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## [The Science Behind Why Pop Music Sucks](#)

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Unless you're a dedicated listener of Top 40 pop music, you've probably found yourself at one point or another complaining about the current state of mainstream music and how it's too simplistic and unoriginal. Well you might be surprised to find out that this is more than just an opinion. There's actually scientific evidence to back your hypothesis up.

Something else that we have been saying here at Saving Country music for years is that people can enjoy good, creative, complex, and thought-provoking music better than they can most pop music—that the experience of listening to music with a more artistic focus can be more fulfilling, more enjoyable, and longer lasting than the short-term sugar rush of a catchy, but fleetingly-potent simplistic beat set to inane, repeating lyrics.

For years we've known that listening to classical music can boost intelligence in the short-term, aka the "[Mozart Effect](#)." But intelligence and enjoyment are two different things. Though there has yet to be a scientific study directly linking the complexity of music to a more enriching musical experience, many recent studies on the effects of music on the brain have given us insight into why the loss of artistry and variety in music may mean a less fulfilling musical experience, and thus, a less fulfilling life.

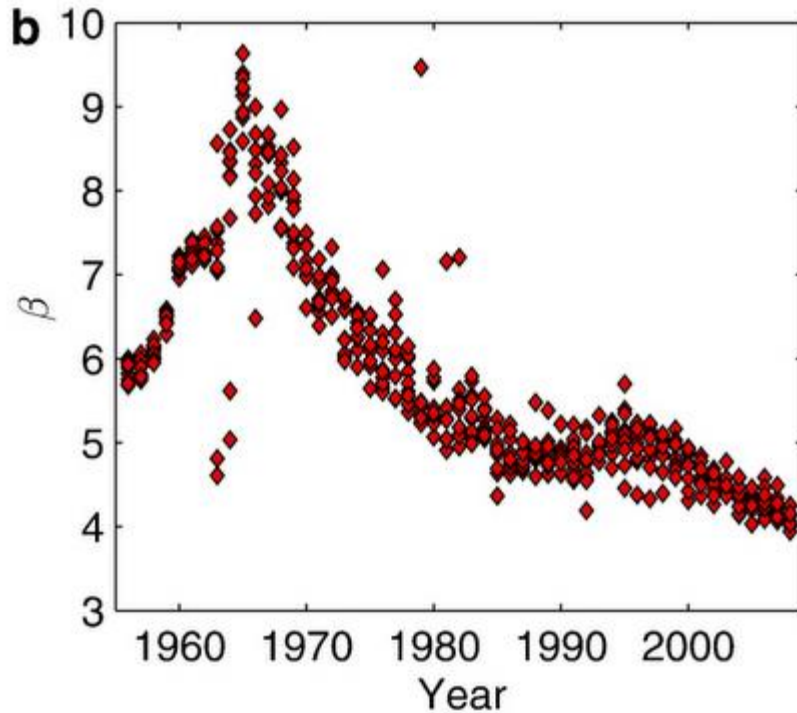
So let's take a deeper look at the science. And I promise, we'll try to keep it as simple as possible.

### **Music Is Getting More Simplistic & Less Diverse**

Of course this is what many curmudgeoney music listeners have been saying for years, but now there's actually scientific evidence to back it up. A project called the [Million Song Dataset](#) initially launched in 2011 by Columbia University set out to aggregate metadata for a million contemporary popular music tracks and use it to discover trends and other useful information. By using "timbre" to distinguish and grade songs, the study found that on a scientific level, music is becoming less diverse.

From [Scientific Report's interpretation](#) of the Million Song Dataset:

**This evidences a growing homogenization of the global timbral palette. It also points towards a progressive tendency to follow more fashionable, mainstream sonorities...** These rather low rank correlations would act as an attenuator of the sensation that **contemporary popular music is becoming more homogeneous**, timbrally speaking. The fact that frequent timbres of a certain time period become infrequent after some years could mask global homogeneity trends to listeners.



**Simple Explanation:** Songs are sounding more and more similar to each other every year, and relying on the same, simplistic structures and tones. As the red diamonds trend down, so does the diversity in popular music. As can be seen in the graph, music diversity peaked in the mid 60's to the early 70's.

**What does this mean?** Two things: 1) That from a scientific standpoint, music is trending more toward the [mono-genre](#), where all popular music sounds the same. 2) As much as contemporary music stars may insist that music needs to “change” or “evolve,” this study shows that modern music is actually devolving, and lacks fundamental differences between songs, and even genres. This study also may explain the nostalgia many music listeners feel for the “classic” era of popular music, whether that music is rock, country, or even pop music. Music of the past has more diversity, and so it holds more appeal. But why?

### **Dopamine and ASMR: Why Our Brains Like Music**

Not to demystify music completely, and there's so much we still don't know, but the reason we enjoy music is because it causes chemical and neurological reactions in our brains that make us feel good. In fairness, some of these positive chemical reactions can happen with simplistic pop music too, but these reactions tend to be shorter lived.

The two most well-known and studied reactions to music on our brains are dopamine reactions, and ASMR reactions.

## Dopamine Reactions

Dopamine is the dope of the brain. It is a basic organic chemical that works as a neurotransmitter and “rewards” your body for certain behaviors. Many things that humans do to “feel good” break down to basically fooling the brain into telling the body to release dopamine. For example, both cocaine and methamphetamine cause the brain to release dopamine, so you’re actually not getting high on the drugs themselves, but the reaction to them by your body. The same thing happens when you eat “comfort food” that is high in fat and calories, or sweets. Sex and physical contact also cause a dopamine response, and so does music.

Those “euphoric” moments you feel when listening to music, or the sense of comfort you might feel after listening to a song, even one with a dark or negative story, are many times the fault of dopamine. But I’m sure you’ve noticed that the more you listen to a song, the less potent it becomes, or that sometimes you must listen to a song a number of times before you begin to feel its effects. In the first instance where a song becomes worn out, this is because just like drugs, our bodies build up a tolerance to the particular dopamine reaction a song will give our brains. Walking away from that song for a while and returning might see the return of that feeling of euphoria. As for why it takes other songs time to warm up to your brain, that is because your brain has yet to recognize those euphoric moments inherent in the song. Burying the dopamine triggers in a song through complexity of the composition is a way to prolong the potency of a song’s dopamine reactions.

Have you ever wondered why songs that you immediately like wear out quicker, and songs it takes some time to warm up to you end up liking for longer? This is the “sugar high” or short-term enjoyment that pop music can give the brain. But music that is more complex or “heady” can enact a dopamine response that is longer lasting; that stays with you well after the song is over. Ever wondered why a song gets stuck in your head? Because just like drugs, dopamine can be addictive, and is craved by the brain.

## ASMR or Autonomous Sensory Meridian Response

This is a very new side of studying how music effects the brain, and may be somewhat linked to dopamine eventually. But where dopamine is a chemical that can be released by different parts of the body like the immune system or the digestive system, ASMR seems to be more neurological in nature.

Also called “brain orgasms,” ASMR reactions can come from very simple things like the sound of a human whisper. A [recent article](#) in the Houston Press quotes researcher Andrew MacMuiris describing ASMR reactions as, “...a tingling sensation on the scalp, down the spine, and even in other areas of the body, such as the limbs. This is also accompanied by feelings of euphoria and relaxation.”

Apparently each individual’s reactions to ASMR triggers can be different, and can even be enhanced when the listener focuses in on the triggers when they’re listening to music. This

makes for the possibility that an educated, more attentive music listener could gain more enjoyment from a song than a passive listener. Like an art appreciation class that teaches someone what to look for in visual art to understand its beauty or importance, knowing what to listen for in music can also make for a more pleasurable and fulfilling experience. *“It’s emotional for me,”* explains Annie Long in the Houston Press piece on ASMR’s. *“If a song evokes a strong emotion, I get mad tingles. It definitely enhances the music, like you can feel the music in you instead of just hearing it.”*

There is a similar phenomenon, or possibly the same phenomenon to ASMR known colloquially as “frisson.”

**Simple Explanation:** The chemical and neurological reactions in the brain that music stimulates can be enhanced when the music is both composed with more complex “euphoric” moments, and when the listener is educated or experienced in what to listen for in music.

So what exactly stimulates all of these chemical and neurological “rewards” in the brain, and why is music that is more artistic or complex simulate more of these positive anatomical reactions?

## **Music Structure & The Minor Key**

To keep it as simple as possible, all Western music is made up of a system of chords and notes that are arranged into structures that build tension and resolution into music. Think of the old “Do-Re-Me-Fa-So-La-Ti-Do” but think of it as the numbers 1 through 8, with each number symbolizing a specific chord. The way musician’s arrange their songs, they use this system of chords to create tension in the music, and then resolve it. Though you may not perceptibly hear this when you’re listening to a song, this chord system is vital to keeping your ear engaged with the music. When a chord resolves, usually at the end of a verse, it gives the mind and body a pleasurable feeling.

Where artistry comes in is how a musician uses these chords in unique, unusual, or unpredictable ways. Remember above when we were talking about dopamine and how the body can build up a tolerance to it? This is what can happen when a song is too predictable or cliché. There is no magic or “soul” to it because the composer is using the same tricks that have been used many times before. That is why to some educated or active music listeners, pop music, however catchy, has no effect on them, while complex, artistic, or unique music can sound fresh and new, and stimulate those positive chemical reactions in the body, and in a more potent, and longer-lasting manner.

But none of this is considering how a listener might be able to identify with the lyrics of a song, with either a personal reaction of nostalgia or empathy with what is being said through the music. These things can add yet another layer of enjoyment.

## **The Minor Key**

Simply put, songs in the major key sound bright and happy, and songs in the minor key sound dark, and this is universally-recognized by the human brain. This doesn't always take into consideration the lyrical content. Some minor key songs can be happy, and vice versa. But the reason we can listen to songs that make us sad and still somehow enjoy them is possibly another key to how well-crafted songs can deliver a better, more fulfilling listening experience than simple ones.

Most pop music used to be made in the major key, because it is perceived as a more accessible and happier sound, though in recent years that has changed where more pop songs now reside in the minor key. A [2008 music study](#) concluded that the dissonance of the minor key can be more likeable than the major key, and so can music that is dark or depressing in nature, because it can stimulate feelings of empathy or camaraderie. As the saying goes, misery loves company, and darker compositions of more complex and artistic music [tend to be more stimulating](#) in the long-term than saccharine, bright-sounding major key happy songs. And despite the dark sound or content, sad songs tend to make us feel calmer and happier afterwards, even more than songs of a positive nature.

## **Accessibility**

Though the minor key or more complex compositions can result in a more stimulating listening experience, that's not necessarily the case if the listener can't initially find enough appeal in a song to give it time to work. This is where accessibility plays into music. The reason why the music industry manufactures so much pop music is because it easily appeals to the masses. You don't have to tell people what to listen for, or rely on an active listener for the music to work. Artists who are able to embed accessible elements into otherwise complex compositions can benefit by giving a song wider appeal, allowing for the audience to warm up to the composition.

## **Conclusion**

So the fight for the soul of modern music is not simply about taste. There is certain scientific evidence that music is getting worse, and that music that is more artistic and complex is better for us on a very fundamental physiological level. If there is any wide arcing conclusion to take away from what we know about how music effects us, it is that education is key to creating music listeners who understand the value of what to listen for in music. Just like sugar and fast food, there's no denying the appeal of pop music for some, or the ease of accessibility it benefits from in modern society, both in sonic structure and simple availability. But healthy music listeners and a healthy music environment is possible by spreading the knowledge of why we love music, and why it effects us like it does.