Ambivalent Sexism and Misogynistic Rap Music: Does Exposure To Eminem Increase Sexism?

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Abstract

We evaluate the oft-repeated but typically untested claim that rap music encourages sexism. In two studies, we examined whether sexism exhibited by college students increased after exposure to misogynistic rap music. We randomly assigned participants to one of three conditions: no music, misogynistic rap music, and non-misogynistic rap music. The first study (treated as a pilot; N=232) weakly demonstrated the differential impact of exposure on male and female participants, but our measures of sexism were unreliable. We then conducted a second study (N=192) employing well-validated (and more subtle) measures taken from the Ambivalent Sexism Inventory (ASI). This second study revealed a much more complex set of exposure effects. While we replicated the weak differential impact of participants' sex, we also find that sexism increased after listening to non-misogynistic rap music, especially among males. Implications for the debate about labeling and censoring rap music are discussed.

Past research finds that exposure to rap music promotes racial stereotyping (Rudman & Lee 2002). Whites who watch violent rap videos, for example, generate more negative dispositional attributions of anonymous black males' behaviors (Johnson, Trawalter & Dovidio, 2000). Critics say rap music is harmful, however, not only because it promotes racial stereotyping, but also because it encourages males' anger and aggression toward women (Beatty, 2002; Keathley, 2002). The genre of 'gangsta-rap' in particular is blamed for normalizing misogynistic attitudes by celebrating the physical abuse of women (MacKinnon, 1993). Consequently, one explosive if unsubstantiated objection to rap is that "rape and rap just go together a little too well" (Brownsworth, 2001; see also hooks, 1993).

Our research asks a simple but important question: Does exposure to misogynistic rap music result in increased sexism among its listeners? At present, this question cannot be answered definitively. Certainly there are strong but conflicting opinions among commentators. The outcry after the rapper Eminem was nominated for and subsequently awarded a Grammy in 2001 for his album, *The Marshall Mathers LP*, for example, represents the position that rap music promotes models of masculinity that sustain and encourage misogyny (Davis, 1998; Armstrong, 2001; Beatty, 2002). More broadly, Keathley (2002, p. 29) presents a normative critique of Eminem's music against the background of an assumed "entrenched institutionalized misogyny rather than as some phenomenon unique to Eminem or to rap as a genre." Opponents of censorship, on the other hand, find these accusations alarmist and question whether lyrics have a sinister linkage to behaviors (Dixon & Brooks, 2002). In their view, even rap that is potentially sexist might not have consequences beyond merely being offensive to some listeners

(Dixon & Linz, 1997).

The handful of rigorous empirical studies in the literature are more helpful, but not all of them conclude that exposure to rap music causes an increase in sexism. Regardless, each of these empirical studies has important methodological limitations that require us to cautiously interpret their conclusions. Wester, Crown, Quatman & Heesacker (1997), for example, fail to find that exposure to misogynistic rap results in significantly more negative attitudes toward women, although they do indicate that reading sexist lyrics increases males' belief that sexual relationships are exploitive. Yet, their sample was limited to 60 male undergraduates at a small, religious university, which also prevents them from studying in-group perceptions; are women equally affected by exposure to misogynistic rap? On the other hand, Barongan and Hall's (1995) data show that watching misogynistic rap videos increases males' sexually aggressive behavior, and Johnson, Adams, Ashburn & Reed (1995) conclude that exposure to sexist but non-violent rap leads young black females to become more accepting of violence directed at them. Unfortunately, Barongan and Hall (1995) could not assess in-group perceptions because their study was limited to only 50 male participants, and it is unclear whether the findings of Johnson et al (1995) apply to a broader audience because their study relied on a fairly small sample of African Americans. Finally, both of these latter studies produced significant exposure effects by manipulating visual rather than auditory stimuli, and studies indicate that visual stimuli produce different results than do auditory stimuli (Druckman, 2003).

Hypotheses

Despite the lack of consensus and the uncertain applicability of earlier studies, social cognitive theories of priming and stereotype activation strongly support the expectation that exposure to misogynistic lyrics increases sexist reactions (Fiske & Taylor, 1991; Devine, 1989; Dunning & Sherman, 1997). Past research, however, also warns against expecting to find a simple relationship between exposure to misogynistic rap music and listeners' levels of sexism. Instead, prominent models of information processing (Petty & Cacioppo, 1981, 1986) and studies on the potentially conditional nature of automatic stereotype activation (Gilbert & Hixon, 1991) predict listeners' sex will mediate their reactions to sexist rap lyrics; males will be more susceptible to priming effects of misogynistic rap because they will be less motivated than women to thoughtfully process the content of the lyrics. It is possible, however, that the whole genre of rap is stereotyped and categorized in memory as sexist. This possibility, suggested by the cognitive theory of spreading activation (Anderson, 1983), would predict that exposure to even non-misogynistic rap music affects levels of sexism.

Stereotype priming and category activation

Hypothesis 1. Exposure to misogynistic music results in greater levels of expressed sexism.

Stereotype priming refers to the process of administering some form of stimulus that activates group category information stored in memory. If theoretically associated concepts such as negative racial stereotypes are found to be more accessible following exposure to a member of that racial group, for example, this is taken to be evidence that a

mental representation of the prime (i.e, an African American) has been activated in memory. More importantly, priming effects are usually assumed to be evidence of not just what the person *knows* about the social category, but also what they *think* about members of that social category (Kawakami, Dion & Dovidio, 1998). Thus, mere exposure to a solitary member of a social category is enough to activate racial stereotypes about a target group (Bargh, 1997; Henderson-King & Nisbett 1996), and bigoted whites recognition of negative adjectives like "lazy" and "violent" is facilitated by exposure to a solo African-American's face (Fazio, Jackson, Dunton, & Williams, 1995).

Some debate remains about whether stereotype activation is unavoidable (Blair & Banaji, 1996), but it appears that stereotype activation is very difficult to control even among the most egalitarian (Bargh, 1999). Stereotype application is particularly likely to occur after activation without the motivation to inhibit it. Consequently, we predict that sexism will increase after exposure to misogynistic rap because sexism is widely endorsed and lyrical primes will make it more accessible in memory.

Spreading Activation

Hypothesis 2. Exposure to non-misogynistic rap music also results in increased sexism.

We draw upon the theory of spreading activation and test whether exposure to non-misogynistic rap will also increase listeners' sexism. Theories of spreading activation are used to explain both the encoding and retrieval of information in memory (Anderson, 1983). According to the basic framework, memory is represented as interconnected concepts (or nodes) that vary in the strength of their associations;

activating one memory, therefore, results in the spreading activation of other related memories. Memories that are strongly related, such as 'chocolate' and 'ice-cream,' for example, are both activated when another related memory is primed, such as 'dessert.' Spreading activation explains that if memories of rap music in general are associated with misogyny (and there is every reason to believe this might occur since objectively rap is disproportionately violent and sexist (Armstrong, 2001)), then exposure to any rap song is capable of spontaneously activating sexism. In other words, implicitly or explicitly sexist language and imagery are not required for sexism to be activated after exposure to music so long as sexism and the type of music are already linked together in memory.

A relevant example of how this works in practice comes from a study conducted by St. Lawrence and Joyner (1991). They found that their study participants reported holding more sexist attitudes after hearing Christian heavy metal songs despite their lack of misogynistic lyrics. Presumably, the genre of heavy metal was understood to be anti-female, and therefore exposure to this type of music was able to prime cultural values associated with it, irrespective of actual lyrical content. Studies on racial prejudice suggest that the effects of spreading activation might be especially powerful when it comes to priming sexism. Ordinarily, people are aware that endorsing sexism might not be socially acceptable, yet when exposed to rap songs devoid of sexist lyrics, most listeners would be unaware of the need to control their public responses since the particular lyrics are indeed not chauvinistic (for a parallel situation about the expression of racial attitudes, see Kuklinski & Cobb, 1998).

Participants' Sex as a moderator of attitude change

Hypothesis 3. Exposure to misogynistic rap music results in increased sexism for males and reduced sexism for females.

Past research finds a close relationship between stereotype activation and application except when individuals are motivated to control their reactions to the stimuli (Devine, 1989), or when they have particular information processing goals (such as accuracy) that interrupt the smooth transition from activation to application (Fiske, 1989). In situations where individuals want to maintain a non-sexist self-image, for example, sex stereotype application is more easily inhibited (Devine & Monteith, 1999). Although the motivation to control sex stereotype activation or application after exposure to misogynistic rap music is not expected to be great, the literature on information processing suggests that participants' sex will mediate reactions to misogynistic rap because women will be more motivated to control their sexist reactions.

That sex will mediate exposure effects is clearly implied by anecdotal evidence identifying young males as especially vulnerable to the message content of rap, but more importantly it is derived from Petty & Cacioppo's (1981, 1986) distinction between central and peripheral information processing. According to their elaboration likelihood model of attitude change, some individuals attempt to understand incoming information more thoroughly, or centrally, while most people, most of the time, are less attentive and just peripherally engaged. The type of person and the context of the situation help predict which type of information processing mode will predominate and whether or not attitudes are expected to change. In situations where motivation is high (or time is not scarce), individuals are expected to more carefully consider incoming information.

The implication of this model of attitude change is that males' sexism will increase while females' will decrease after listening to misogynistic rap lyrics. Since males are more likely to peripherally process misogynistic lyrics, their endorsement of sexist attitudes is facilitated by exposure because lyrics prime their latent sexist attitudes unimpeded by the recognition that this is occurring or that it might be wrong. Lacking comparable motivation to more rigorously process sexist lyrical content, men are less likely (and able) to counter-argue against sexist beliefs activated automatically by exposure to the lyrics (Fazio, Jackson, Dunton & Williams, 1995). Women, however, are more likely to centrally process the misogynistic lyrics and to reject them because they are the targets of misogynistic rap lyrics; the process is "just say[ing] no" to sexism (Kawakami et al., 2000).

Study 1 (Pilot Study)

Method

Participants. We initiated study 1 in the fall semester of 2001, collecting data on 232 undergraduate participants who took part in the study in exchange for partial fulfillment of research participation requirements. Similar to the demographics of the campus population, a majority of study participants were males (54%) and white (77%).

Design and Procedure. We conducted a between-subjects experimental design by randomly assigning participants to one of three conditions: (1) no music (control group), (2) non-misogynistic rap and (3) misogynistic rap. Participants entered a classroom and then listened to music or no music, and afterwards responded to questions that measured levels of sexism. After completing the survey, participants were debriefed and told the

true purpose of the experiment.[1]

Materials. Exposure to misogynistic rap was administered by playing a song, *Kill You*, by the rapper Eminem. To varying degrees throughout the song, he describes and seemingly endorses hostility and violence towards women. For our non-misogynistic rap, we used a Beastie Boys' song called *Sabotage*. This song was chosen because the rappers are male and white, like Eminem, and their song has an equally aggressive rhythm that is nevertheless devoid of overt sexism. In other words, the relevant characteristics of the two songs are nearly identical with the sole exception of the presence or absence of sexist lyrics. Lyrics to both songs are available upon request.

Measures. To measure participants' levels of sexism, we asked them to evaluate five statements about gender stereotypical or atypical behaviors of women, such as "Women rather than men are most likely to stay home and raise children." Each statement was evaluated using ten-point scales, ranging from evaluating the behavior as a (1) "very bad thing" to it is a (10) "very good thing." Precise question wording is described in Appendix A.

Results

Measurement reliability. Factor analysis indicated that we measured two dimensions of sexism. According to the theory of ambivalent sexism (Glick & Fiske, 1996), our measures of sexism captured the distinction between hostile (HS) and benevolent sexism (BS). Two of our items significantly loaded on BS and the other three

[1] We were concerned that social desirability effects would bias responses, so immediately after listening to the music (or not), participants were first asked what they thought about potential government regulations and censorship. After participants completed this brief survey about censorship and turned it in, they were told a new, unrelated study on decision-making skills would begin. This "second" study actually measured participants' levels of sexism.

significantly loaded on HS; therefore we created two additive scales measuring each dimension of sexism. Further analyses, however, indicated both scales were only marginally reliable (BS *M=10.73, SD=3.84, Alpha=.48;* HS *M= 12.34, SD=5.05, Alpha=.59*). Consequently, we do not delve too deeply into our findings from this study.

Exposure to Rap Music. We use 2 X 3 ANOVAs (participants' sex—1 = female, 2 = male X music condition—1 = control, 2 = Beastie Boys, 3 = Eminem) to test our hypotheses. According to the results, the music condition did not affect either type of sexism, but participants' sex significantly affected both BS and HS (BS, $F(1, 231) = 25.53$, $p < .01$; HS, $F(1, 231) = 18.89$, $p < .01$). An examination of the means for BS and HS revealed that, as would be expected, males' scores were significantly higher (BS *M*s = 11.8 vs. 9.49; HS *M*s = 21.95 vs. 19.15). The interaction between participants' sex and exposure to rap (*H3*), however, was insignificant for both BS ($p = .24$) and HS ($p = .35$).

It is possible that the trichotomous coding of the music condition in the ANOVAs obscures more limited exposure effects that might become apparent if the two rap conditions were each compared directly to the control group or to each other, so we disaggregated the music treatment variable into all three possible dichotomous comparisons and conducted a series of 2 X 2 pair-wise comparisons of participants' sex X: (a) Emimen versus the control group, (b) Beasties Boys versus the control group and (c) Eminem versus the Beastie Boys. The means for BS and HS in these comparisons, by sex, are presented in table 1.

==Table 1 about here==

In all comparisons, we replicated the significant effects of participants' sex on both BS and HS, but we failed to find significant main effects for rap music on sexism.

However, we did find some evidence that was weakly supportive of *H3*. When we compared exposure to misogynistic rap directly to the control group, the interaction between rap and participants' sex was marginally significant for BS (Male *M*s = 11.1 vs. 12.24; Female *M*s = 9.89 vs. 9.2, control vs. Eminem), $F(1, 155) = 2.25$, $p = .13$), although it was insignificant for HS ($p = .75$). The interaction between participants' sex and non-misogynistic rap, however, was insignificant for both BS ($p < .20$) and HS ($p < .30$). Finally, when the control group is excluded and the two kinds of rap are compared directly to each other, participants' sex weakly mediates HS, $F(1, 148) = 2.01$, $p = .16$, but it no longer mediates BS ($p = .90$). According to the means shown in table 1, the interaction is caused by males scoring higher on HS in the Eminem condition compared to the Beastie Boys condition (*Ms* = 21.29 vs. 22.33) while females scores were lower in the Eminem condition (*M*s = 19.79 vs. 18.6).

Discussion

Exposure to rap, whether it was misogynistic or non-misogynistic, did not directly affect either BS or HS (*H1* and *H2*). Instead, participants' sex sometimes moderately mediated exposure effects (*H3*). Differential exposure effects were most powerful for BS when Eminem is compared directly to the control group and for HS when Eminem is compared directly to the Beastie Boys. In both comparisons, males became more sexist and females less sexist after exposure to misogynistic rap. These results, however, are also based on somewhat unreliable measures of sexism, so we prefer to emphasize our second study using validated measures of sexism.

Study 2

Method

Participants. Study 2 took place in the spring semester of 2002, and participants agreed to take part in the study in exchange for partial fulfillment of research participation requirements. We collected data on 192 undergraduates from the same school under identical experimental conditions. Most participants, as before, were males (53%) and also white (78%).

Design and procedure. We replicated our research design and procedures reported for study 1, but we measured sexism more rigorously using validated measures of ambivalent sexism (Glick & Fiske, 1996). According to Glick and Fiske (1996; Glick et al., 2000), sexism is ambivalent because it consists of two (positively correlated) dimensions, hostile (HS) and benevolent (BS). HS is akin to prejudice traditionally understood as an antipathy (Allport, 1954). One HS measure, for example, asks about agreement/disagreement with the claim that "women seek to gain power by getting control over men." Conversely, BS is more like paternalism; it is "a subjectively positive orientation of protection, idealization, and affection directed toward women (Glick et al (2000, p. 763)." An example of a measure of BS asks whether one agrees that "every man ought to have a woman whom he adores." In sum, whereas HS ideologically justifies male superiority and targets women who threaten male dominance, BS combines objectively inferior treatment of women with overtly positive assessments of (most) women.

Materials. We used the same two songs, *Kill You* and *Sabotage*, as stimulus materials for misogynistic and non-misogynistic rap.

Measures. Participants in the main study responded to a recommended twenty-two-item battery measuring Ambivalent Sexism (Glick & Fiske, 1996). Exactly half of the items measured BS and the other half measured HS. Answers to each question were recorded using six-point scales (0-5), ranging from "strongly disagree" to "strongly agree".[2]

Results

Measurement reliability. Factor and reliability analyses of participants' responses confirmed the reliable measurement of two dimensions of ambivalent sexism, BS and HS. We therefore combined the appropriate items into two additive indices (HS *M=25.46, SD=10.38, Alpha=.77*; BS *M=27.23, SD=9.71, Alpha=.84*).[3]

Exposure to Rap Music. We use 2 X 3 ANOVAs (participants' sex—1 = female, 2 = male X music condition—1 = control, 2 = Beastie Boys, 3 = Eminem) to examine exposure effects. As we found in the pilot study, participants' sex affects both BS, $F(1, 175) = 7.31$, $p < .01$, and HS, $F(1, 175) = 50.52$, $p < .01$. Unlike study 1, however, we also find significant main effects for exposure to rap music on HS, $F(1, 175) = 2.84$, $p = .06$ and a marginally significant interaction effect between participants' sex and exposure to rap for BS, $F(1, 175) = 2.23$, $p = .11$ (the interaction is insignificant for HS, $p > .50$). While the ANOVA for HS revealed a main effect for exposure to rap and the ANOVA for BS indicated that the difference between how males and females responded to exposure to rap approaches significance, the coding of the music condition in these

[2] We also measured several demographic variables theoretically predictive of sexism scores and planned on using them as covariates, but their inclusion did not affect our substantive findings or contribute to our conclusions so they were excluded.

[3] Only one item measuring BS did not load significantly on either dimension of sexism, so it was excluded from the BS scale. Our results are unaffected by this coding decision.

analyses precludes us from identifying whether this effect is caused by Eminem or the Beastie Boys, or both.

We start making these detailed analyses by presenting participants' mean BS and HS scores, by sex and experimental condition, in table 2. As indicated above, the data show significantly higher sexism scores in general for males than females (BS *M*s = 26.25 vs. 22.38, $p < .01$; HS *M*s = 30.12 vs. 20.18, $p < .01$), but more importantly they reveal consistently higher sexism scores for males after exposure to both kinds of rap. Conversely, females' sexism scores vary as a function of the type of rap and the measure of sexism. Females' sexism increased only when measured as BS and only if exposure to non-misogynistic rap is considered. Otherwise, females' sexism declined or remained constant after exposure to rap.

==Table 2 and Figure 1 about here==

Exposure effects revisited (H1 and H2): To test whether these exposure effects by condition and sex are significant, we conducted a series of 2 X 2 ANOVA where we disaggregated the music treatment variable into all three possible dichotomous comparisons, (a) Emimen versus the control group, (b) Beasties Boys versus the control group and (c) Eminem versus the Beastie Boys. Misogynistic rap did not have a main effect on either BS or HS in comparisons with the control group, but non-misogynistic rap was weakly significant in comparison to the control group for both kinds of sexism (BS, $F(1, 117) = 3.4$, $p < .10$; HS, $F(1, 117) = 3.01$, $p < .10$). In addition, the main effects of non-misogynistic rap on HS (but not for BS) replicated when it was compared directly to misogynistic rap, $F(1, 113) = 5.71$, $p < .05$ (*M*s = 28.67 vs. 23.33). We conclude that the main effect of exposure to rap music on HS in the original 2 X 3

ANOVA was due to listening to non-misogynistic rap rather than Eminem.

Mediating Effects Revisited (H3): We identified three instances when exposure was significantly mediated by participants' sex. Once was for BS comparing Eminem to the control group, $F(1, 120) = 3.17$, $p = .08$ (male *M*s = 23.81 vs. 28.29; female *M*s = 21.97 vs. 20.63, control vs. Eminem); another time was for HS when comparing the Beastie Boys to the control group, $F(1, 117) = 2.98$, $p = .09$ (male *M*s = 27.72 vs. 33.58; female *M*s = 21.30 vs. 21.32, control vs. Beastie Boys); and a third time was for BS when comparing Eminem to the Beastie Boys, $F(1, 113) = 3.72$, $p =. 05$ (male *M*s = 26.79vs. 28.29; female *M*s = 25.32 vs.20.63, Beastie Boys vs. Eminem). Overall, these findings indicate that participants' sex most strongly mediates reactions to misogynistic rap, at least for BS, but also that sex mediates reactions to non-misogynistic rap in the case of HS.

Discussion

Increased sexism was predicted to occur after exposure to misogynistic and perhaps non-misogynistic rap. There was minimal evidence that misogynistic rap directly affected sexism, but participants' HS and BS significantly increased after exposure to non-misogynistic rap, especially among males. Increased sexism after exposure to non-misogynistic rap but not misogynistic rap is both surprising and troubling because the music encountered was actually devoid of sexist lyrics. Nevertheless, the main effect of exposure to the Beastie Boys on sexism appears to be primarily driven by the reactions of male participants. While males' BS and HS increased after exposure, only females' BS increased. This suggests the need to further explore the prevalence of different dimensions of sexism in the lyrical content of rap.

Evidence also emerged to support our third hypothesis about mediated exposure effects, although the bulk of it is based on the effects of exposure to misogynistic music and then only for BS. We find that males' BS increased after exposure to Eminem, for example, but that females' BS decreased. In fact, the differential impact of misogynistic rap on the two sexes largely explains why we did not find a main effect for exposure to Eminem (compared to the control group); the mean for BS among the sample as a whole did not vary much across experimental conditions because the increase in males' sexism was partially cancelled out by the decrease in females' sexism. Thus, we find little reason to celebrate the lack of main effects for exposure to misogynistic rap.

However normatively displeasing these findings may be as a whole, they require further context. One important contextual factor to consider is that the magnitudes of these effects were always rather marginal. We did not report the eta squared statistic in the analyses above, but it never surpassed .06 for any of the main effects of rap or for any of the interactions between rap and participants' sex. In addition, we often relied on criteria for statistical significance that differs from the conventional one of $p < .05$. In other words, the overwhelming majority of participants' sexist attitudes can not be explained by our measures of exposure to rap.

General Discussion

Implications for general criticisms of misogynistic rap

The results of this research may be viewed as a partial victory for popular critics of misogynistic rap music. As many critics suspected, misogynistic rap primes more sexist attitudes in males. Most interestingly, it also primes more defensive ones in

females. Ironically, then, the response of our female participants to Eminem's *Kill You* provides some support for the argument that his lyrics are so absurd that the Slim Shady character essentially becomes a parody of unacceptable behavior (Doherty, 2000; Ross & Saxe, 2001). A caveat is that knowledgeable participants might have been influenced as much by the reputation of the rappers as they were by the content of the lyrics; the logic here is that criticism of a rapper as sexist becomes a self-fulfilling prophecy.

Our second noteworthy finding, that exposure to non-misogynistic lyrics also produces greater sexist attitudes, raises more troubling questions. Maybe a prior Beastie Boys song "*Girls*" is known to study participants and this past song is what primes participants' sexism. Perhaps aggressive sounding beats and not the lyrics are responsible for males' greater endorsement of sexist attitudes. Or, as we suggested, the entire genre of rap might be categorized in memory as sexist. Perversely, this latter possibility could mean that non-sexist rap is actually more likely to affect listeners' sexism because latent sexism is automatically activated by exposure and yet listeners are unaware of the need to self-monitor their reactions. This would explain why females' BS scores also increased after listening to non-misogynistic rap.

Implications for government censorship of rap music

Our finding that rap music can (at least temporarily) increase sexist attitudes is cause for concern, but this concern should not be mistaken as justification for an alarmist reaction. For one, the magnitudes of the exposure effects on sexism in this study were modest, so perhaps, at worst, exposure to rap matters only on the margins. Second, exposure to misogynistic lyrics is not required to produce sexist reactions, so it is unclear which lyrics, songs or artists would deserve greater scrutiny. Third, we think it makes

more sense to view rap music as arising from a larger society and cultural norms that encourage and foster misogyny and other anti-social behaviors rather than as a root cause of these behaviors (Richardson & Scott, 2002). Priming latent sexism is not the same thing as causing it. At worst, we would conclude that rap music might exacerbate pre-existing tendencies, particularly among males, but so too can other genres of music (rock, country) and varied forms of entertainment (television, movies, and sports). Last, our research does not indicate that exposure to rap influences actual behaviors, and that would be required before we would agree that censorship is a credible option.

Limitations of this Research and Future Directions

A logical research agenda to advance these findings would include experiments designed to more carefully isolate the effects of overtly misogynistic lyrics from its potential rival causes. Our study cannot conclusively determine whether merely rap or explicitly misogynistic rap is the root cause of the increased sexism. It is possible, for example, that any hard driving and aggressive beats inherently prime sexist responses, particular among males. This kind of rhythm, furthermore, is not unique to rap but crosses multiple genres of music.

In addition, the males in our study were all quite young, so regardless of the cause, any explanation might apply only or primarily to younger males. Yet, while some studies are fairly criticized for their reliance on "samples of convenience" (Sears, 1986), the use of college age participants is particularly desirable because they comprise the age group identified in popular critical theories of rap's effects. Nevertheless, future studies would benefit by including males of differing ages.

An additional limitation is that our sample is overwhelmingly white, so we are

unable to assess potential differential reactions by participants' race. While most rap music is largely a genre produced by blacks but consumed by whites, the music in this study was, ironically, produced by whites and heard by mostly whites. Thus, we are unable to speculate whether exposure effects would vary by the race of the performer and/or the race of the listener. A large sample study that can vary these characteristics of rap and its audience would be most helpful.

A final limitation is that the discernible and different effects of Eminem on male and female attitudes in the laboratory setting might not comfortably translate to a particularly coherent cumulative effect on society's collective attitudes toward women. We cannot conclude, for example, that these increases in sexist attitudes persist over time and have behavioral consequences. We need to gain a better understanding of whether single or repetitive exposure to misogynistic rap actually encourages violent acts against women. It is one thing to find a temporary increase in sexist attitudes among males that might only be a product of the greater momentary accessibility of sexism in working memory. It would be quite another to discover that males' sexist attitudes become chronic with repeated exposure and lead to pathological behaviors.

Appendix A: Pilot Study Sexism Measures

1. "Women rather than men are most likely to stay home and raise children."
2. "Men are increasingly likely to lose their jobs because of a woman's claim of sexual harassment."
3. "Women are increasingly likely to identify themselves as, 'feminists.'"
4. "Women who divorce their husbands, even after being unfaithful, are often awarded half of the couple's assets."
5. "In the United States military, women are not allowed to serve in combat roles."

Note: Items 2, 3 and 4 were later reverse-scored so that higher values always indicated greater sexism.

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Table 1 (Pilot Study): Benevolent (BS) and Hostile Sexism (HS) Scores, by Experimental Condition and Participants' Sex

	Males		Females	
	BS	HS	BS	HS
Control Group	11.10 (3.63)	22.08 (4.87)	9.86 (3.95)	18.86 (5.55)
Non-Misogynistic Rap	12.24 (3.86)	21.29 (6.05)	9.36 (3.43)	19.79 (4.36)
Misogynistic Rap	12.23 (3.95)	22.33 (4.34)	9.20 (3.17)	18.60 (3.91)
Overall	11.80 (3.81)	21.95 (5.03)	9.49 (3.52)	19.15 (4.66)

Note: Entries are means, standard deviations are in parentheses. Cell sizes range from N = 30 to N = 48.

Table 2 (Main Study): Benevolent and Hostile Sexism Scores,
by Experimental Condition and Participants' Sex

	Males		Females	
	BS	HS	BS	HS
Control Group	23.46 (8.72)	27.17 (7.55)	21.97 (9.86)	21.30 (10.54)
Non-Misogynistic Rap	27.90 (7.73)	32.92 (8.49)	25.31 (8.98)	21.32 (8.17)
Misogynistic Rap	28.58 (8.22)	29.69 (7.22)	20.63 (8.86)	18.23 (9.57)
Overall	26.25 (8.77)	30.12 (8.72)	22.38 (9.35)	20.18 (9.60)

Note: Entries are means, standard deviations are in parentheses. Cell sizes range from N = 22 to N = 33.

Figure 1. Exposure to Misogynistic Rap Music and Hostile (HS) and Benevolent (BS) Sexism, by Gender