

Four Ways Music Strengthens Social Bonds

By Jill Suttie

Why would human evolution have given us music? New research says the answer may lie in our drive to connect.

In 2009, archeologists unearthed a flute carved from bone and ivory that was over 35,000 years old. This proved that even during the hunting/gathering stage of human evolution, music was present and important to society. Why else take time away from survival tasks to create a musical instrument?



We know that music is pleasurable, and it seems to play a role in our wellbeing. But many researchers also believe that music plays a significant role in strengthening social bonds.

In a 2013 review of the research on music, Stefan Koelsch, music psychologist at the Freie Universität Berlin, described several mechanisms through which music impacts our ability to connect with one another—by impacting brain circuits involved in empathy, trust, and cooperation—perhaps explaining how it has survived in every culture of the world.

Although music can certainly be played and listened to alone, in the shower or on your iPod, it is also a powerful social magnet. After all, a music concert is one of the few times when we will gather together with thousands of other people to engage in a shared activity. There is something about listening to music, or playing it with other people, that brings its own social buzz, making you feel connected to those around you.

Here are some ways scientists believe that music strengthens social bonds.

1. Music increases contact, coordination, and cooperation with others

For much of human history, the only way to experience music was live—there were no recordings allowing us to share music outside of performance. Since music had to involve contact with others (e.g. coming together for a concert), it provided a net of physical and psychological safety that may have helped our early ancestors—and may still help us—to survive.

Performing music involves coordinating of our efforts, too ... at least if we want to produce a pleasing sound. According to researchers, when we try to synch with others musically—keeping the beat or harmonizing, for example—we tend to *feel positive social feelings towards those with whom we're synchronizing*, even if that person is not visible to us or not in the same room. Though it's unclear exactly why that happens, coordinating movement with another person is linked to the release of pleasure chemicals (endorphins) in the brain, which may explain why we get those *positive, warm feelings when we make music together*.



Playing music in a band or singing in a choir certainly involves cooperation as well—whether in preparation for the performance or during the performance. Arguably, cooperation increases *trust* between individuals and increases one's chances of future *cooperation*—important factors in human evolutionary success and societal stability.

2. Music gives us an oxytocin boost

Oxytocin is a neuropeptide (helps nerve cells to communicate) affiliated with breast-feeding and sexual contact, and is known to play an important role in increasing bonding and trust between people. Now researchers are discovering that music may affect oxytocin levels in the body!

In one experiment involving a breed of “singing” mice, mice that had their oxytocin receptor sites artificially knocked out by researchers engaged in fewer vocalizations and showed marked social deficits when compared to normal mice, suggesting a link between singing, oxytocin, and socialization. In a study with humans, singing for 30 minutes was shown to significantly raise oxytocin levels in both amateur and professional singers, regardless of how happy or unhappy the experience made them. Perhaps this explains why new mothers often sing lullabies to their newborn babies: it may help *encourage bonding* through oxytocin release.

Researchers have also found that listening to music releases oxytocin. In one study, patients undergoing coronary bypass surgery were asked to listen to experimenter-selected ‘soothing’ music for 30 minutes one day after surgery. When tested later, those who’d listened to music had higher levels of serum oxytocin compared to those who were assigned to bed-rest alone. Though the study was more focused on the relaxation properties of music than on oxytocin specifically, it still suggests that music directly impacts oxytocin levels, which, in turn, affect our ability to trust and act generously toward others—factors that increase our social connection.



3. Music strengthens our “theory of mind” and empathy

Music has been shown to activate many areas of the brain, including the circuit that helps us to understand what others are thinking and feeling, and to predict how they might behave—a social skill scientists call “theory of mind,” which is linked to empathy.

In one study, Koelsch and a colleague hooked up participants to an fMRI machine (makes a scan of any part of the body) and had them listen to a piece of music that they were told was either composed by a human or by a computer (even though it was actually the same



piece of music). When participants listened to music they believed was composed by a human, their “theory of mind” cortical network lit up, while it didn’t under the computer condition. This suggests that our brain doesn’t just process sound when we hear music, but instead tries to understand the intent of the musician and what’s being communicated.

In a more recent study, a group of primary-school-aged children were exposed to musical games with other children for one hour a week over the course of an academic year, while two control groups of same-aged children received either no games or games with the same purpose, but involving drama or storytelling instead of music. All of the children were given various empathy measures at the beginning and end of the year; but only the music group significantly increased their empathy scores, suggesting that music may have played a pivotal role in their empathy development.

4. Music increases cultural cohesion

Think of a favorite lullaby or children’s song passed down through the generations, or of crowds listening to the national anthem at a baseball game. *Music is one way of communicating belonging*, which may increase your sense of safety and obligation toward your group.

When we discover that someone likes a piece of music that we like, we tend to think better of them—as if musical preference had a deeper meaning than just entertainment. In fact, studies have shown that people affiliate musical taste with holding certain values, and that this assumed connection between music and values influences how much we think we’ll like someone based on their musical tastes.

Music also influences how we think others will get along. In one recent study, participants listened to music or to silence while they watched videotapes in which three people were seen walking either in step or out of step with one another. When asked to rate levels of rapport and sense of unity among the three walkers in both conditions, the participants who listened to music perceived a greater rapport and unity among the walkers than those participants who didn’t listen to music. This suggests that music somehow strengthens our perception of social cohesion among people, perhaps through mistaking our own feelings for those of the people we observe.



Studies find that *social cohesion* (feeling of belongingness) is higher within families and among peer groups when young people listen to music with their family members or peers, respectively. This effect is true even in cultures where interdependence is less valued, pointing to music’s potential to act as “social glue” that binds people together.

In fact, music works a lot like language does—except instead of words and ideas, emotions and intent are communicated. In this way, music, like language, can be passed on from generation to generation, creating a sense of continuity and loyalty to one’s tribe.

Nowadays, music has the potential to make us feel connected to all of humanity. The more we use music to bring us together—literally and figuratively—the more potential for increased empathy, social connection, and cooperation. I, for one, feel more connected to my human ancestors just knowing that someone took the time to carve that flute, succumbing to the primal urge to make music. It’s an urge I share. Perhaps we all do.