



WHAT TYPE OF MUSIC DO MONKEYS AND CHIMPANZEES PREFER TO LISTEN TO?

\$1 million
Georgia
National Institutes of Health

Don't expect to hear Justin Bieber on the playlist of a monkey or chimpanzee.

The National Institutes of Health (NIH) has conducted numerous studies over the past decade to determine the musical preferences of non-human primates, even going so far as to have music composed specifically to suit the taste of tamarins. The studies found that most primates do not like popular Western music, with one exception – the heavy metal sounds of the rock band Metallica.

When given the option to listen to different types of music or opt for silence, chimpanzees chose Indian and African music—and even silence—over Western or Japanese music, but the monkeys went ape for the sounds composed specifically for their ears.

One of the research projects on chimps' choice of music was conducted at the Yerkes National Primate Research Center with the support of an NIH base grant, totaling about \$10 million a year, as well as the NIH fellowship program, which amounts to about \$1 million annually.¹⁶³

The chimps were free to hang out in zones where they could listen to West African akan, North Indian raga, or Japanese taiko music, or no music at all. The zone in which each chimp was located was recorded. The chimps' behavior when the music was played was also videotaped and compared to their behavior with no music.¹⁶⁴ The researchers assumed the chimps' choice of location indicated a choice in musical preference.¹⁶⁵

“When African and Indian music was played near their large outdoor enclosures, the chimps spent significantly more time in areas where they could best hear the music. When Japanese music was played, they were more likely to be found in spots where it was more difficult or impossible to hear the music.”¹⁶⁶

The chimps' preferred types of music “had extreme ratios of strong to weak beats: The Indian music had one strong beat for every 31 weak beats, and the African music, as it is built on ostinatos, had almost all strong beats, with very few weak beats interspersed. Because of these extreme ratios of strong to weak beats, the listener does not hear an obvious pulse to the music. In contrast, the Japanese music, which was not preferred, had regular strong beats every other beat, producing a clear, percussive pulse.”¹⁶⁷

The authors note Western music, “which primates have not shown a preference for historically, generally employs a rhythmic style similar to the Japanese music.”¹⁶⁸

The chimpanzees “may have perceived the strong, predictable rhythmic patterns as threatening, as chimpanzee dominance displays (including those of the Yerkes chimpanzees) commonly incorporate repeated rhythmic sounds such as stomping, clapping, and banging objects.”¹⁶⁹

Music with different rhythms was chosen for this study because previous research focused primarily on Western music. “Although Western music, such as pop, blues, and classical music, sound different to the casual listener, they all follow the same musical and acoustic patterns. Therefore, by testing only different Western music, previous research has essentially replicated itself.”¹⁷⁰



Tamarin monkeys are fans of the heavy metal music of the rock band Metallica.

Like the chimps, a study of the musical preferences of tamarin monkeys also found a distaste for Western music—with one notable exception. A variety of music including Bach, Led Zeppelin and Miles Davis was played for the monkeys, but they only reacted positively to heavy metal songs by the rock band Metallica.¹⁷¹ The monkeys did not “respond at all to Nine-Inch Nails, Tool or Samuel Barber’s ‘Adagio for Strings,’ but oddly enough, they did become slightly calmer after listening to ‘Of Wolf and Man’ by Metallica.”¹⁷²

A \$2.9 million NIH grant to Charles Snowdon of the University of Wisconsin, Madison, funded the project which included composing music specifically for the ears of monkeys.¹⁷³

As part of his research, Snowdon teamed up with David Teie, a cellist with the American National Symphony Orchestra, who composed music specifically for monkeys. The pitch, tone, and tempo of emotional monkey calls from fearful to soothing were used to create “rock and classical music selections with Teie’s voice and cello.”¹⁷⁴

While the tamarins were “generally indifferent to playbacks of human music,” they had the anticipated reactions to the music composed for them.¹⁷⁵ The “fear-based track” caused the animals to become “anxious and upset, as indicated by increased activity and nervous behaviors like urination and scent marking. After hearing the calm music, the monkeys became more relaxed and social.”¹⁷⁶

The music composed for the monkeys can be heard at <http://rsbl.royalsocietypublishing.org/content/6/1/30.figures-only>.¹⁷⁷

While the monkeys liked the music, the sound drove the researchers bananas. Snowdon says the music “is as irritating as all get out—it’s like fingernails on a chalkboard.”¹⁷⁸

Likewise, spending public money making music for monkeys and creating playlists for chimpanzees is not music to the ears of taxpayers.