

CONTRIBUTED BY MARY STATON

The Power of Music on Our Brains

From outright enjoyment to deeper self-awareness to precious healing, the power of music on each of us is ever expanding, whether we're playing or simply listening

From *Science Daily*, it doesn't matter if it's Bach, the Beatles, Brad Paisley or Bruno Mars. Your favorite music likely triggers a similar type of activity in your brain as other people's do in theirs, new research has found.

According to neuroradiologist Dr. Jonathan Burdette at Wake Forest Baptist Medical Center in Winston-Salem, "Music is primal. It affects all of us, but in very personal, unique ways. Your interaction with music is different than mine, but it's still powerful." He continued, "Your brain has a reaction when you like or don't like something, including music."

Using functional magnetic resonance imaging (fMRI), Burdette and fellow researchers were able to see how favorite songs might affect functional brain connectivity, the interactions among separate areas of the brain, by detecting changes in blood flow.

The fMRI scans showed a consistent pattern: The listeners' favorite songs and not the type of music they were listening to had the greatest impact on brain connectivity.

This was especially true on a brain circuit – the default mode network – that is known to focus on thought, empathy and self-awareness. This circuit was poorly connected when the participants were listening to songs they disliked, better connected when listening to songs they liked, and the most connected when listening to their favorites. Burnette also believes that your experiences with certain music strongly enhance your brain connectivity.

In countries such as Germany, Burdette noted, music therapy is commonly an integral part of rehabilitation from strokes, brain surgery or traumatic brain injuries.

"If you're trying to restore neuroplasticity in the brain, to re-establish some of the connections that



Mike Strauss Band

were there before the injury, music can be a big help," he added.

At Dr. Burnette's hospital, a program called Music & Memory helps patients with Alzheimer's, dementia and other cognitive problems re-connect to the world using I-Pods with customized playlists fea-

turing songs popular when a patient was under 30 years old.

In Charlotte, the Charlotte Symphony Orchestra's Healing Hand program sends orchestra ensembles into area hospitals and retirement communities. In other towns, similar programs with similar names like Musicians on Call add a dose of joy to life in a healthcare or senior care facility.

"I truly believe music can add another dimension by bringing spiritual solace in times of strife. And during ceremonial music of all sorts – such as weddings, funerals, worship and such - it soothes the soul," said Lisa Phillips, an engineer, musician, and Symphony Guild volunteer who also believes in the solid connection between musical ability and math; she's a math tutor in Charlotte's public schools.

The Symphony also believes in music's universal-

ity and its power as an equalizer. Repertoires each year reflect not only classical music, but music and guest artists spanning many decades, genres and cultures. By using music as a tool to foster active listening and develop a strong sense of empathy, the CSO believes people can begin to understand and accept differences and move toward a more unified, harmonious community.

According to Troy Conn of the Troy Conn Trio, "I'm constantly reminded of the power of music. I've been fortunate to perform in a variety of settings and am always amazed at how the energy of a space changes the instant I play a note."

This UNCC music instructor added, "Music, especially live performances, seems to bring people together on so many different levels regardless of how varied their backgrounds may be."

The CSO especially believes in the wide array of benefits from music education – and spawned the Charlotte Symphony Youth Orchestra in 1961 – because it supports all learning thereafter. From language development and reasoning, memory recall, creative thinking, spatial-temporal skills, respect for discipline and practicing, the importance of team work and risk-taking, the joy of achievement and enhanced self-confidence, music education leads to an expanded world view that fuels imagination and intellectual curiosity.

In partnership with Community School of the Arts, Project Harmony is an intensive youth music program focused primarily on local communities with the fewest resources and greatest need. It builds off of Community School of the Arts' long-running Orchestra in Schools program and expands the Charlotte Symphony's Winterfield Youth Orchestra elementary school program to other sites and eager young minds.

When protests broke out in the streets of uptown Charlotte for several days in September 2016 following the police shooting of 43-year-old African-American Keith Lamont Scott, Charlotte Symphony cancelled its scheduled season opener and instead held a free performance for peace. They called it One Charlotte.

Many other community-building events and activities including Listen Up, Charlotte and A Sign of the Times are helping us move toward a more harmonious community through music.

Through research and real life, music is proving to be a healer, equalizer, teacher, convener and the universal language of human interaction, no matter if you hail from Charlotte or some distant shore. ■



Tony Conn Trio

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