ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/235910144

Violent Lyrics in heavy Metal Music Can Increase Aggression in Males

Article *in* North American Journal of Psychology · March 2011

CITATIONS
33

READS
12,722

3 authors, including:

Frank McAndrew
Knox College
183 PUBLICATIONS **2,385** CITATIONS

SEE PROFILE

All content following this page was uploaded by Frank McAndrew on 19 July 2016.

The user has requested enhancement of the downloaded file.

Violent Lyrics in Heavy Metal Music Can Increase Aggression in Males

John F. Mast and Francis T. McAndrew
Knox College

Thirty-five male college students added as much hot sauce as they wanted to a cup of water they believed another subject would have to drink after listening to heavy metal music with violent lyrics, heavy metal music without violent lyrics, or no music at all. Males who were exposed to the music with violent lyrics added more hot sauce to the water than those in the other groups. An equipment failure prevented a definitive analysis of the role played by testosterone in this effect, but the results clearly indicate that it was the lyrics and not other qualities of the music that was responsible for the aggressive behavior.

Klinesmith, Kasser, and McAndrew (2006) demonstrated that handling a gun caused males to aggress more in an experiment where they spiked a cup of water with hot sauce, believing that another subject would drink it. They also determined that the increase in aggression was mediated by testosterone levels that were raised by handling the gun. This is a well-accepted, reliable and valid technique for measuring aggression in the laboratory (Lieberman, Solomon, Greenberg, & McGregor, 1999).

We used the design of the Klinesmith et al study to weigh in on the controversy surrounding the role played by violent lyrics in heavy metal music in causing aggressive behavior, and whether such lyrics operate in the same fashion as the guns in the aforementioned study. Anecdotal arguments notwithstanding, the experimental evidence regarding this matter is quite mixed (Anderson, Carnagey, & Eubanks, 2003; Arnett, 1991; Ballard & Coates, 1995; Fried, 2006; Gowensmith & Bloom, 1997).

Thirty-five male college students (age range = 18-22) were recruited from undergraduate psychology classes to participate in a study described as being about the relationship between auditory stimulation and taste sensitivity. The students received course credit for their participation. They were randomly assigned to one of three experimental groups: A group that listened to heavy metal music that had been pretested and judged to have violent lyrics (n=11; the songs were "Bloodmeat" and "Limb from Limb" performed by *Protest the Hero*), and a group that listened to similar heavy metal songs pretested and judged to have no

Author info: Correspondence should be sent to: Dr. Francis T. McAndrew, Department of Psychology, Knox College, 2 East South Street, Galesburg, IL, 61401-4999 e-mail: fmcandre@knox.edu
North American Journal of Psychology, 2011, Vol. 13, No. 1, 63-64.
© NAJP

violent lyrics (n=12; the songs were "Bounce," "Old School Hollywood," and "I-E-A-I-A-I-O" performed by *System of a Down*), and a control group that listened to no music at all and sat silently in the room waiting for the next part of the experiment. Saliva samples were taken prior to and after an eight-minute music exposure, and the subjects also engaged in a bogus taste-rating task. Each participant was then given a cup filled with 115 mg of water and a bottle of hot sauce and was instructed to prepare a taste sample for the next experimental subject. The dependent variable was the weight, in milligrams, of hot sauce that the subject added to the cup of water which was weighed before and after the hot sauce was added.

Unfortunately, a refrigeration failure damaged the saliva samples, precluding an analysis of the testosterone data. However, a one-way analysis of variance revealed that there was a powerful effect of the experimental manipulation on aggression. The group exposed to the violent lyrics added significantly more hot sauce to the water than either of the other two groups, which were not significantly different from each other, F (2, 32) = 4.37, $p < .02$, Cohen's d = .85 & .86, Mean (SD): 16.05 (24.20) vs. 1.41 (1.71) vs. 1.29 (2.09).

Our results do not allow us to draw conclusions about the relationship between violent heavy metal lyrics and testosterone, but we found clear evidence that exposure to such lyrics was linked to aggressive behavior in this study. Although there was no check to see if the subjects had guessed the hypothesis, given the strong similarities between the songs in terms of volume, tempo, and other musical qualities, the lyrics themselves seem to be the primary agent acting on the behavior.

REFERENCES

Anderson, C. A., Carnagey, N. L., & Eubanks, J. (2003). Exposure to violent media: The effects of songs with violent lyrics on aggressive thoughts and feelings. *Journal of Personality and Social Psychology, 84,* 960-971.

Arnett, J. (1991). Adolescents and heavy metal music. *Youth and Society, 23,* 76-98.

Ballard, M. E., & Coates, S. (1995). The immediate effects of homicidal, suicidal, and nonviolent heavy metal and rap songs on the moods of college students. *Youth and Society, 27,* 148-168.

Fried, C. B. (2006). Bad rap for rap: Bias in reactions to music lyrics. *Journal of Applied Social Psychology, 26,* 2135-2146.

Gowensmith, W. N., & Bloom, L. J. (1997). The effects of heavy metal music on arousal and anger. *Journal of Music Therapy, 34,* 33-45.

Klinesmith, J., Kasser, T., & McAndrew, F. T. (2006). Guns, testosterone, and aggression: An experimental test of a meditational hypothesis. *Psychological Science, 17,* 568-571.

Lieberman, J. D., Solomon, S., Greenberg, J., & McGregor, H. A. (1999). A hot new way to measure aggression: Hot sauce allocation. *Aggressive Behavior, 25,* 331-348.

Copyright of North American Journal of Psychology is the property of North American Journal of Psychology and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

View publication stats