

While the auditory cortex is responsible for processing incoming sound stimuli in the brain, music activates far more structures associated with matters such as emotions, movement, and memory. Daniel Levitin, a psychologist who studies neuroscience and music at McGill University, believes that because music can activate these areas in the brain in everyone, regardless of one's musical preferences. This may be a unifying factor for our species, explaining why music is a much-needed part of our modern society and why bonding over music is such an emotional and effective way to connect with people. In his book *This Is Your Brain On Music*, Levitin argues that, for these reasons, music throughout time has led to social bonding and improved fitness. But even though music can be unifying, and its effects are astoundingly similar on everyone's brains, why do some people prefer heavy metal over classical? "This is where music becomes linked to emotions," notes Lecia Bushak, author of an article similarly entitled, "This Is Your Brain On Music." Bushak states that this is still a gray area of research, but one that caught the attention of neurologist Oliver Sacks. In his research, Sacks used himself as an example of how different types of music activate the brain at varying intensities. Sacks, a lover of all things Bach since the age of five, allowed his brain to be scanned while listening to a "new, obscure Bach piece as well as a Beethoven piece." He tracked how the music made him feel with a handheld device that allowed him to rate his emotions on a scale. After the test, Sacks said the Bach piece was beautiful for him, but Beethoven "left him flat." What is most neurologically significant, however, is that the brain scans taken as a part of this test correlated precisely with Sacks's emotions. His brain was far more stimulated and aroused during the Bach piece than during the Beethoven piece (Bushak). Music's control over our emotions is not just a purely psychological factor. Oliver Sacks's brain scans show that every emotional response has a neurological basis - more than one, in fact, as multiple parts of Sacks's brain lit up in response to both Bach and Beethoven - and that something that seems as surface-level as one's taste in music is actually a subject matter that involves analysis of chemical activity deep in our brains. What