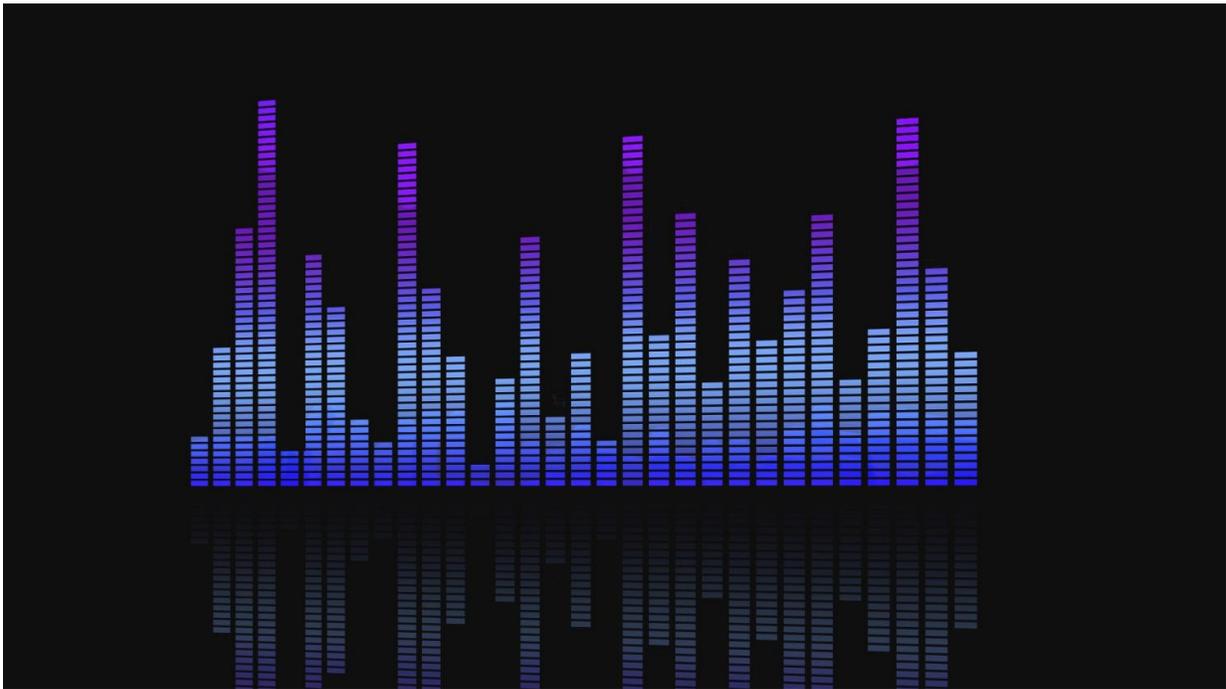


# Physical commitment makes musical performers appreciate their music more

February 28 2017

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Many musicians are familiar with the phenomenon: Their music sounds much better while performing it live than when they listen back to the recorded version. Scientists at the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig have now found out that the physical commitment makes performers appreciate their music more. The findings could not only help people access new styles of music, but

could also make music therapy more successful.

Previously it was assumed that music is perceived as pleasant when it is to one's taste. Those who are more into the harsh sounds of metal music will not be enthusiastic about the softer melodies of pop songs. Similarly, those devoting themselves to Italian operas will not derive pleasure from the monotonous bass sounds of electronic music.

The fact that this feeling is greatly dependent on the way in which we experience music has recently been demonstrated by scientists at the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig: "We observed again and again how grandpas enjoyed [electronic music](#) together with their grandchildren, although they had never been interested in this style before", says Thomas H. Fritz from the Max Planck Institute in Leipzig. "As soon as they produce the music on their own instead of passively absorbing it, their aesthetic perception towards other music genres changes dramatically."

## **Movement creates music**

This effect can be observed particularly strongly in Jymmin, a method whose name derives from a combination of jamming and gym—a mixture of free music improvisation and sports. In Jymmin, fitness devices are modulated in a way that allows music to be created by performing exercises. Using an abdominal trainer, pull bar or stepper, singles tones can be produced and modulated. In this manner and with the help of special music software developed at Leipzig's Max Planck Institute, sports equipment can be used like musical instruments. "People who deem themselves totally unmusical and who have never held a musical instrument in their hands are thereby able to make music", explains Fritz, who first spoke about this technique four years ago. "When this occurs in combination with physical exertion we can measure a positive bias." This means that people experience the music as

much more pleasant and feel rewarding effects as soon as they produce it on their own—even when the style of music is not to their taste.

These observations could also explain why musicians perceive their own performance as more aesthetically satisfying than just listening to it. Neuroscientists working with Fritz also talk about the Band Effect in which joint music making also plays a crucial role.

"Due to our findings, music can now be applied as a form of therapy in a much easier and broader way", states Fritz. In previous studies, Jymmin has been shown to trigger several positive psychological effects by increasing personal motivation and mood. Until recently, Fritz and his team presumed that it has to be highly individualised, meaning that it needs to be adapted to one's personal taste in music to be applicable to a large patient group.

## **Increased tolerance towards different music styles**

Thanks to the current insights, they now know that this is unnecessary: "We carried out this study in patients with drug addiction or chronic pain, namely people who feel agitated by every little thing and easily become irritable", the cognitive scientist explains. "By physically exerting themselves to make music, the actual style becomes less important." Instead, they experience self-efficacy to produce and modulate sounds on their own. By doing this, not only do they become much more in tune with their own body, but they also increase their tolerance towards previously rejected genres. "This provides the opportunity to also take group [music therapy](#) into account." The intriguing point is, patients lose the inhibitions that people often have about music therapy. Jymmin offers them just a few degrees of freedom, meaning that the individual cannot do anything wrong—and the personal experience is still aesthetic.

But how can the Band Effect be explained? Past psychological studies have shown that personal engagement enhances the perceived quality of a subject. Since Jymmin and making music on a regular instrument require high physical commitment, neuroscientists presume that this leads to a performer's greater aesthetic appreciation towards the [music](#).

**More information:** Thomas H. Fritz et al. The Band Effect—Physically Strenuous Music Making Increases Esthetic Appreciation of Music, *Frontiers in Neuroscience* (2016). [DOI: 10.3389/fnins.2016.00448](https://doi.org/10.3389/fnins.2016.00448)

Provided by Max Planck Society

Citation: Physical commitment makes musical performers appreciate their music more (2017, February 28) retrieved 25 April 2024 from <https://medicalxpress.com/news/2017-02-physical-commitment-musical-music.html>

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