CHAPTER 8

The Effects of Violent Music on Children and Adolescents

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the world with.	vide you something to face
	—Bruce Springsteen
Music can change the world.	—Ludwig van Beethoven
Music is spiritual. The music business is not.	—Van Morrison

Although much of the debate about the effects of media on youth revolves around television, music is very important to children and adolescents. Try to change the radio station in the car after your child has set it, and you will quickly see that they have very clear and deeply held opinions. In a survey of junior and senior high school students in northern California (Roberts & Henriksen, 1990), students were asked what media they would choose to take with them if they were stranded on a desert island. They were allowed to nominate a first, second, and third choice from a list including: TV set, books, video games, computer, newspapers, VCR and videotapes, magazines, radio, and music recordings and the means to play them. Because radio is almost exclusively a music medium for adolescents, radio and recordings were combined into a single "music" category. As Table 8.1 displays, at all grade levels, music media were preferred over television (which placed second overall), and this preference increased with age. Over 80 percent of the total sample nominated music as one of their first three choices. By eleventh grade, music was selected first by a margin of two to one.

Table 8.1
Which Medium Would Adolescents Take to a Desert Isle?

	Seventh Grade (%)		Ninth Grade (%)		Eleventh Grade (%)	
	TV	Music	TV	Music	TV	Music
First choice	26	40	29	44	26	52
First two choices	43	66	49	73	43	80
First three choices	57	82	65	86	61	90

Note: Figures are rounded to the nearest percentage

Source: Adapted from Roberts, D. F., & Henriksen, L. (1990, June). Music listening vs. television viewing among older adolescents. Paper presented at the annual meeting of the International Communication Association, Dublin, Ireland.

Music's importance to youth can also be measured by the amount of time they spend listening to it. One sample of Southeastern junior high school students spent an average of three hours per day listening to music and over four hours watching television (Brown, Campbell, & Fischer, 1986). More recent studies have shown similar high numbers for music. In a study of over 600 eighth and ninth graders from public and private schools in Minnesota (Gentile, Lynch, Linder, & Walsh, in press), children reported spending an average of almost 21 hours per week listening to music, compared to 25 hours per week watching television (Table 8.2). This pattern can also be seen across larger age ranges, although the amount of time spent with music increases with age (e.g., Roberts, Foehr, Rideout, & Brodie, 1999). However, it is likely that most studies underestimate the amount of time children and adolescents may listen to music, because music is so often a secondary background activity for many other activities, such as reading, studying, talking, driving, and doing housework. Music's tendency to slip between foreground and background raises questions about what kind of "listening" should be counted as true exposure. We believe background listening ought to be included, and for those who might disagree we offer this challenge: Simply turn off the "background" music when youth are studying, chatting, or doing chores and observe their

Research that addresses *all* listening, whether from radio or other sources and whether background or foreground, finds levels of exposure to music at least as high as to TV in late grade school and considerably *higher* in adolescence. For example, one survey required sixth and tenth graders to report how much time they had spent the previous day watching television, listening to

Table 8.2 Average Amounts of Media Use by Eighth and Ninth Grade Students (Hours/ Week)

	Boys and Girls		Boys		Girls	
	M	SD	M	SD	М	SD
Playing Video Games	9.0	11.9	12.9°	13.3	4.9°	8.6
Watching TV	25.3	15.4	27.4 ^b	16.4	23.2 ^b	14.0
Listening to Music	20.7	24.4	18.6	23.3	21.9	23.0
Reading for Pleasure	3.4	4.3	3.0 a	4.2	3.8 a	4.4

Note: M = mean, SD = standard deviation

Source: Adapted from Gentile, D. A., Lynch, P. J., Linder, J. R., & Walsh, D. A. (in press). The effects of violent video game habits on adolescent hostility, aggressive behaviors, and school performance. *Journal of Adolescence*.

the radio, and listening to audio recordings (Greenberg, Ku, & Li, 1989). Sixth graders reported 4.1 hours of TV viewing and 3.8 hours of combined music listening; tenth graders reported 3.9 hours of TV viewing compared to 4.9 hours of music listening.

Amount of listening is not uniform across all groups of youth. First, age makes a big difference: adolescents devote more time to music than schoolage children, and older adolescents devote more time to music than younger adolescents. Although many children begin listening to popular music early in the grade-school years (Christenson, DeBenedittis, & Lindlof, 1985), television consumes a much greater amount of time for younger children than does music. About the beginning of junior high school, however, this pattern begins to change. The early teen years mark a sharp increase in the amount of time kids devote to popular music, and the trend toward higher levels of music consumption continues through the end of high school.

Girls also tend to listen more than boys, at least once adolescence is reached. Although research on grade schoolers finds no significant sexcorrelated differences in amount of listening (Christenson & DeBenedittis, 1986; Lyle & Hoffman, 1972), this picture begins to change about the time children enter middle school. By high school, girls listen substantially more than boys do (Greenberg et al., 1989; Roberts & Foehr, in press; Roberts & Henriksen, 1990), and African American youth tend to listen more than whites (Brown, Childers, Bauman, & Koch, 1990).

^aMeans significantly different from each other at p < 0.05.

^bMeans significantly different from each other at p < 0.01.

^cMeans significantly different from each other at p < 0.001.

USES AND GRATIFICATIONS OF POPULAR MUSIC

At the simplest, most global level, people of all ages listen to music because it provides pleasure. For adolescents especially, the pleasure can be intense and tends to be associated with the most intense, "peak" experiences of life. Lull (1992, p. 1) has stated, "Music promotes experiences of the extreme for its makers and listeners, turning the perilous emotional edges, vulnerabilities, triumphs, celebrations, and antagonisms of life into hypnotic, reflective tempos that can be experienced privately or shared with others." Given the importance of music and its central role in adolescence, it is clear that it has a number of important effects. Yet although there has been concern for decades about possible deleterious effects of popular music, for most children, the effects are not deleterious. While this chapter cannot describe in detail the uses of music, we will describe briefly three major uses: affective uses, social uses, and the uses of lyrics (for a detailed review, see Christenson & Roberts, 1998). It also should be noted that the research on music videos appears to show different effects from music alone; thus music videos will be discussed later in this chapter.

Affective Uses

The major difference between popular music and other media lies in music's ability to enhance or modify mood. In a study of Swedish adolescents, Roe (1985) presented possible reasons for listening to music and asked students to indicate how often each applied to their listening. Factor analyses revealed three general trends: (1) atmosphere creation and mood control, (2) silencefilling and passing the time, and (3) attention to lyrics. Of the three types of uses, atmosphere creation and mood control emerged as the most important, with time-filling second and attention to lyrics a distant third. Summarizing the research on adolescent uses of music, Christenson & Roberts (1998, p. 48) suggested a principle they labeled "the primacy of affect." For most young people, music use is driven primarily by the motivation to control mood and enhance emotional states. Music's ability to communicate emotion and influence mood has been widely noted. Even preschoolers and infants as young as eight months can reliably discriminate "happy" and "sad" music (Gentile & Pick, under review; Gentile, Pick, Flom, & Campos, 1994; Gentile, Stoerzinger, Finney, & Pick, 1996; Sullivan, Gentile, & Pick, 1998). Studies of mood induction often use music in order to change people's moods (e.g., Kenealy, 1988; Pignatiello, Camp, Elder, & Rasar, 1989; Pignatiello, Camp, & Rasar, 1986). Because of the affective efficacy of music, when adolescents want to be in a certain mood, when they seek reinforcement for a certain mood, when they feel lonely, or when they seek distraction from their troubles, music tends to be the medium of choice to accomplish the task.

While both males and females report using music to affirm or manage their

moods, there are some consistent differences in their goals. Research shows that males are more likely than females to use music as a tool to increase their energy level and seek stimulation—that is, to get "pumped up." In contrast, females are more likely than males to listen to lift their spirits when they're sad or lonely, or even to dwell on a somber mood (Arnett, 1991a; Larson, Kubey, & Colletti, 1989; Roe, 1985; Wells, 1990). Although they do so less commonly than females, males will also match music with their negative moods. In the same way that girls often listen to sad songs when they are sad, many heavy metal fans say they listen to angry music when they are angry. In one study, a typical heavy metal fan said he sought out "full-blown thrashing metal" when he was "mad at the world" (Arnett, 1991a, p. 82).

Social Uses

Some have suggested that while the emotional uses of popular music are important, the social uses and meanings provide the real key to understanding its niche in the lives of youth (Frith, 1981; Lull, 1987; Roe, 1984, 1985). For this discussion, we suggest two divisions within the broad category of social uses: "quasi-social" uses and "socializing" uses. By quasi-social, we mean listening that occurs alone but still serves goals and needs related to social relationships. Perhaps the best example of this is when music replaces or invokes the presence of absent peers in order to relieve feelings of loneliness. For example, in a study of college students, two-thirds reported listening either "somewhat frequently" or "very frequently" to "make me feel less alone when I'm by myself" (Gantz, Gartenberg, Pearson, & Schiller, 1978). This and other studies suggest that this quasi-social use is more common for girls than for boys (Larson et al., 1989; Roe, 1984). Solitary music listening may also perform a number of "delayed" social uses (Lull, 1987), by preparing youth for future peer interactions and relationships. There is a strong connection between interest in popular music and peer orientation. To a large extent, those who know nothing about pop culture or current music trends are relegated to the periphery of youth culture. Conversely, adolescent pop music "experts" tend to have more friends and enjoy enhanced status in the adolescent social structure (Adoni, 1978; Brown & O'Leary, 1971; Dominick, 1974).

By socializing uses, we mean two broad types of uses: (1) those that occur within the context of a social occasion, and (2) those that help to define social boundaries (Christenson & Roberts, 1998). Social occasions may take various forms (Lull, 1987). In romantic dyads, music is used to accompany courtship and sexual behavior. In friendships, music often provides a basis for the initial bond, and often helps to maintain the relationship. In larger gatherings, such as parties, dances, or clubs, music reduces inhibitions, attracts attention and approval, provides topics for conversation, and encourages dancing.

Music also works at a more diffuse social level to define the important subgroups in adolescent culture and to identify who belongs to them. Although it is far from the only cue about group membership—school performance, extracurricular interests, social background, clothing, and other elements of personal style figure in too—an adolescent's music affiliation says much about his or her social affiliation. Popular music at once expresses, creates, and perpetuates the essential "us-them" distinctions that develop between groups. The most typically discussed us-them distinction is between youth and adults, although this is not likely to be the most important one. For many youth, the type of music one listens to helps to define oneself and one's in-group. *Music style*, defined as the selection of a certain type of music and a personal style to go with it, is one of the most powerful identifying markers in the school crowd structure. Within any high school it is usually easy to classify many subgroups of adolescents according to their music preferences (e.g., "metalheads," "goths," "alternatives," "hip-hop," "punkers," "rastas," etc.). These labels may change as music changes, but the underlying processes of adolescent subcultures are likely to remain the same.

The social uses of music make a great deal of sense when considered with reference to the developmental tasks at different ages (for details see Gentile & Sesma, chapter 2, this volume). In middle childhood, especially after age eight, children begin to become more interested in popular music. As we have seen, this interest increases through adolescence. Two of the key developmental tasks of middle childhood are (1) to learn how to be accepted by peers and to build loyal friendships, and (2) to consolidate the self-concept (especially in terms of "which group do I belong to?"). Popular music serves these goals very well. As has been mentioned, popular music often can serve as the initial basis for friendships, and is important for peer acceptance (e.g., Adoni, 1978; Brown & O'Leary, 1971). In adolescence, two key developmental tasks are (1) to learn to build intimate relationships (both same-sex and cross-sex), and (2) to develop a personal identity (in terms of "how am I different from others?"). Popular music continues to serve these goals well, by becoming part of the social backdrop for exploring feelings of intimacy and by defining in-groups and out-groups along lines of musical preferences.

The Uses of Music Lyrics

When asked why they like to listen to music, youth rarely list the lyrics as the main reason. Usually it is something about the "sound" of the music that attracts them. However, lyrics are far from irrelevant—they are mentioned as a primary gratification by a significant number of youth and a secondary gratification by most (Gantz et al., 1978; Roe, 1985). In one study (Rouner, 1990), high school students were asked to rank music against several other possible sources of moral and social guidance, including parents, teachers, friends, church leaders, and coworkers. Sixteen percent ranked music among the top three sources of moral guidance, and 24 percent placed music in the top three

for information on social interaction. For better or worse, then, lyrics are often attended to, processed, discussed, memorized, and even taken to heart.

Given the controversy surrounding antisocial themes that are sometimes present in heavy metal and rap lyrics, it is important to note that heavy metal and rap fans report much higher levels of interest and attention to lyrics than do teens in general (Arnett, 1991a; Kuwahara, 1992). Two general patterns seem to emerge from the research on attention to lyrics: First, the more important music is to an adolescent, the more importance he or she places on lyrics relative to other elements of music gratification. Second, attention to lyrics is highest among fans of oppositional or controversial music (whether it be 1960s protest folk or rock or the heavy metal and rap of today). In other words, the more defiant, alienated, and threatening to the mainstream a music type is, the more closely its fans follow the words (Christenson & Roberts, 1998).

THE EFFECTS OF VIOLENT MUSIC ON YOUTH

Most of the criticism aimed at current popular music stems from the assumption that "content" (i.e., the attitudes, values, and behaviors portrayed in lyrics) may influence how young listeners think and act. Not surprisingly, it is a concern that emphasizes the negatives, such as violence, misogyny, racism, suicide, Satanism, and substance abuse (Carey, 1969; Christenson & Roberts, 1998; Fedler, Hall, & Tanzi, 1982; Roberts, Henriksen, & Christenson, 1999). Articles have even been written with headlines like "Hard rock music creates killer mice!" based on high school science-fair experiments in which groups of mice were trained to run mazes. Groups of mice listened to classical music, hard rock, or no music. The classical mice became faster in running the maze, whereas the hard rock mice became slower. The student performing the study stated, "I had to cut my project short because all the hard-rock mice killed each other. . . . None of the classical mice did that" (Eaton, 1997; Health, Wealth, & Happiness, n.d.).

Regardless of the merits of such alarmist reports, it is difficult to deny that music has become more aggressive and edgy over the decades. In 1958, the Everly Brothers sang, "When I want you in my arms, all I have to do is dream." Twenty-eight years later, the message had been simplified to, "Hey, we want some pussy" (2 Live Crew, 1986). Claims that popular song lyrics pose a danger implicitly assume that young people interpret songs in much the same way that adult critics do. That is, for violent lyrics to promote youth violence or for substance use portrayals to encourage experimentation with illicit drugs, young audiences presumably must find violent or substancerelated messages in the songs. Indeed, to be truly "influenced," young people may need to go a step farther and connect such messages to their own lives. The problem with such assumptions is that several decades of communication research shows quite clearly that lyric interpretation is as much a process of construction as of recognition or discovery. Thus, what young people make of popular songs depends not only on what the lyric brings to them, but also on what they bring to the lyric.

Given the rhetoric that controversies often breed, it is perhaps not surprising that many people assume that the idea of media effects is synonymous with the idea of "massive and uniform" effects. That is, many people assume that if media have an effect, the effect would be seen by showing that media messages influence large numbers of people in the same ways. The music literature does not support this conception of media effects, but this may not be the most productive way to conceptualize media effects. A focus on massive, uniform effects confuses "massive" and "uniform" with "important." Effects do not need to affect large numbers of people to be important. Effects may vary for different people, but still be important. Research has found that different subgroups interpret music lyrics in different ways. Yet, this does not necessarily make the effects unimportant. Many studies seek to find a 10 percent effect on a full population (massive, uniform effects). Yet those that seek to find a 100 percent effect on a specifiable subgroup that may only comprise 10 percent of the population (conditional effects; Chaffee, 1977) can also document subjectively important media effects. Our approach to media effects presumes that important effects need not and probably do not extend to a large proportion of the total audience. Rather, listeners respond in terms of various social, psychological, and physical conditions that influence how they use music, how they interpret messages, and whether, when, and how they act on what they have learned. This approach also can fit within a risk factor approach (Gentile & Sesma, chapter 2, this volume), in which children who are already at risk for suicide or violence may increase their risk by heavy use of music extolling those themes. However, for children without preexisting risk factors, or for those who have a number of protective factors, music with themes of suicide or violence is likely to have little short-term effect. There certainly could be long-term, cumulative effects (such as desensitization), but more research is needed to look for these types of long-term effects.

Heavy Metal Music

A number of correlational studies report positive associations between exposure to heavy metal music and a variety of troublesome attitudes and behaviors. Heavy metal music in particular has a high proportion of violent, sexual, and misogynistic themes. Fans of heavy metal music do tend to possess different characteristics from other youth. With regard to school, heavy metal fans report more conflict with teachers and other school authorities and perform less well academically than those whose tastes run more to the mainstream (Christenson & van Nouhuys, 1995; Hakanen & Wells, 1993). They tend to be distant from their families (Martin, Clarke, & Pearce, 1993) and are often at odds with their parents. When relationships with parents are

described as satisfactory, it is usually because the parents let the children go their own way (Arnett, 1991a). At the same time, there is no evidence that heavy metal fans see themselves as socially isolated. They are just as satisfied with the quality of their peer relationships as nonfans are (Arnett, 1991a). If anything, the peer group exerts a more powerful influence on heavy metal fans than on most other adolescents (Gordon, Hakanen, & Wells, 1992).

According to Arnett (1991a, 1991b), hard-core heavy metal fans tend to be driven by a generalized tendency to seek sensation and thrills and a need to engage in a variety of risky behaviors, more or less "to see what it would be like." In accord with this thesis, he reports differences between heavy metal fans and nonfans not only in their expression of sensation-seeking motivations generally but also in their self-reports of specific reckless behaviors, including drunk driving, casual sex, and marijuana and cocaine use. Other research has found a similar connection between risky, reckless attitudes and behavior and the choice of heavy metal music (Martin et al., 1993). Youth in juvenile detention were three times as likely as regular high school students to be metal fans (Wass, Miller, & Reditt, 1991).

Hansen and Hansen (1991) found that the amount of time college students listened to heavy metal was correlated with a "macho" personality. Specifically, exposure to heavy metal correlated positively with "male hypersexuality" (as indicated by the level of agreement with the idea that "young men need sex even if some coercion of females is required to get it") and negatively with general respect for women. Christenson and van Nouhuys (1995) report a connection between heavy metal and interest in other-sex contact as early as age 11.

Concern has also been expressed over the potential impact of heavy metal music's often dismal, depressed view of the world and its depiction of depression and suicide. Arnett (1991a) writes:

One can hear an echo in [heavy metal themes] of concerns with social issues from the music of the 1960's, but with this difference: the songs of the sixties often lamented the state of the world but promised a brighter future if we would mend our ways; heavy metal songs often lament the state of the world but do not provide even a hint of hope for the future. Hopelessness and cynicism pervade the songs. (p. 93)

Martin's and his colleagues' data (1993) from more than 200 Australian high school students showed that those who preferred heavy metal or hard rock music reported feelings of depression, suicidal thoughts, and deliberate infliction of self-harm more frequently than others in the sample. For instance, 20 percent of the male and more than 60 percent of the female heavy metal/hard rock fans reported having deliberately tried to kill or hurt themselves in the last six months, compared with only 8 percent and 14 percent, respectively, of the pop music fans.

Do these various findings support the notion of a "heavy metal syndrome,"

that is, of a constellation of related traits with heavy metal as the focal point? Probably not. If there is a "syndrome" at work here, it is a "troubled youth syndrome," not a heavy metal syndrome. Leaving aside for now the question of whether popular music exercises any influence on adolescents' values and behavior, assuredly the consumption of heavy metal is not what brings together the various "at-risk" characteristics with which heavy metal fandom is associated. The best way to phrase the relation is to say that white adolescents who are troubled or at risk gravitate strongly toward the style of music that provides the most support for their view of the world and meets their particular needs: namely, heavy metal.

The point can be further clarified, perhaps, by juxtaposing these statements: (1) Most heavy metal fans are not particularly troubled or at risk, but (a) those youths who are troubled or at risk tend overwhelmingly to embrace heavy metal. In other words, whatever percentage one uses to estimate the proportion of heavy metal fans in the total adolescent population, they surely number in the tens of millions. Most of these young people are not on drugs, not in jail, not failing in school, not depressed, perhaps not even particularly at odds with their parents (except maybe when it comes to music). Arguing the other way, however, if we know a youth is white, male, 15 years old, drug involved, and in trouble with the law, then the odds are *very high* indeed that his music of choice will be some form of hard rock or heavy metal.

Our rejection of the idea of a true heavy metal syndrome should not be taken to imply that heavy metal music plays only a peripheral role in the lives of its devotees. Heavy metal fans are an especially committed, devoted audience. Those who love the genre are highly absorbed in their musical identity, in terms of both listening time (Wass, Miller, & Stevenson, 1989) and a variety of other music-related behavior. Arnett (1991a) reports that high school students describing themselves as "metalheads" spent more than twice as much money on albums, concerts, and music equipment as a comparison group of nonmetal fans. They also tended to express very high levels of personal identification with their favorite performers, were more likely to say lyrics are important to them, claimed a deeper understanding of lyrics, and were more likely than other youth to adopt their favorite musicians as role models. As Arnett points out, heavy metal plays a crucial role in the lives of the alienated and disaffected youths who seek it out; for many such youths, listening to heavy metal is what matters to them most. As has been noted in other chapters in this volume, the question of "initial causality" is probably not the important question. That is, whether heavy metal music is the thing that starts children becoming more troubled, or whether alienated youth start to like heavy metal (which is what research suggests), is probably not the best question to ask. A better question might be how will music with antisocial themes affect children who are already at risk for antisocial behaviors? It does not matter whether music started the cycle; it matters that the themes encountered in the music may help to perpetuate it. That is, the music may reinforce aggressive and antisocial thoughts and feelings, and thus make those thoughts and feelings more likely to occur in the future. Heavy metal music may thus be a risk factor, affecting most those who are already most at risk.

Violent Music Lyrics

As shown above, a number of correlational studies suggest a connection between the types of music youth listen to and a wide range of troublesome attitudes and behaviors. Some of these studies focus on aggressive and violent attitudes. For example, college students who prefer rap and heavy metal music report more hostile attitudes than students who prefer other styles of music, such as country, alternative, dance/soul, or adult contemporary (Rubin, West, & Mitchell, 2001). Fans of rap music tend to be more distrustful than fans of other styles, and heavy metal fans tend to hold more negative attitudes toward women.

There have been few experimental studies of the effects of violent music lyrics on listeners. Some have found no effects of lyric content on aggressionrelated variables (Ballard & Coates, 1995; St. Lawrence & Joyner, 1991; Wanamaker & Reznikoff, 1989). Some of these studies have had methodological problems with indecipherable lyrics or confounds with general arousal. However, contrary to suggesting that music has no effect, these studies have provided evidence that the effects may be more subtle than we typically expect. For example, St. Lawrence and Joyner (1991) set out to test whether listening to sexually violent heavy metal would increase acceptance of gender-role stereotypes and sexually violent behavior. Groups of undergraduate males heard either sexually violent heavy metal rock, Christian heavy metal rock, or easylistening classical music. A month before and immediately after listening, the students answered a questionnaire measuring gender-role stereotyping, adversarial sexual beliefs, acceptance of interpersonal violence, rape myth acceptance (the idea that women invite and/or enjoy rape), and self-reported sexual arousal. The somewhat surprising result was that it did not matter whether participants heard sexually violent heavy metal or Christian heavy metal. Relative to classical music, exposure to either type of music produced more negative attitudes toward women. In other words, the lyrics did not make a difference, but the heavy metal musical form did. While there is reason to wonder whether the students really "heard" the lyrics, the larger issue may be that the sound of the music carries a great deal of information independent of lyrical content. "Angry-sounding" music may increase aggressive thoughts and feelings, regardless of the specific lyrical content. Christenson and Roberts (1998) argue that the "sound" of heavy metal serves to cue more aggressive schemata, and thus increase the likelihood of aggressive responses.

Others studies have shown lyric-specific effects with a variety of types of measures (e.g., Anderson, Carnagey, & Eubanks, 2003; Barongan & Hall, 1995; Wester, Crown, Quatman, & Heesacker, 1997). Barongan & Hall

(1995) had male college students listen to misogynous or neutral rap music and subsequently view three vignettes (neutral, sexual-violent, or assaultive). They then chose one of the three vignettes to be shown to a female confederate. Students who had listened to the misogynous rap music chose to have the female view the assaultive vignette significantly more frequently than students who listened to neutral rap music did. Students who showed the violent vignettes reported that the women had been more upset by them than did students who showed the neutral vignettes (although the confederates had been trained not to react to the vignettes). This pattern of results suggests that music with misogynous lyrics may facilitate sexually aggressive behavior. Wester et al. (1997) exposed male undergraduates to one of the following: (1) sexually violent rap music and lyrics, (2) the same music without lyrics, (3) sexually violent lyrics without music, or (4) a no-music control condition. While there were no differences in the general amount of negative attitudes toward women among the four groups, the students exposed to violent lyrics (groups one and three) were significantly more likely to view their relationships with women as more adversarial.

Anderson and his colleagues (2003), using the theoretical framework of the General Aggression Model (described in chapter 5), hypothesized that violent lyrics would be most likely to show short-term effects on aggressive emotions and aggressive thoughts. These hypotheses were confirmed in a series of five studies with undergraduate students (both males and females). The songs were matched for style but varied in terms of violent content (e.g., violent versus nonviolent songs from the same rock group, humorous violent versus humorous nonviolent songs). Across the studies, violent song lyrics were associated with increases in aggressive thoughts. Aggressive thoughts were measured in a number of manners that are typical when studying aggressive cognition. In one experiment, students who heard the violent song read aggressive words faster than they read nonaggressive words, thus showing priming of aggressive concepts. In two more experiments, students who heard the violent song were more likely to complete word fragments as aggressive words than as nonaggressive words (e.g., completing KI_ as "kill" rather than as "kiss"). Across the studies, violent song lyrics were associated with increases in hostile and aggressive feelings. These effects were shown across a variety of songs and, importantly, were not attributable to differences in arousal. As the authors note, however, the types of hostile thoughts and feelings that were primed by violent lyrics are likely to be a short-term effect, and may be easily disrupted if some other nonviolent event occurs.

Suicides and Shootings

It is a huge leap from the short-term outcomes demonstrated in the research on the effects of popular music to the claims often made in public discussions about music's role in teenage suicides and recent school shootings.

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Yet certain facts surrounding these tragic events have led to charges that popular music—and other elements of popular culture such as violent movies and video games—are at least partially to blame (Christenson & Roberts, 1998; Egan, 1998; Litman & Farberow, 1994; "Rock on Trial," 1988; Vance v. Judas Priest, 1990). A few comments on the issue are in order here. It is true that a number of adolescent suicide victims have spent the hours immediately prior to taking their lives immersed in heavy metal music. It is also true that several of the young people involved in recent school shootings have been avid fans of Marilyn Manson and other "goth rock" performers. However, that exposure to popular music can operate as "the" cause of such drastic behaviors is unlikely. Millions of heavy metal and "gangsta rap" fans spend hours with their chosen music genres and never threaten others or themselves. Moreover, most researchers concerned with the causes of suicide and violence point to a broad array of risk factors unrelated to popular culture (e.g., depression, access to guns, substance abuse, etc.) that seem to be precursors of such drastic acts. Indeed, these conditions have characterized most or all of the incidents at issue in the recent debate (Berman & Jobes, 1991; Egan, 1998; Levy & Deykin, 1989).

This is not, however, to absolve popular music from a role in at least some suicides and violent incidents. Recall earlier points about the uses of music and about heavy metal fans in particular. First, one of the more important functions of popular music for adolescents is what we have called the "primacy of affect" (Christenson & Roberts, 1998). Teens (and most age groups) frequently use music as a tool to maintain or change particular moods, and they readily admit that music has direct, profound effects on their emotions. Moreover, some of the research on music's impact on mood suggests what might be called an "amplification effect," a strong tendency for music to heighten whatever emotional state a listener brings to a listening situation—including anger and depression (Gordon et al., 1992; Wells, 1990). As noted earlier, although it is not legitimate to assume that all fans of extreme music are "troubled," kids who are troubled are very likely to be fans of extreme music. There is substantial evidence that adolescents who are depressed, angry, alienated, experiencing suicidal thoughts, having family problems, abusing drugs or alcohol, or having difficulty at school constitute a group that is particularly drawn to the sort of angry, nihilistic music that celebrates these "troubled" states and traits. These factors, when coupled with the high levels of identification with the music and its performers, seem at the very least cause for reason to be concerned.

To immerse oneself in angry, desperate, depressing music is a poor strategy for coping with anger, despair, and depression. Neuroscience suggests that "brooding," or dwelling on one's current emotional state, is more likely to deepen the state rather than to alleviate it (Goleman, 1995). Litman and Farberow (1994) contend that "addictive and antisocial behaviors" are at first adopted as *alternatives* to suicide, but, when they fail, and if conditions worsen,

such behaviors may actually function as *contributory causes* of suicide. Similarly, if a preoccupation with heavy metal music is carried to an extreme, it too may become an addictive, antisocial behavior—a form of "media delinquency" (Roe, 1995)—and ultimately a contributor to the problem rather than a solution. For the small minority of kids who are already alienated and disturbed, extreme music may be another risk factor for violence or suicide.

Summary

Taken together, these studies suggest that the main effects of music may be carried by the emotional "sound" of the music rather than by the lyrics. The effects of violent music lyrics do not appear to be nearly as powerful as the effects of other, more visual, violent media. In fact, this may be because lyric content may be difficult to understand, may be interpreted differently by different people, or because visual images may be a more direct and powerful communicator. As is discussed by Comstock & Scharrer (chapter 11, this volume), visual images of violence or danger appear to be more primary in terms of their ability to elicit fear reactions than verbal or cognitive descriptions of violence or danger. These considerations make it necessary to question whether violent music videos have a greater effect on viewers than violent music alone has on listeners. In short, the answer is yes, violent music videos appear to have a much more powerful effect.

MUSIC VIDEOS

Although music has been paired with visual displays for hundreds of years, the form that we call the music video was launched in 1981 with the beginning of the MTV network. Music videos began as commercial advertisements to help record sales, but they are now a commercial item in themselves and are an increasingly popular item for sale and rental at home video outlets. The vast majority of preadolescents and adolescents watch music videos. Threequarters of 9- to 12-year-olds (Christenson, 1992a) and 80 percent of 12- to 14-year-olds report watching music videos at least occasionally. In a national random sample of parents of 2- to 17-year-olds, two-thirds (65 percent) of parents reported that their children at least occasionally watched music videos on TV (Gentile & Walsh, 1999). Despite these statistics, music video viewing occupies relatively little time compared with music listening. Most published reports set the average amount of viewing between 15 and 30 minutes a day (Christenson, 1992a; Kubey & Larson, 1989; Leming, 1987; Wartella, Heintz, Aidman, & Mazzarella, 1990). Interest in music videos appears to peak early in adolescence, and drop off into the high school years, even as overall interest in music continues to rise.

When asked about their reasons for watching music videos, the "music" is the most frequently mentioned gratification (Christenson, 1992a; Sun & Lull, 1986). However, adolescents offer many different uses and gratifications beyond appreciation of the music itself. Brown and her colleagues (1986) presented adolescents with 19 separate reasons for watching music videos. The students used a three-point scale (from "a lot" to "not at all") to indicate how much each reason applied to them. The original 19 were reduced statistically to a list including diversion, attention to lyrics, trend surveillance (e.g., fashion, dance), "make me wish I were like some of the characters," and so forth. In general, the results suggested that personal diversion and interpretation of lyrics are more important than either social uses or the seeking of information and guidance.

Over half (53 percent) of music videos include violent portrayals (NTVS, 1998). There are a number of reasons to expect that violent music videos may have a greater effect than violent music (with no visual component). The most obvious reason, of course, is the presence of visual information. The visual images and narratives of music videos clearly have more potential to form attitudes, values, or perceptions of social reality than does the music alone because they add additional information and rely less on imagination. Second, even though less time is spent watching music videos than listening to music, the fact that the time is spent watching and not merely listening means that music video viewing is more likely a foreground than a background activity. If the eyes are directed to a screen, less attention can be given to accompanying activities such as reading, studying, working, or socializing. Third, while studies of music lyrics have shown that lyric intelligibility and interpretation can vary across different listeners, much less interpretation is needed to understand a violent image. Even if the "story" in a video is inscrutable, it is difficult to miss such visual standbys as threatening displays of weapons or fighting. Fourth, the "meaning" of the song as shown in the video can become self-reinforcing—if viewers listen to the song after seeing the video, they are likely to "flash back" to the visual images from the video (Took & Weiss, 1994). Finally, we should not forget that the small average amount of time spent with music videos conceals the range of responses. Although adolescents average less than 30 minutes a day viewing music videos, surveys regularly reveal a segment of 5 percent to 15 percent who watch them for several hours a day. These highly absorbed viewers obviously stand a much greater chance of being influenced.

Although research on the effects of violent music videos is still in the early stages, the findings to date seem to parallel the effects of violent television. There appear to be effects on aggressive emotions, attitudes, and behaviors. Hansen and Hansen (1990a) showed college students a set of videos with varying levels of sex and violence and found that higher levels of violence not only produced more negative responses to the video and song, but stimulated a host of intense negative emotions. As violence went up, students said they felt less happy, more fearful, and more anxious and aggressive.

Videos with many violent images have been shown to increase aggressive

attitudes, including antagonism toward women and acceptability of violence both for themselves and in others (Greeson & Williams, 1986; Hansen & Hansen, 1990b; Johnson, Jackson, & Gatto, 1995; Peterson & Pfost, 1989). In a study of seventh and tenth graders, those who viewed 30 minutes of music videos with high concentrations of sex, violence, and antiestablishment themes showed higher approval of premarital sex than did similar participants who viewed 30 minutes of videos randomly taped off of the air. Among tenth graders, these videos also reduced disapproval of violence (Greeson & Williams, 1986). Peterson and Pfost (1989) showed undergraduate males collections of music videos that varied in both eroticism and violence, resulting in four stimulus types: erotic/violent, erotic/nonviolent, nonerotic/violent, and nonerotic/nonviolent. Of the four types of content, only the violent images had much of an effect: Males who watched violent videos scored higher than other groups on measures of negative affect and "antagonistic orientation toward women."

These studies could be criticized for not disguising the intent of the study, therefore perhaps influencing the results. However, studies that have disguised the intent more carefully show similar results. For example, Johnson et al. (1995) showed identical groups of 11- through 16-year-old lowerincome African American boys either eight violent rap videos or eight nonviolent rap videos, ostensibly as part of a memory test. After completing the "memory study," participants moved on to a second study of "decision-making skills" in which they answered questions about two brief stories. One story described an incident in which a young man physically attacks both his girlfriend and an old male friend of hers after seeing the two exchange a friendly hug and kiss. The second scenario involved an exchange between two old high school friends, one of whom is now working hard attending college, the other of whom drives a BMW and wears nice clothes and jewelry, with no indication of how he can afford such nice things. The results indicated an effect of videos on both approval of violence and academic aspirations. Those who had viewed the violent videos were more likely than those in either the nonviolent video group or the no-video control group to condone the attack against the girl's old friend and to say that they would have done the same thing. Boys who watched either violent or nonviolent rap videos were less likely than those in the control group to want to be like the young man who was attending college or to believe that he would ever finish school.

Other studies using this sort of two-phase experimental design have also found that music video content can alter viewers' subsequent assessments of other people and other people's behavior. Hansen and Hansen (1990b) gave university students the impression that they were to evaluate two applicants for a job hosting a TV show about rock music. While waiting for the job interview to begin, groups of students killed time by watching either three antisocial or three neutral videos. Next, the students "accidentally observed" what they (incorrectly) believed to be a real event in which one job applicant,

while telling a joke to the other, was brusquely warned to "settle down" by an authority figure, who then left the room. Half the students in the violent video condition and half in the neutral condition then saw the rebuked "job applicant" make an obscene gesture toward the retreating authority figure; the other half saw him merely adjust his clothing. Subsequently, all students saw a taped interview—which they thought was live—of the two job applicants, then completed a questionnaire indicating the degree to which each applicant was someone they would like personally, and evaluated each applicant on a number of adjectives (e.g., honest/dishonest, polite/impolite, etc.).

Students who saw the neutral videos liked the job applicant less and ascribed fewer positive traits to him if they had seen him make an obscene gesture as opposed to simply adjusting his clothing. For those who watched the antisocial videos, however, evaluations of the job applicant were the same regardless of whether he had made the gesture; that is, the students liked him no less when he made the gesture than when he did not. In other words, a relatively brief exposure to antisocial videos essentially cancelled out (desensitized) the natural tendency to dislike those who exhibit rude, defiant behavior.

In a study of third through fifth grade children (Gentile, Linder, & Walsh, 2003), children who report watching MTV more regularly also report getting into more physical fights than children who do not watch MTV regularly. More importantly, peers and teachers also report differences in the children's observed behaviors at school. Children who watch MTV more regularly are rated by their peers as significantly more verbally aggressive, more relationally aggressive, and more physically aggressive than children who do not watch regularly. They are also rated by their teachers as significantly more relationally aggressive, more physically aggressive, and less prosocial (helpful). These ratings are significant because it is unlikely that peers and teachers would know how regularly others watch MTV.

CODA: A NOTE TO PARENTS

Music is the shorthand of emotion.

—Leo Tolstoy

Does all this mean that the booming bass and screeching guitars that parents hear behind their children's bedroom doors or the green-haired, leathered, and pierced dervish whirling across the music video screen are turning young people into monsters? Generally not. Even violent music does not seem to have the same effect as violent television and video games. Violent music videos, in contrast, may have an effect of similar size to that of violent television (chapters 4 and 11, this volume), although there is much less research on the effects of violent music and music videos than there is on violent TV, movies, and video games.

When we are asked by concerned parents whether they should be worried

about the music their children are listening to, we respond with the following questions. Are your child's grades good, or have they been slipping? Is your child's mood generally angry or depressed? Do you like your child's friends? If you like your child's friends and his/her grades are fine, then there's probably very little to worry about from the lyric content of the songs he/she likes. However, it is perhaps worth remembering that the main power of music may be the power to change or maintain emotional moods. Thus, if your child is listening to angry-sounding music for three hours each day, that may signal a reason for concern. It may be likely that your child is angry about something and is dwelling on those feelings. At the least, all that angry music is not likely to make him/her less angry.

That said, for most kids, most of the time, music is a source of pleasure (even angry music!). They listen not to analyze lyrics and learn about the world, not to sort out emotions and feelings, not to facilitate social interaction, but because they like it. To be sure, popular music does teach them things, does help them to sort out emotions and feelings, does facilitate social interaction. It is, as we have noted, the medium that matters most to adolescents, and not least because it addresses issues that are central to their developmental stage—love, sex, loyalty, independence, friendship, authority—with a directness they often do not get from adults. Although many teenagers will discuss sensitive personal issues with the significant adults in their lives, just as many will avoid such discussions, opting instead for what they perceive as more legitimate sources—other youth, but also the culture of youth. For most adolescents, popular music functions not just as equipment for living, but as essential equipment for living.