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# The Effects of Hard Rock Music on Aggression in College Students

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## **ABSTRACT**

The aggression levels of college students was measured after listening to either a hard rock song, The Used's (2002) Maybe Memories, or an upbeat jazz song, Scott Joplin's (1899) The Entertainer. Each song was edited into the background of a neutral video of the South Dakota State University campus. After viewing the short film clip, a modified version of the Buss and Durkee's (1981) Hostility Inventory was completed. The name of the inventory was changed to "Aspects of Personality" to reduce potential bias. The results of this study do not show that hard rock music increased college students' aggression level.

Artists use music in order to express emotion, their views of the world, and feelings toward others. Many musicians prefer a fast-paced, aggressive, and violent format of music. This genre of music is known as hard rock or heavy metal. Rock was first introduced to the public in 1955 by Bill Haley and The Comets, and since then, has been viewed as a negative influence on society (Ballard & Coates, 1995). Lieberman (1997) concluded that much of the music that the youth of America are now listening to may be depreciating their value of life. Parental concern exists about rock music teaching this generation's youth about sex, drugs, and violence (Ballard & Coates).

It is not clear what role rock lyrics play in aggression. Ballard and Coates concluded that the majority of listeners focus on the music rather than the actual lyrics. They also found that adolescents found it difficult determining the theme of a rock song, based on the lyrics alone. In much of today's rock music, lyrics do not seem to be emphasized as much as the actual music itself (Barongan & Nagayama Hall, 1995).

In the current study, a modified version of Buss and Durkee's (1981) Hostility Inventory was used to measure the aggression level of college students. The validity of this paper and pencil test as an accurate measure of aggression has been previously established. Morse, McNeil, and Ketcham (1966) stated, "The Buss-Durkee Inventory remains one of the best instruments to quantify aggression." Renson, Adams, and Tinklenberg (1978) also confirmed the validity of the inventory in an experiment involving violent chronic alcohol abusers. This Hostility Inventory also seems to do well in predicting who will be aggressive or violent (Knott, 1970).

In the current experiment, the relationship between brief exposure to hard rock music, aggression, and violent behaviors will be examined. It is expected that fast-paced,

aggressive rock will increase aggression levels in the participants when compared to the control group. The influence of music preference is also studied.

#### **METHOD**

# **Participants**

Seventy undergraduate college students, 18 years of age or older, attending South Dakota State University volunteered to participate in this study. Participants were selected from an Introductory Psychology course. Approval was received from the Human Subjects Committee of South Dakota State University. All subjects were treated according to the NIH guidelines for conduction of Human Research.

#### Materials

Music from The Used's (2002) Maybe Memories and Scott Joplin's (1899) The Entertainer were selected. Both songs were edited into the background of a neutral video of the South Dakota State University campus. A modified version of the Buss and Durkee's (1981) Hostility Inventory was used to measure the aggression level of the participants. Thirty-four additional questions were added to the test to either distract the students from its original purpose or elicit additional information about types of music each student normally enjoys. These questions were not included in the final score. Six of the original questions were also altered due to difficult or outdated word choices.

## Design and Procedure

Seventy students were randomly assigned to different groups. There was a total of 40 students in the control groups and 30 students in the experimental groups. A consent form was given to them which outlined the procedure, and they were given the opportunity to refuse to participate at any time. The participants then viewed a video clip. The video clip contained neutral scenery images of the South Dakota State University campus, but did not contain any people.

Each video was approximately five minutes long and had music edited into the background. In the control group the background song contained classical ragtime music, Scott Joplin's (1899) The Entertainer. A heavy aggressive rock song was edited into the experimental group's video, The Used's (2002) Maybe Memories. After the students viewed the short video clip they were asked to take a true/false inventory. The inventory was a modified version of the Buss and Durkee's (1981) Hostility Inventory. A higher score on the test indicated a higher level of aggression. To reflect the alterations and to prevent possible bias, the name of the test was presented to the participants as Aspects of Personality Inventory.

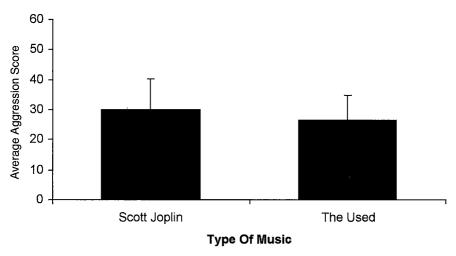
The name of the experiment was also changed on the consent form from "The Effects of Hard Rock Music On Aggression In College Students" to "Aspects of Personality." The students were not made aware that they were specifically being measured for aggression or that the name of the experiment was altered. Prior to viewing

the video, they were also not told why certain music was being played. This information was not disclosed because of its potential to bias the experiment, although it was disclosed to them in the debriefing. The subjects were told the exact nature of the experiment at the conclusion of the experiment.

Any concerns the students had were promptly addressed following the procedures to make certain no aggressive acts would occur after they left the experiment and that no extreme distress was felt. Phone numbers were available for the counseling center and the supervisor of the experiment. This study was conducted under the American Psychological Association's guideline code of ethics.

#### **RESULTS**

As shown in Figure 1, the students that listened to the aggressive rock music (M = 26.43, SD = 8.22) did not score statistically higher on the modified version of the Hostility Inventory than did the students who listened to the light jazz music (M = 29.85, SD = 10.36); t(68) = -1.49, p = .07 (one-tailed), d = .18. There was also no relationship between the preferences for type of music for the control group and the experimental group,  $\chi^2$  (7, N = 70) = 14.07, p = .88. Therefore, music style did not significantly affect the results.



**Figure 1.** The mean and standard deviations for the two groups that either listened to Scott Joplin (control) or The Used (experimental).

## DISCUSSION

In the present study, there was no differential effect of type of music on immediate aggressive behavior, as measured by the Hostility Inventory. Coss (1998) found similar results. However, according to the American Academy of Pediatrics (1996), there is a significant marker between adolescents' preference for heavy metal and dangerous behavior in their youth.

Several factors may have prevented the lack of expected results, such as the selection of the music. Instead of Scott Joplin's (1899) The Entertainer, maybe something closer to the current time period could have been used, increasing familiarity or making the selection more enjoyable to the participants. Another factor that may have contributed to the lack of significant results is that the music may not have been either neutral enough or aggressive enough. Maybe bands such as Cannibal Corpse or Deicide may have produced greater aggression levels, and therefore could be used in future studies. As Palumbo (1997) pointed out, the highest concern comes from rap and heavy metal.

Another factor that may have affected the current results was the time of day the subjects participated in the experiment. The control group was run early in the evening and the experimental group was run later in the evening. The experimental group may have been more relaxed or tired than the control group.

For at least the past 50 years, popular music has been assumed to produce aggressive behavior. Although some studies do find an effect of certain types of music on aggression, this is not a consistent effect. Since music can be found in so many diverse cultural contexts, the sensory and perceptual effects of music are important to understand.

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