1857 by James Pierpont (uncle of J.P. Morgan), was originally not a holiday song at all. It was written for a Thanksgiving church service, as legend has it, and was so popular, it was performed again at Christmas.



Everett Collection

Several well-known tunes emerged from films of the 1940s and '50s. Irving Berlin's "White Christmas," sung by Bing Crosby in the 1942 "Holiday Inn," has become the most recorded holiday song to date, with more than 500 versions.



Gene Autry Entertainment

The "Singing Cowboy" Gene Autry initially balked at recording "Rudolph the Red-Nosed Reindeer," thinking it didn't fit his image. His wife convinced him otherwise, and the 1949 song became his biggest seller.

Music is piped into public places in a cultural echo of shared ritual and ceremony. As advertisers have long known, music can help to oil the wheels of commerce. Songs can stick in our heads, giving the purveyor of a catchy jingle many more minutes of air time than was originally paid for. Whether our brains are reminding us that "When the holidays come along, there's always Coca-Cola" or that maybe we haven't "driven a Ford lately," the jingle rattles around in our synapses in a sometimes endless loop -- a commercial played out in the most private of venues over and over again.

The fact that music does get stuck in our heads -- the Germans call these *Ohrwürms*, or "ear worms" -- is a key to understanding how human nature evolved. Evolution selected music as an information-bearing medium precisely because it has this stick-in-your-head quality; all of us are descended from ancestors who used music to encapsulate important information. For tens of thousands of years before there was writing, information -- such as which plants were poisonous or where to find fresh water -- was encoded in song. Early Homo sapiens realized that setting words to music made it easier to remember them; the internal constraints of music, the accent structure and meter, not to mention poetic elements such as alliteration and rhyme, made it more difficult to forget the words. Many of us have had the experience of forgetting the words of a song, but we can usually recreate the missing words because there simply aren't that many that will fit. So songs are memorable because they are meant to be, no matter how irritating the alphabet song can become to parents of infants or how likely you are to strangle the next throat that warbles pa-rum-pum-pum-pum.

But if evolution is so smart, why do holiday carols become annoying? When we like a piece of music, it has to balance predictability with surprise, familiarity with novelty. Our brains become bored if we know exactly what is coming next, and frustrated if we have no idea where the song is taking us. Songs that are immediately appealing are not typically those that contain the most surprise. We like them at first and then grow tired of them. Conversely, the music that can provide a lifetime of listening pleasure -- whether it's Bruckner 1 or

Zeppelin II -- often requires several listenings to reveal its nuances. And the best music offers surprises with each new listening.

Related Article

Sound Research: Benefits of Listening to Music

Holiday mall music is irritating because the sort of music that appeals to people of disparate backgrounds and ages is going to tend to be harmonically unsurprising. Unwanted sound in general (think of the incessant drip-drip-drip in the night while you're trying

to get to sleep) or unwanted music in particular is not waterboarding, but it is a kind of torture. Don't forget, the American military drove Manuel Noriega from his compound by blasting him 24/7 with AC/DC and Van Halen.

Whether it's dogs barking "Jingle Bells" or Hannah Montana Rockin' Around the Christmas Tree, this piped in music is the auditory equivalent of trees and tinsel. Consumer research has shown that music, when it isn't torture, indeed has a significant effect on buying behavior. In a 1999 study, the experimental psychologist Adrian North and his colleagues from the University of Leicester played either German or French classical music in the background at a wine shop. Sales of French and German wines increased when the music from their respective countries was playing.

Another study by the researchers in 2002 played different styles of music -- classical and popular -- and found that restaurant patrons spent on average 10% more per meal when classical music was playing, and more on after-dinner coffee. The classical music created an air of sophistication, reflected in the more sophisticated (higher priced) entrées chosen by the diners.

Retailers this holiday season aren't the only ones trying to influence our mental state with music. Most of us do it at home, too. The average American spends more than four hours a day listening to music, and surveys reveal that we use music to regulate our moods, to differentiate activities such as winding down from gearing up, and to comfort us when we're feeling blue or misunderstood.

It is natural to wonder, if music has played as important a social role as evolutionary biology suggests, what might be the effect of the great and apparent *de*-socialization of music we are seeing today with the proliferation of personal music players (or what Lisa Simpson calls the "MyPod"). People are spending more time listening in the privacy of their own minds -- did you notice all the earbuds on athletes at the Chinese Olympics? Maybe earbuds are the real Scrooges, cutting us off from others' joy.

We are living in a time of unprecedented nonsocial access to music. The average 14-year-old will hear more music in a year than his great grandfather would have in a lifetime. Virtually every song ever recorded in the history of the world is available on the Internet somewhere. Thanks to intrepid musical explorers, even rare, indigenous and pre-industrial music is now available. Cultures that have been cut off from industrialization and Western influence have had their music preserved, and by their own accounts, it may have been unchanged for many centuries, giving us a window into the music of our ancestors.

The diversity of our musical legacy includes music made on instruments believed to be thousands of years old and on instruments invented just this week; music played on power tools; an album of Christmas carols sung (well, croaked) by frogs. So although we listen alone, we are listening to more music and it is more diverse. It's hard to find fault with digital and online media that put us more in control of what we listen to than we have at, say, the shopping mall. And on the social side, the growth of peer-to-peer (P2P) and other file-sharing *communities* has restored the communal, human joy of sharing and discovering music we like with others of similar mind and taste.

Holiday tunes are supposed to get us feeling at least a bit religious or spiritual, aren't they? Historically

they have worked well in this way. Music's role in religious and spiritual ceremonies may be as old as religion itself. Although human religions differ markedly from one another, all religious rituals are characterized by a demarcation of time and place -- on this day we stand here in this special spot, or interact with sacred objects that we don't normally interact with -- and by the reciting of music or text that is designed to take us out of ourselves, out of routine, and uplift us with higher thoughts. Ritual and religious music helps to differentiate *this* day or activity from the *rest* of our secular activities. Because we tend to hear these songs only during this season, they serve as a unique memory cue, unlocking a neural flood of memories related to the holidays.

So give that guy from sales down the hall a break if he gets too friendly at the office party. Holiday music is signaling that this is a different time and place. It's sonic mistletoe. Maybe all he needs is some good file sharing.

Daniel J. Levitin, formerly vice president of 415/CBS Records, is a psychology professor at McGill University and author of "The World in Six Songs."

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