The Neuroscience Of Musical Perception, Bass Guitars And Drake

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NPR:

In June of 2001 musician Peter Gabriel flew to Atlanta to make music with two apes. The jam went surprisingly well.

At each session Gabriel, a known dabbler in experimental music and a founding member of the band Genesis, would riff with a small group of musicians. The bonobos — one named Panbanisha, the other Kanzi — were trained to play in response on keyboards and showed a surprising, if rudimentary, awareness of melody and rhythm.

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A self-described "hardcore nativist," Poeppel says that much of musical ability and appreciation probably comes genetically hard-wired, but, as his study also showed, the number of years of musical training someone has correlates with entrainment. Whatever it means artistically speaking, we can train our brains to respond more precisely to music in a measurable, biologic way.

A study from 2014 supports Poeppel's findings and may reveal a nuance that helps explain how entrainment influences what we perceive as music. Using an electroencephalogram, or EEG, to measure electrical activity in the brain, psychologist Laurel Trainor and her colleagues from McMaster University in Hamilton, Ontario, found that the human brain is far more sensitive to low notes being off tempo than higher notes. Or, put another way, our brains entrain more to low frequencies.

Read the whole story: NPR