The Relationship between Sensation Seeking and the Preference for Rap Music of Young Offenders

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THE RELATIONSHIP BETWEEN SENSATION SEEKING AND THE PREFERENCE FOR RAP MUSIC OF YOUNG OFFENDERS

By

Kie Yamada

A THESIS

Submitted to the Faculty of the University of Miami in partial fulfillment of the requirements for the degree of Master of Music

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THE RELATIONSHIP BETWEEN SENSATION SEEKING AND THE PREFERENCE FOR RAP MUSIC OF YOUNG OFFENDERS

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The purpose of this study was to investigate the relationship between sensation seeking and the preference for rap-music stimulation of young offenders. In the initial pilot study 18 participants rated the stimulation level of the music and lyrics for 12 pieces of rap music. Based on participants’ responses, four pieces of rap-music categories were selected for the main study, representing the category of: 1) high stimulation with aggressive lyrics (HSAL), 2) high stimulation with nonaggressive lyrics (HSNL), 3) low stimulation with aggressive lyrics (LSAL), and 4) low stimulation with nonaggressive lyrics (LSNL). In the main study, 55 students were recruited from a juvenile detention hall, which was an all-male facility for ages 13 to 18. All participants completed a demographic questionnaire and a Brief Sensation Seeking Scale (BSSS). Participants then rated their preference for each of the four musical selections. Finally, participants indicated their most liked and least liked rap selections as well as a narrative explanation. The BSSS scores were analyzed to determine the participants’ characteristics of sensation seeking regarding four subscales: 1) experience seeking, 2) boredom susceptibility, 3) thrill and adventure seeking, and 4) disinhibition. The results of BSSS and preference scores were analyzed to determine the relationships between sensation seeking and participants’ preference for the different stimulation levels of rap music. The results of the present study statistically significantly indicated that most participants preferred
aggressive lyrics, regardless of the sensation-seeking level and music-stimulation level. The narrative responses appeared to support the significance of aggressive lyrics as participants reported that they were able to identify themselves with the lyrics. The preference for aggressive lyrics, as validated through the narrative responses, indicated that the life experiences of the participants paralleled those described in the rap lyrics.
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CHAPTER 1

Introduction

*Description of the Problem*

Juvenile delinquency is one of the nation’s most persistent, unresolved problems (Snyder & Sickmund, 2006). Although the arrests of young offenders decreased by 18% between 1994 and 2003, more than 2.2 million juveniles were arrested in 2003. Furthermore, arrests of female offenders and offenders under the age of 15 have increased.

Although various risk factors involved in delinquent behavior have been considered, the considerable time that adolescents spend listening to music has been blamed for behavioral problems (Anderson, Carnagey, & Eubanks, 2003). Parents and school systems are concerned about the music that is popular among adolescents, such as rock, heavy metal, and rap music. Aggressive music and explicit lyrics have inspired heated discussions regarding delinquent behavioral choices of youth.

Delinquent youth tend to have difficulties in school, parenting tensions at home, and underlying psychological problems (Tarolla, Wagner, Rabinowitz, & Tubman, 2002). The living environment and social life of youth strongly influence their behavior. The immature structure and functioning of adolescent brains can lead them to thoughtless behavior. The dilemma of being a dependent child while trying to be a responsible young adult may be expressed in a maladaptive way. As described, the risk factors in delinquent behavior may be sociological, biological, or psychological in origin or the mixture of these three domains.
In addition, personality studies have found that the trait of sensation seeking is significantly high during adolescence and seems to prompt teens to engage in risky behavior (Arnett, 1995; Zuckerman, 1994). The drive to seek thrills, whether out of curiosity or boredom, causes young people to choose highly stimulating actions, sometimes resulting in misconduct.

The fact that adolescents seek a high amount of stimulation makes it logical that they prefer vigorous music (Gardstrom, 1999). Adolescents may satisfy their need for stimulation with the energy conveyed in rap music. The overlap in neuroanatomy between music processing and sensation seeking further supports the idea that adolescents may listen to rap music as way to get stimulated, consciously or unconsciously.

Juvenile Delinquency

A juvenile delinquent is an individual between 7 and 18 years of age who has been found guilty of a criminal act in the courts. The National Council of Juvenile and Family Court Judges notes that juvenile crimes include gang involvement, sex offending, substance abuse, property theft, and truancy (Snyder, 2005).

Substantial growth in juvenile delinquency began in the late 1980s (Snyder, 2005). With the increased number of criminal acts, residential facilities are moving beyond their capacity to accommodate all the individuals who require treatment (Tarolla et al., 2002). A serious concern is that juvenile delinquents often continue to engage in delinquent behavior in adulthood (Loeber & Farrington, 2001).
Trends in Juvenile Delinquency

According to the Juvenile Justice Bulletin (Snyder, 2005), the peak year of violent juvenile arrests was 1994. Although the arrest rate decreased after 1994, the demographics of the offenders are changing. A significant percentage of this particular population used to be dominated by Black males from economically challenged communities in urban areas. Today, the percentage of non-Black, female, and younger offenders is rising. Although poverty is still considered to be a significant problem, an increasing number of youth from nonimpoverished families also engage in misconduct.

Therefore, there is still a need for preventing delinquency and for the correction of young offenders (Tarolla et al., 2002). Not only is the crime rate increasing, the recidivism rate is also on the upswing. The lack of effective therapeutic interventions may account for the increase.

Risk Factors

Nearly all youngsters engage in misconduct acts of various degrees (Garabedian & Gibbons, 2005); however, not all of them become delinquents. Researchers in such fields as psychology, sociology, psychiatry, and criminology have attempted to understand the developmental course of juvenile delinquency. A variety of risk factors and predictors of juvenile criminal activity have been analyzed (Garabedian & Gibbons 2005; Loeber & Farrington, 2001; Tarolla et al., 2002; Taylor, Iacomo, & McGue, 2000).

Sociological risk factors. Young people who engage in delinquent behavior exhibit several risk factors within a sociological conceptualization (Tarolla et al., 2002). The identified risk factors exist within a system that consists of individuals, their families, peers, school, and neighborhood. The individual system may include drug use, low verbal
skills, and low self-esteem. Risk factors in the family system include inept discipline and parental difficulties. The peer system includes poor relationship skills and associating with deviant peers. In the school system, risk factors include poor academic performance and poor school conditions. The neighborhood and community system includes involvement in criminal subculture and low organization among residents.

In addition, adolescence is a life stage in which youths tend to seek out excitement, and youths may choose to perform illegal behaviors (Arnett, 1995). Such behaviors occur in the context of establishing independence, which follows their time of dependency as children but prior to learning to be responsible adults.

**Physiological risk factors.** Genetic predisposition also contributes to violent behavior. Low levels of skin conductance, indicating hypoactivity of the autonomic nervous system, have been found to be associated with delinquency (Zuckerman, 2002). Hypoactivity of the autonomic nervous system results in low sympathetic nervous system arousal, thus needing greater stimulation to reach a satisfying arousal level. Seeking for greater stimulation increases the risk of engaging in more dangerous activities. In addition, high levels of testosterone are associated with increased aggression. Adolescents, especially males, have significantly higher testosterone levels compared to individuals in other developmental periods in life (Taylor et al., 2000).

Brain function is also found to be related to delinquent acts (Luna & Sweeney, 2004). A study of brain development revealed that significant refinement in the brain continues into adolescence and beyond. The prefrontal lobe, which is responsible for supervising brain functioning and making wise choices, has not yet become integrated
during adolescence. As a result, adolescents have less ability—and require more effort—to inhibit responses than adults.

**Co-occurring Problems**

*Social learning.* Social learning is one cause of the aggressive nature of delinquent behaviors. The higher rate of violence in families is associated with a higher rate of aggressive behaviors in children (Grieco, 2000). Watching mass media that contains violence is another example of aggression by learning (Anderson & Bushman, 2002). Furthermore, low socio-economic status positively correlates with delinquent behaviors in children (Tarolla et al., 2002).

*Psychiatric disorders.* Juvenile offenders are often diagnosed with psychiatric disorders (Tarolla, et al., 2002). Several psychiatric disorders are associated with delinquent behaviors in youth, including conduct disorder, antisocial personality disorder, substance abuse-related disorders, anxiety disorders, and attention deficit hyperactivity disorder (American Psychiatric Association [APA], 2000).

*Sensation Seeking.* The effect of sensation seeking on decision making must be addressed to more fully understand juvenile delinquency. For example, adolescents seeking novel and intense sensations are more likely to engage in reckless behaviors, such as driving cars at high speeds and using illegal drugs. Young people who engage in sensation seeking see these behaviors as thrilling and intoxicating because of the high degrees of risk involved (Arnett, 1995).

For high sensation seekers there is a resulting intoxication when engaging in risky behaviors. One explanation for the intoxicating effect is the presence of high levels of testosterone, which also lead to expressive outbursts (Arnett, 1995). When humans
engage in thrilling behaviors they feel physiologically aroused. This arousal can activate a pleasure pathway in the brain, which provides an ecstatic feeling. The feeling is perceived as rewarding by young people because it satisfies the sensation-seeking drive (Zuckerman, 2002).

There is a difference between the stimulation levels desired by individuals with a need for low sensation seeking versus those with high sensation seeking. According to Zuckerman (1994), individuals with low physiological arousal levels tend to have a high sensation-seeking drive. In contrast, individuals with high physiological arousal levels are associated with a low sensation-seeking drive. Therefore, high sensation seekers feel deprived of sensations and seek out high levels of excitement. A satisfactory level of excitement for a high sensation seeker would elicit unpleasant feelings in a low sensation seeker because the stimulation level would exceed his comfort level. Previous research has indicated that young offenders are significantly high in sensation seeking (Arnett, 1993, 1996; Ebstein & Belmaker, 2002; Gakzke-Kopp, Raine, Loeber, Stouthamer-Loeber, & Steinhauer, 2002; Schwartz & Fouts, 2005; Taylor et al., 2000; Weisskirch & Murphy, 2004).

Music and Young Offenders

Listening to music makes up a large portion of an adolescent’s daily routine. Music plays an important part in adolescents’ lives; it fulfills emotional and social needs by helping adolescents make a connection among peers (Bushong, 2002; Elligan, 2004). Certain youth employ the distinct values, beliefs, symbols, and actions to attend to and share their cultural experience (Epstein, 1994) – the youth subculture, the expressive form of young people’s shared social and material experience (Epstein, 1994). Young
people have historically enjoyed radical music that is opposed to adult values (Elligan, 2004). For example, popular rock musicians during the Vietnam War included commentary on war, drug, sex, and political protest in their songs.

Currently, rap music speaks for the youth about the challenges of growing up in this world. According to Epstein (1994), self-understanding is an important element in rap culture, underlined by the desire of African-American people to reclaim their history. Because the rap experience can encompass the outward projection and rebellious identity of all who listen, rap music has become a great force in music among young people of all races.

Adults may consider the music of a younger generation “horrifying” (Elligan, 2004, p. 13). As a result, music is accused of inviting young people to engage in misconduct. In fact, a U.S. Senate hearing on music labeling was held in September 1985, supported by the Parent Music Resource Center (PMRC) (Deflem, 2001). This organization was formed by frustrated parents who discovered that their children were exposed to sexual and violent lyrics.

However, the violent content of lyrics is not the only cause for the exhibition of delinquent behavior. For example, the positive correlation between involvement in the heavy metal subculture by adolescents and their use of drugs is confounded by parental drug use (Miranda & Claes, 2003). The results could mean that those adolescents who grow up watching their parents use drugs tend to engage in drug use, but listening to heavy metal music receives the blame.

When considering music preferences, the cause and effect of violence in music and violence among young people is vague. It is uncertain that music containing violence
invites young people to act badly, or if young people who act badly prefer music containing violence.

Music preference is determined by the music itself, the social environment, and the characteristics of the listener (Cutietta, 1992; LeBlanc, 1982). Adolescents are not only surrounded by rap music and the peers who listen to rap music, but also they voluntarily make a decision to listen to rap music. Thus, the sensation-seeking trait of adolescents may play a role in determining music preference. The physiological drive for excitement may make a listener choose extremely exciting songs. Listening to stimulating music may meet the need for sensation seeking. The resulting satisfaction provided by stimulating music may reflect the phenomenon explained through drive reduction theory.

Terms

*Sensation seeking*: A personal trait that involves seeking of intense, novel, and complex sensation and experiences and the willingness to take physical social, legal, and financial risks for such experiences (Zuckerman, 1994).

*Music preference*: An outward “act of choosing, teeming or giving advantage of one thing over another” (Cutietta, 1992, p. 299).

*Rap music*: A music genre characterized by a vocal delivery of a text over a soundtrack created on a turntable. The person who delivers the text is the MC, and the person who produces the soundtrack on a turntable is the DJ.

Theoretical Relevance

Arguments about the influence of music raise questions about the mechanism underlying the operation of behavioral responses of adolescents. According to *drive reduction theory*, the purpose of listening to music is to expend energy to reduce tension
(Peer, Lindsey, & Newman, 1982). The theory is based on the reduction of both primary and learned drives, including biological needs (e.g., sexual energy) and psychological needs (e.g., esteem and security). The drive for unsatisfied biological or psychological needs creates conflict and blocks rational thinking needed for problem solving. In an effort to reduce the resulting discomfort, behaviors that temporarily reduce anxiety are developed, such as substance use, self-mutilation, or outrages against others. When the behavior provides comfortable satisfaction, it is learned as the response to similar discomfort.

In the case of juvenile delinquency, criminal behaviors are carried out in order to reduce discomfort and anxiety of unsatisfied drives. Gardstrom (1999) states, in her study on music preference of juvenile offenders, that music may reduce the levels of sensation seeking by providing sensory stimulation. Thus, a highly satisfying music experience may reduce the drive to seek sensations, such as delinquent behaviors.

Drive reduction theory is associated with the notion that the alleviation or termination of drive is rewarding. Decreasing the physiological condition level of a driven state is also perceived as the reward value in Berlyne’s (1960, 1971a, 1971b) theory of optimal level of arousal. This theory suggests that the complexity of the stimulation that satisfies one’s optimal level of arousal elicits a rewarding effect; when arousal is too intense or too low, the rewarding effect is not achieved until the arousal is reduced or elevated to the optimal level. Optimal level of arousal is the goal of drive reduction.

If a driven state of sensation seeking induces arousal that is too intense in adolescents, they would want to reduce the driven state. As a vehicle for emotional
expressions, rap-music stimuli can facilitate psychological, verbal, or emotional catharsis and prevent outrages by adolescents (Gardstrom, 1999). Thus, the present study may make a contribution to our knowledge by applying drive reduction theory to music therapy interventions for juvenile delinquency.

Practical Relevance

The effectiveness of traditional interventions for juvenile delinquents has been limited. Because the rate of readmission to corrective facilities is high, it is necessary to seek a way to reduce the internal force for aggressiveness (Tarolla et al., 2002). Among the therapies used to treat juvenile delinquents, music therapy has been found to be effective (Wyatt, 2002). The use of improvisational drumming activities and song lyric analysis seem to be the most frequently used techniques in music therapy interventions for this population. However, public concern about the negative influence of popular music has restricted the use of popular music by music therapists working at correctional facilities (Bushong, 2002).

According to the drive reduction theory, adolescents could physiologically feel discomfort due to an unsatisfied sensation-seeking drive (Peer et al., 1982). As the theory of optimal level of arousal (Berlyne, 1971b) suggests, once an adolescent satisfies his drive through listening to any kind of music, he will listen to it repeatedly because of the rewarding feeling. The popularity of rap music among young offenders could be due to the intense, novel, and complex stimuli levels of the genre. The reward value of musical stimulation can be expected to reduce their sensation-seeking drive, which could redirect them from outrages. The present research may have implications for the role of music in reducing the tendency of young people to engage in delinquent acts.
The findings of the present study may also benefit music therapists in terms of therapeutic effectiveness. Analysis of the lyrics of a preferred song could allow clients to express their insights and thoughts. If the results from this study support earlier work on sensation seeking and musical preference, we will find that high sensation seekers tend to prefer and to get involved in therapy interventions that use stimulating music. Music therapists may find it helpful to know what level of musical stimulation young offenders prefer when planning therapeutic interventions. Using the clients’ favorite musical stimulus could elevate clients’ motivation, participation, and attention. The proper stimulation level may also allow clients to redirect their frustration or sensation-seeking drive so that it is expressed in a nondestructive way.

However, the findings may reveal additional challenges to music therapists because the sensory stimulation through music can enhance the sensation-seeking desire of naïve youths. Carefully controlled and guided music listening is needed when exposing young offenders to rap music in order to monitor their behavioral outcomes. Because rap music is often listened to by young offenders, responses to random and unguided music listening could include violent behaviors.

Therefore, music therapists’ understanding of the use of music by young offenders may be enhanced. Hip-hop/rap has been used in therapeutic interventions for young offenders because of the familiarity of the music to the target population (Elligan, 2004; Stephens, Braithwaite, & Taylor, 1998). The lyrics of music are actually listened to and discussed by the target population. In addition, the selection of clients’ favorite music is strongly suggested for music therapy interventions in correctional settings (Thaut,
1987). The present study may support the use of rap music with lyrics that adults worry about.

Statement of Purpose

The purpose of the present study is to investigate the relationship between sensation-seeking levels and rap-music preferences of young offenders. The study will examine whether the sensation-seeking levels are related to the preference for high versus low stimulant levels of rap music, and aggressive versus nonaggressive lyrics in rap music.
CHAPTER 2
Review of Related Literature

This chapter will review research literature relevant to understanding young offenders’ sensation-seeking trait and their preference for rap-music stimulation. The review is divided into three sections. The first section will provide definitions, neurological components, and functions of the sensation-seeking trait. The second section describes factors that influence the music preferences of young offenders, and includes a historical overview of rap music. The last section will focus on the mechanism of music processing, specifically, drive reduction—an important phenomenon related to music processing in young offenders.

Sensation Seeking

*Sensation seeking* is a personality trait defined by Zuckerman (1994) as “the tendency to seek novel, varied, complex, and intense sensations and experiences and the willingness to take risks for the sake of such experiences” (p. i). The goal of sensation seeking is to look for an increase in stimulation. Humans, as well as many other species, engage in behaviors, such as exploring the environment, when primary drives, such as obtaining food and water and pain reduction, are fulfilled.

High levels of the sensation-seeking trait can have both positive and negative influences on humans (Zuckerman, 2002). For example, Air Force pilots are commonly high sensation seekers. The majority of those who engage in sports such as bungee jumping and skydiving have a similarly high sensation-seeking trait. On the other hand, a drive for sensation seeking can be associated with substance abuse, smoking, unsafe sex, injury, and criminality.
The Neuroanatomy of Sensation Seeking

High sensation-seeking individuals prefer intense, novel, and complex stimuli (Zuckerman, 1994). Therefore, these individuals often make impulsive decisions that put themselves in situations where they can receive these types of stimuli. The neural characteristics of sensation seeking involve the neurotransmitters serotonin and dopamine. The main anatomical structures involved are the nucleus accumbens, anterior cingulated cortex, medial prefrontal cortex, orbitofrontal cortex, and the amygdala (Cardinal, Winstanley, Robbins, & Everitt, 2004). (See Figure 2-1.)

Serotonin is related to impulse control (Cardinal et al., 2004; Kalat, 2004). Organisms with high serotonin activity have good impulse control, whereas low serotonin activity is associated with poor impulse control. An uninhibited impulse can prompt a person to choose the immediate pleasant reward without considering the consequences of the action chosen.

Dopamine is the most notable neurotransmitter associated with the reward system (Cardinal et al., 2004). When brain stimulation releases dopamine, the stimulation reinforces the association (i.e., learning) of pleasurable consequences and increases the preference for immediate reward. High levels of dopamine are associated with choosing impulsivity or immediate reward.
The nucleus accumbens is the subcortical area for pleasure seeking and reward, and is generally referred to as a “pleasure center” (Cardinal et al., 2004; Kalat, 2004). The structure contains many dopamine receptors and is associated with the ability to recognize pleasurable stimulation. Learning determines what action to take for gaining greater and immediate reward. The nucleus accumbens is activated when humans engage in behaviors fulfilling their biological primary needs. Humans are rewarded and then repeatedly engage in these behaviors so that they can experience the resulting feeling (Peretz & Zatorre, 2005). If the nucleus accumbens is damaged, learning does not occur, and if the nucleus accumbens develops a lesion, this leads to choosing immediate, small pleasures over a delayed, greater reward.

The orbitofrontal cortex is strongly implicated in the assessment of reward value (Cardinal et al., 2004). Lesions in the orbitofrontal cortex induce impulsive choices of immediate pleasure because of the lack of supervision from the higher brain structure.
The amygdala, as a part of the limbic system, also provides input to the reward system concerning motivational and emotional variables. The nucleus accumbens, the orbitofrontal cortex, and the amygdala influence the magnitude of pleasure elicited from a stimulus.

These structures allow human beings to experience psychophysiological arousal as a reward. In adolescents these structures are quite active and can lead them to choose an immediate pleasure. High sensation seekers may have more active structures than low sensation seekers.

An imbalance of serotonin and dopamine can trigger aggressive behavior. Serotonin has been thought to inhibit aggressive, violent, and impulsive behavior in humans. A lack of serotonin increases the risk of uninhibited behavior, such as early onset alcoholism and antisocial behavior.

*Psychophiology of Sensation Seeking*

The physiology that underlies sensation seeking may provide an explanation for delinquent behavior. Several researchers have found low skin conductance arousal levels in high sensation seekers (Arnett, 1996; Greene, Kracmar, Walters, Rubin, & Hale, 2000; Zuckerman, 2002; Kelly, Schochet, & Landry, 2004). The relationship between the autonomic nervous system and skin conductance arousal levels links the neurobiology of sensation and novelty seeking and criminal behaviors (Ebstein & Belmaker, 2002; Cardinal et al., 2004). For example, Gatzke-Kopp et al. (2002) found a relationship between delinquency and skin conductance arousal levels. Delinquents scored significantly lower in skin conductance arousal levels compared to the control group, meaning that they were not easily aroused by a stimulus.
The psychophysiology of sensation seeking can be further explained through the arousal levels of individuals (Zuckerman, 1994). There are individual differences of generalized arousal levels, which influence the activation levels of all systems. Individuals with a high neural threshold have a low level of arousal potential (Cardinal et al., 2004; Zuckerman, 1994), and they need greater stimulation to obtain an optimal level of arousal. When the pleasure is inadequate, the lack of satisfaction turns into a drive to seek more excitement. These individuals are considered to have high levels of sensation seeking. On the other hand, individuals with low neural threshold levels of arousal potential require only a small amount of stimulation to induce arousal. These individuals may achieve optimal levels of arousal easily, and they find an increase in stimulus is unpleasant.

In response to intense stimuli, the cortex of high sensation seekers is activated, whereas that of low sensation seekers is inhibited from arousal. The inhibition activation protects low sensation seekers from overstimulation. However, the reduced function of the arousal mechanism may give low sensation seekers inefficient cognitive functions during stressful overload situations. In response to intense stimuli, low sensation seekers may exhibit uncontrolled behavior, such as attempted suicide, whereas high sensation seekers experience elevated attention to the stimuli.

Sensation Seeking and Delinquent Adolescents

The most powerful demographic influences on sensation seeking are gender and age (Zuckerman, 1994). The level of sensation seeking within an individual increases between ages 9 and 14, peaks in late adolescence and the early 20s, and decreases
steadily after this point. Males are generally higher in sensation seeking than females. (Arnett, 1993, 1995).

Concerning the demographics, the sensation-seeking trait has been cited in the literature to explain a variety of delinquent behaviors, such as alcohol use, the use of illegal drugs, and criminality during adolescence (Kelly et al., 2004). The demographic data of sensation-seeking levels is consistent with driving accidents, criminal violations, and other conduct problems. In fact, mortality is significantly high in adolescence due to the engagement in dangerous activities, despite peak health and strength in this period. Adolescents, in general, are susceptible to suicide, eating disorders, depression, and addiction. Moreover, young people’s involvement in crimes, whether intentionally or unintentionally, also can increase the risk of being injured or killed.

Arnett (1996) conducted a study to investigate the relationship among reckless behaviors, aggressiveness, and sensation seeking in adolescents. The findings show that sensation seeking has a relationship to various types of reckless behaviors, including reckless driving, unsafe sex, and drug use among high school and college students. Many participants with high sensation seeking had a tendency to engage in such behaviors. Sensation seeking is more a contributor to reckless behaviors than aggressiveness.

Greene et al. (2000) studied how the level of sensation seeking contributed to adolescent risk-taking behaviors. The researchers described two theories for explaining the failure of people to choose socially desirable behaviors. From the point of view of social psychology, poor social and family background may be responsible for the misconduct of some young people. From the viewpoint of cognition, many young people may be too immature and cognitively inexperienced to successfully produce desired
behavioral outcomes. Risk-taking behaviors in adolescents, especially alcohol use and delinquency, are found to have a significant relationship to the disinhibition dimension of sensation seeking. Possessing a high sensation-seeking level may predispose individuals to higher risk for committing a crime. Thus, individuals who commit crimes can be expected to have a stronger sensation-seeking trait than those who do not.

The level of sensation seeking in young criminals has been studied. The study of psychopathy, a clinical construct to represent juvenile delinquents, included sensation seeking as a psychopathy-related personality trait (Daderman, 1999). Daderman compared the personality traits of severely conduct-disordered young males and typical young males. Higher levels of impulsivity, sensation seeking, and lower social conformity were observed in conduct-disordered males as compared to typical young males. In terms of sensation seeking, juvenile delinquents were more likely to pursue new sensory experiences in music, art, and drugs. They also tended to pursue pleasure through extroverted social activities (e.g., partying) and avoided having the same routine of activities. It is interesting to note that they scored lower on interest in physical risk-taking behaviors than typical young males, meaning juvenile delinquents were not interested in activities such as bungee jumping or skydiving. The results suggested that the high sensation-seeking levels of juvenile delinquents do not produce a desire for sport activities but for activities such as music, art, drugs, or partying.

The relationship between psychopathy and sensation seeking raises the possibility that sensation-seeking levels predict adolescent psychopathy. Vitacco and Rogers (2001) investigated the reliability of impulsivity, hyperactivity, and sensation seeking as psychopathy predictors. Adolescent participants who had been admitted to a maximum-
security facility were interviewed and classified in three levels of psychopathy: low, moderate, and high.

Impulsivity appeared to be the most reliable predictor of psychopathy, whereas hyperactivity and sensation seeking did not show significant relationships with psychopathy. A significant relationship was found, however, between sensation seeking and conduct problems. Vitacco and Rogers (2001) concluded a two-step prediction of psychopathy while considering the approaching significance of sensation seeking and hyperactivity. First, impulsivity, sensation seeking, and hyperactivity contributed to conduct problems. Second, conduct problems, especially aggressiveness, contributed to adolescent psychopathy.

In summary, sensation seeking is a personality trait in which the individual seeks increased stimulation. The neuroanatomy of sensation seeking reveals that the satisfaction of a sensation-seeking drive is experienced as a reward through activation of the “pleasure center,” which is identified on the nucleus accumbens shown in Figure 2-1 (Cardinal et al., 2004; Gatzke-Kopp et al., 2002).

Music

Music has historically been utilized to facilitate social functions, such as religious activities, community gatherings, and rituals (Gfeller, 2005). The connection between groups of people and music has contributed to the construction of national identity, the development of local cultural industries, and trans-local cultural exchanges. Thus, the emergence of community and collective identity through music has been an important aspect of music (Whiteley, Bennett, & Hawkins, 2004). On the other hand, some genres
of music have been publicly criticized for contributing to the increase of violence among young people (Bushong, 2002).

The Use of Music

The development of technology has allowed music to become available to individuals in dramatically varied ways. North, Hargreaves, and Hargreaves (2004) investigated how individuals use music in everyday life. The purpose of the study was to identify everyday uses of music in a natural setting according to five aspects: 1) Who do people listen to music with? 2) What do they listen to? 3) When do they listen to music? 4) Where do they listen to music? and 5) Why do they listen to music?

The participants completed a questionnaire with questions concerning these aspects each day for 14 days. The participants’ ages varied from 13 to 78 years. The researchers found that the effects of music varied in terms of who, what, when, and where. In terms of why, a significant number of participants reported that music was selected for enjoyment. An interesting finding of the study was that when participants had a choice of what genre of music they listened to, they selected different genres depending on the purpose. For example, a genre of music heard at leisure time was chosen for enjoyment, whereas music heard during work time was another genre, and had more practical reasons for listening, such as enhancing concentration. The results indicated that individuals’ voluntary and active use of music differed depending on the context.

Music has various functions in everyday life. Hargreaves, North, and Tarrant (2000) surveyed the purpose of listening to music, particularly in adolescents, because their extensive time commitment to active music listening. The study investigated if the motivation of listening to music is similar in adolescents in the United States and the
United Kingdom. Two groups of participants, one from the United States and one from the United Kingdom, were asked to rate 11 items on a questionnaire from 0 (This is definitely not a reason why I listen to that music) to 10 (This is definitely a reason why I listen to that music).

The most popular reason for music listening was “to enjoy music” in both countries. The next three most popular reasons were “to relieve boredom,” “to relieve tension,” and “to help get through difficult times.” One interesting finding was that male participants from the United States were more involved in music listening than male participants from the United Kingdom. The results indicated that both U.K. youth and U.S. youth listen to music to fulfill social and emotional needs. The researchers concluded that there could be a universality: adolescents listen to music to fulfill emotional and social needs.

Indeed, a study of adolescents in an acute psychiatric setting found that music listening was the most frequently used coping skill (Tyson & Baffour, 2004). Among four categories of art forms, indicating music listening, writing, drawing, and singing/playing instruments, music listening was the most preferred activity of the adolescent participants when coping with difficulties in their lives. In addition, rap music was the most popular music genre among the participants. Most participants would listen to rap music to help cope with difficulties. The indication was that youth prefer music widely listened to by their peers, and that listening to this genre of music might have emotionally satisfying effects for them.
Music Preference

Music is evidently listened to for positive purposes. For example, people have reported that they listen to music in order to relieve tension and to elevate mood (Hargreaves et al., 2000; North et al., 2004; Tyson & Baffour, 2004). When an individual makes a decision of which musical piece to listen to, the person engages in “the act of choosing” in order to select a piece (Cutietta, 1992, p. 299). “The act of choosing” is a behavioral outcome of preference. Music preference is determined by the interaction of input information and the characteristics of the listener (as described by LeBlanc’s interactive theory of music preference; see LeBlanc, 1982).
Figure 2-2 displays the model of sources of variation in music preference, created by LeBlanc (1982). The model is arranged in an eight-level hierarchy. Each of the eight levels is indicated by the numbers on the left in the figure. Three broad categories organize the hierarchy: sources related to the music, sources related to the listener’s environment, and sources related to the personal characteristics of the listener. The variables that constitute level 8 include the sources related to music and the listener’s
environment. The variables of the musical input interact with each other in an almost unlimited number of possible combinations (Cutietta, 1992).

The next three levels—7, 6, and 5—act as a filter or a gate (Cutietta, 1992; Radocy & Boyle, 2003). The musical input needs to be received by the listener’s auditory pathway in order to pass through physiological enabling conditions (level 7) prior to reaching basic attention (level 6). Basic attention is a gate that the listener consciously opens to the musical input. If the gate is closed, the input information is not processed. The individual’s current affective state (level 5) influences further musical processing and judgments, as the individual’s “happy” moods interact differently than his or her “sad” moods with a given piece of music.

The listener attends to the musical input if he or she has the physiological ability and willingness (LeBlanc, 1982; Radocy & Boyle, 2003). After interaction with the current affective state, the input information is influenced by personal characteristics of the listener and numerous interactions among all variables at level 4. The variables stay same throughout life, such as gender, auditory sensibility, musical training, and personality.

Level 3 is the beginning of the listener’s voluntary action (LeBlanc, 1982). The listener actively processes the musical input that has passed through the previous levels. The listener recognizes the characteristics of the musical input (e.g., style, instrument, and composer).

At level 2, the listener makes a decision about whether or not he needs more information in order to make a preference decision. If more information is needed, the listener explores the musical input through repeated listening with heightened attention.
New input passes through the hierarchy continually from level 8 through level 2 until the listener is ready to make a decision.

A preference decision is made at level 1 of the hierarchy based on all the variables at the lower levels (LeBlanc, 1982; Radocy & Boyle, 2003). The listener accepts or rejects the musical input. If the listener rejects the musical input, the processing of the information ends. If the musical input is accepted, the listener tends to listen to the favored music repeatedly. The preference decision is, in either event, most likely to make the listener adjust future listening behavior. When presented with a similar musical input, the listener will reach a preference decision similar to previous decisions.

**Music Preference and Sensation Seeking**

LeBlanc’s (1982) interactive theory of music preference suggests that rap music passes through the eight-level hierarchy to become the favorite music of some young people. The input information of rap music physically reaches the auditory pathway of young people and obtains their basic attention. After their current affective state allows the musical input through, sensation seeking, as a personality trait, may start interacting with the information about the music. Thus, music preference can be influenced by the interaction between sensation seeking and information about the music. This theory supports a possible relationship between sensation seeking and music preference decision making.

Schwartz and Fouts (2003) studied personality characteristics and developmental issues of adolescents in terms of the levels of stimulation they seek. The study examined the relationship between personality and issues among adolescents in light of preferences for light music, eclectic music, or heavy music. The “light music preference” included
slow ballads and dance music. The “heavy music preference” included hard rock, heavy metal, and rap music. The “eclectic music preference” indicated a flexible preference for both heavy and light music.

The results indicated that there were differences in developmental issues among the participants based on their music preferences. The adolescents who preferred light music were found to have a desire to meet adults’ expectations and do right and proper things. These participants tended to have concerns about sexual and interpersonal issues. Those who preferred heavy music were found to have low self-esteem and high self-doubt. They tended to act violently and were considered to have conduct problems. Those who had the eclectic music preference tended to show no struggle with life, indicating they were able to use music more flexibly than the other groups (Schwartz & Fouts, 2003).

The findings indicate that those who act violently are more likely to prefer music with higher stimulation, which includes aggressive sounds in the music and more violence in the lyrics (Schwartz & Fouts, 2003). Music with higher stimulation may capture heightened attention from those who seek more excitement.

The stimulation found in music depends not only on the sound of the music, but also on the lyrics. When the lyrics contain exciting, shocking, or sensational descriptions of events, the stimulation level in music can increase. The involvement with music, specifically how much attention is given to the lyrics, can be related to the levels of sensation-seeking trait of listeners.

Arnett (1993) compared three heavy metal music fans with differing levels (low, medium, and high) of involvement with music. The highly involved participant was an
18-year-old male from a chaotic family background, who had history of drug abuse and incarceration. The medium and the low levels of involvement were seen in a 16-year-old male and a 31-year-old male, respectively. The 16-year-old male reported occasional high-speed driving and one incident of vandalism in the past year, whereas the 31-year-old male reported no record of violating the law. Although all three participants were strongly attracted to heavy metal music because of its high stimulation, the involvement in the music and their social backgrounds were varied.

In addition to differences in socioeconomic status, the profiles indicated that interest in the lyrics may have had some influence on involvement levels. The 31-year-old male reported that he enjoyed the abrasiveness, intensity, and high volume of the music but not the lyrics. The 16-year-old male reported that the lyrics did not signify much although he listened to them. On the other hand, the most involved participant, the 18-year-old male, reported that he listened to the lyrics and believed that they “talked about the truth of life” (Arnett, 1993). The findings indicated that the behavioral outcomes for listeners could differ depending on how much attention they gave to the lyrics.

Music Preferences of Juvenile Delinquents

The relationship between music preference and adolescent behavioral problems has been studied. Took and Weiss (1994) investigated the characteristics of adolescents who prefer heavy metal and rap music. They found that heavy metal- and rap- music listeners were significantly and positively correlated with personal turmoil, including poor grade point average, suspension from school, drug use, and sexual activity. The results indicated that listening to heavy metal and rap music could predict problems. In
terms of other precipitating factors, however, gender seemed to play an influential role in these findings. Female participants tended to have fewer problems than male participants.

In line with the study by Took and Weiss (1994), other studies have examined the potential relationship of heavy music with adolescent behavior (Arnett, 1995, 1993; Miranda & Claes, 2003). Most adolescents who preferred rap music or heavy metal music were more likely to have a tendency to struggle in school and to engage in violent behaviors more than other adolescents. Arnett suggests that those adolescents intentionally choose heavy music for social and emotional purposes.

To investigate the use of heavy music among adolescents, Miranda and Claes (2003) investigated the relationship between a preference for rap genres and deviant behaviors in adolescents. Participants responded to a questionnaire on issues of drug use, peers’ deviancy, violent media consumption, importance given to lyrics, and preference genre of rap music. The rap genre consisted of U.S. rap, hardcore/gangsta rap, hip-hop/soul rap, and French rap. The results indicated that deviant behaviors in adolescents were more positively associated with antisocial rap (French rap and hardcore/gangsta rap) and negatively associated with prosocial rap (hip-hop/soul rap). Consistent with Arnett’s (1993) findings, it was found that listeners who pay attention to the lyrics tend to be involved in violence, theft, mild drug use, and street gangs.

The youth culture of heavy metal, rock, and rap music has been the target of blame for delinquent behaviors of young people. In a search for the relationship between music exposure and young offenders, Gardstrom (1999) conducted a study investigating the perceived relationship between exposure to music and the criminal behavior of young offenders.
The results indicated that most of the participants perceived no connection between their behavior and listening to music (Gardstrom, 1999). Only 4 out of 106 participants reported that music listening influenced their delinquent behavior. Most of the participants perceived rap-music listening as a way to look at their lives or a way to change their mood. The lyrics were viewed by some of the young offenders as telling the truth about life. Others reported that listening to their favorite music had the effect of lifting their mood and calming them down. The young offenders perceived rap music as having the power to direct their lives positively rather than negatively. The connection between adolescents and rap music may be comprehended through the origin of rap music.

**Origins of Rap Music**

Rap has been the highest money-making music genre in the U.S. music industry over the last few decades. Its popularity spread has from the United States to countries in South America, Asia, Africa, and Europe (Elligan, 2004; Jackson, 1995; Keyes, 2002; Wood, 1999). Understanding how rap developed as a music genre can help explain the reasons for its popularity.

Rap music emerged from the hip-hop culture that evolved in the Bronx, New York, during the 1970s (Keyes, 2002; Wood, 1999). The South Bronx ghetto of African Americans and Caribbean immigrants emerged in the 1960s. This population had been relocated from Manhattan to the Bronx in order to accommodate large urban renewal projects, such as the construction of Lincoln Center. With this in mind, it is understandable that most rap lyrics describe the harshness of life in the ghetto, which has frequently been devalued by people outside of the ghetto environment.
The hip-hop culture is made up of disc jockeys (DJs), emcees (MCs), break
dancers, and graffiti writers (aerosol artists) (Elligan, 2004; Jackson, 1995; Wood, 1999).
Rap is an icon of the culture, which is a combined delivery of the soundtrack (by the DJ)
and poetry (by the MC). It is a musical form that makes use of rhyme, rhythmic speech,
and street vernacular, which is recited or loosely chanted by an MC over a musical sound
track produced by a DJ on a turntable. Jamaican immigrants brought the skills of
turntable mixing and “MC-ing” to the crowd. Prior to the 1960s, the competitions of “DJ-
ing” and “MC-ing” were already popular in Jamaica (Wood, 1999).

During the early days of rap, artists improvised rhyming words over a soundtrack,
which was called “freestyle.” Usually rappers publicly performed at dance parties,
competing with each other to determine who could keep the crowd moving with their
rhythms and who could create the most innovative rhymes. The stories focused on the
same themes as found in rock music, such as sex, partying, and the remarkable talent of
musicians themselves. Regarding rap, Epstein (1994) stated “the basic sound, propelled
by a slamming polyrhythmic beat, is loud, and raw. The lyrics, a raucous stew of street
corner bravado and racial boosters (p. xxv).” Rap music has been associated with a new
rebellious youth movement.

Despite the aversion of school systems and parents to rap music, Wood (1999)
views the music genre as a contemporary form of folk poetry in the African-American
tradition. In fact, rap in contemporary culture and folk poetry from older African-
American cultures share some characteristics. Neither folk poets nor rappers require
formal training in music or literature, so both groups may include both professionals and
amateurs. The genre includes a union of music, dance, and lyrics, and the practice
originally started as local music events. Since the time of slavery, traditional African-American folk poetry has been found in work songs, prison songs, the Blues, sermons, and Spirituals. These forms of music are precursors to the rap genre.

By the time most African Americans became literate in English in the 1920s, mass communication technology had already started (Wood, 1999). African Americans’ improvisational style of poetry, however, did not become popular because it was not recorded on written sheet music. The African-American tradition of improvisation was eventually brought to Anglo-American awareness through jazz—a musical culture that evolved through the exchange of audio recordings (Keyes, 2002; Wood, 1999). By the 1960s, North Americans were communicating to each other with television, radio, and recordings. Interest in the oral performance of poetry followed. Rap started to take its current form in the 1970s when some African-American musical composers began to employ spoken lyrics with street-level political messages, slower tempi with bass-heavy arrangements, and electric effects. Many young African-American people started to connect with the music.

*Rap and Cultural Identity*

Young generations usually have special connections to music (Elligan, 2004). Many young people believe that music speaks to their experiences, challenges, passions, fears, and hopes. The music of youth has typically been radical and opposed to adult values and norms. For example, rock and heavy metal focus on violence and protest; reggae delivers messages of protest, liberation, and freedom.

When artists such as “Grandmaster Flash” and the “Furious Five” published *The Message* in 1982, rap had evolved from simply being music about fun and dancing to
presenting a commentary on the politics, issues, and challenges that confront black adolescents and young adults (Elligan, 2004; Wood, 1999). Through television and radio, rap was broadcast across the United States. By the mid-1980s, rap’s influence had spread to music, art, media, and the social development of youth. With the influence of communication technology, rap is now heard everywhere.

Rap can be crucial to the social identities of African-American adolescents and young adults. Jackson (1995) conducted research on the influence of rap music on the identity and social and political views of economically unprivileged African-American high school students in Miami, Florida.

Rap was the most popular music among all four participants, and it served as a form of communication and cultural expression. Rap music reflected the language and culture of the artists and described those elements that were significant to the participants’ lives, such as activities, friends, and achievements. In the interviews, some participants mentioned that they would be able to efficiently memorize lectures in classes and to understand ideas better if those lectures were made into rap songs. They also said that they could be motivated to learn any math or vocabulary if teachers would introduce them by rapping instead of just talking in class (Jackson, 1995).

In addition to serving as a form of communication, rap lyrics reflect life experiences and identity. Jackson (1995) found that African-American high school students most identify with “gangsta rappers,” whose rap is the most popular subgenre. The participants believed that gangsta rappers communicate “the truth” about current events in today’s society.
Rap can be classified into several categories, depending on the content in the lyrics (Elligan, 2004). In fact, some rap record publishing companies attempt to focus on a particular type of rap. Elligan classified rap into six categories: 1) gangsta rap, 2) materialistic rap, 3) political/protest rap, 4) positive rap, 5) spiritual rap, and 6) rap not otherwise specified.

Gangsta rap focuses on violence (including specific rap on weapons) and profane language, including misogynistic language (Elligan, 2004). Thus, this category can promote an antisocial message of violence, crime, and sexism. Gangsta rap comes from economically challenged communities with a higher rate of mortality. A high mortality rate reduces young people’s life expectancy, and makes them feel a sense of urgency to engage in what they believe to be “grown-up” activities. Young rappers can glorify images of violence and sex. For young gangsta rappers, a shorter period of their lives is given to adolescence, and they are driven to enter adulthood at a faster rate than are typical young people.

The growing national concern about police brutality in the 1990s provided gangsta rap with a political agenda for rapping about injustice within the U.S. legal and judicial system. However, the only message the naïve young listeners received was the violence in the stories (Elligan, 2004). When gangsta rappers rap about themselves being wounded but surviving to deliver the story, young people think that they themselves cannot earn respect unless they are wounded like the rappers. Young people may not anticipate their own death, which can be caused by being wounded.

Materialistic rap, the so-called “soap opera” of rap, focuses on the value of wealth, sex, possessions, and the trappings of affluence (Elligan, 2004). This category
exemplifies the brighter side of rap, such as being rich as a rapper, and narrates the misery of being poor. This genre of rap is utilized to market various products. Many well-known international companies utilize materialistic rap to promote their merchandise (e.g., mineral water, video games). The lyrics may be able to educate young people because the lyrics describe how hard rap stars worked to achieve success and become wealthy.

Political/protest rap contains a political message or takes a political stand. In the early days of rap, political rap was more prevalent. Delivering political messages, such as fighting against the injustice of society, were significant in the history, growth, and development of rap music. This category demonstrates the value of rap music as an educational tool because it can expose people to ideas they had considered or not thought about in depth. For example, rappers have succeeded in raising money for summer camps for inner city youth and in getting youth to vote.

Positive rap promotes the values of education, responsibility, and ethnic pride (Elligan, 2004). Although there is some overlap between positive rap and political rap, positive rap does not include a political agenda. It emphasizes prosocial values such as family, healthy diet, and happiness. Positive rap is usually found among nonpositive rap. It is rare that one rap artist is committed to composing only positive rap.

Spiritual rap incorporates traditional gospel music to appeal to youth who otherwise would not go to church. The similarity of preaching and rapping is undeniable. The rap style of speech delivery is as convincing to the young crowd as preaching is to adults.
In addition to the above five categories, Elligan (2004) includes “rap not otherwise specified” as the last category for rap. Usually, rappers in this category simply add a rap hook or sample to jazz, blues, rock, alternative, and rhythm and blues. Although “rap not otherwise specified” includes genres of music other than rapping, it is still considered a component of hip-hop culture.

In summary, individuals listen to music for positive reasons, depending on their purposes (Hargreaves et al., 2000; North et al., 2004). Many young listeners listen to rap music while dealing with difficulties in their lives (Tyson & Baffour, 2004). Deciding what music to listen to is the behavioral outcome of music preference. Music preference is based on the interaction of information about the music, the listener, and the listener’s environment (Cutietta, 1992; LeBlanc, 1982; Radocy & Boyle, 2003). Individuals who prefer highly stimulating music with some violence in the lyrics, such as rock, heavy metal, and rap have a tendency to engage in reckless behaviors. However, young listeners have noted that they preferred those types of music because they could identify with what is described in the lyrics (Arnett, 1995; Gardstrom, 1999; Miranda & Claes, 2003).

Rap emerged in the ghetto of African Americans and Caribbean immigrants in the Bronx, New York. Rap inherited the characteristics of African-American improvisational poetry style. For African-American adolescents, rap can be an important contributor to their cultural identity (Jackson, 1995). Not only African Americans, but also an increasing number of inner-city youth in other ethnic backgrounds, listen to rap to strengthen their cultural identity (Elligan, 2004).
Music Processing

Young listeners begin to neurologically process rap music when the music captures their attention. The charismatic performance of rappers, the lyrics that explicitly speak to the listeners, and the rhythmic and percussive soundtrack direct their attention to rap music (LeBlanc, 1982; Radocy & Boyle, 2003). Once a preference decision for rap music is made, the listener repeatedly chooses to experience that stimulus. The repetition and heightened attention to the musical stimulus can reinforce the choice of rap music because listening to the music can provide pleasure to the listeners. Music processing may link the feeling of pleasure induced by music to the sensation-seeking drive in young people.

Stimulation

The processing of musical stimulation in the brain involves arousal at the physiological level (Berlyne, 1971a; Thaut, 2005). In general, arousal levels are lowest during sleep and fluctuate around the middle levels when an individual is awake. The highest arousal level is achieved during extreme circumstances, such as violence or passion.

During a state of arousal, a number of physiological changes occur. Brain activity changes are shown in electroencephalographic (EEG) studies (Berlyne, 1971a). When an individual is aroused, brain waves are higher in frequency and lower in amplitude. Arousal also activates the sympathetic nervous system. As a result, heart rate, blood pressure, and pupillary dilation increase, whereas elimination and digestion decrease. The motor system becomes restless, and muscle tension increases during a state of arousal. Learned and controlled behaviors also decrease, resulting in the weakened inhibition of
reflexes. In addition, sensitivity to important stimuli increases, while attention to less important or unpleasant stimuli decreases.

To determine the levels of arousal, incoming stimuli have been studied. Berlyne (1971a) identifies three properties of a stimulus that may affect arousal: psychophysical properties, ecological properties, and collative properties. Psychophysical properties include the perception of intensity, tempo, brightness, and loudness of music. Collative properties include the perception of structural elements in the composition. Ecological properties include the perception of learned associations with extramusical events and experiences.

Psychophysical properties influence activating behavior, energy level, excitement, and stimulation (Thaut, 2005). The perception of tempo, loudness, and pitch in music can affect the autonomic and central nervous, motor, and sensory systems. The effect of psychophysical properties may increase motor activity, verbalization, and positive mood change. On the other hand, de-arousal or moderated arousal can be induced through the selection of music with the appropriate psychophysical properties. For example, a musical piece with slow tempo, high-pitched melody, and low intensity may induce a de-arousal state.

Collative properties have an influence on functional perception of stimuli (Thaut, 2005). The cognitive and affective experience of order, clarity, comprehension, and tension relief in musical structures may help a person to control behavior. In Berlyne’s (1971a, 1971b) theory, collative properties are considered the most significant. “Collative” refers to novelty, surprise, complex ambiguity, and being puzzled. For example, redundant information, such as multiple occurrence of expected musical phrases in a
musical piece, increase the clarity of the music and decrease its stimulation level, followed by a decrease in arousal level.

Ecological properties consist of designated mood or connotative experiences, memories, and private images that have acquired a learned association with the musical stimulus (Thaut, 2005). For example, a specific emotion that occurs when listening to a musical piece is an ecological property. Ecological properties are not part of the content of music itself, but are responses to an internal psychological event—they are not heard in the musical stimulus. Ecological properties may facilitate awareness and recognition of significant feelings in life experiences, allowing the individual to achieve mood induction and stress reduction.

The arousal levels, elicited by these three types of stimuli, closely correspond to reward feelings. The level of pleasantness of stimulation is determined by the reward and aversive systems, based on the level of arousal. There are two reward systems, primary and secondary, to process pleasantness, called positive hedonic value. There is also an aversive system to process negative hedonic value, which is unpleasantness or punishment value (Berlyne, 1971b). The primary reward system and the aversive system are closely connected to, and at least partially identifiable with, the brain structures controlling the mechanisms of arousal.

Positive hedonic values are elicited by the interaction of the primary reward system and the aversive system (Berlyne, 1971b). A moderate level of stimulation is rewarding to an organism, whereas higher or lower than normal levels of stimulation may be punishing. Positive hedonic value is sensed as the level of arousal increases. Once the arousal level passes the point where an individual receives the maximum positive hedonic
value, the hedonic value starts to decrease. From that point on, as the arousal level increases, the negative hedonic value increases. An organism will strongly prefer the arousal level at the optimal level (Berlyne, 1971a, 1971b; Thaut, 2005).

The secondary reward system has the highest cognitive functioning level and the strongest effect on behavior and inhibits the other two systems (Berlyne, 1971b). If an individual desires sensation, the aversive system will process negative hedonic value if the arousal level is too high. When a stimulus is presented to a sensation-seeking individual, the secondary reward system is activated. Activation of the secondary reward system reduces the activity of the aversive system. Unpleasant feelings are reduced in the individual because the drive for sensation is resolved. When unpleasantness is reduced, the response of sensation seeking is reinforced. Reducing drives can be a factor for acquiring pleasure.

Importance of Drive Reduction

The idea of drive reduction has existed since the time of the ancient Greeks. However, drive reduction is most common in its association with Freud and psychoanalysis (Bushong, 2002). Freud believed that all living creatures seek to reduce their innate aggressive and sexual drives. If the drive is not expressed outwardly, one may feel uneasy. After receiving stimulation, the person feels relief from the urge for an emotional outburst. The reduction of urge improves affect, and homeostasis is attained.

Drive reduction theory explains the mechanism for reducing urges or drives (Bushong, 2002; Peer et al., 1982). First, all living creatures possess biological drives for food, sleep, sensation, and sexual activities, and they also have psychological drives, such as esteem, affection, security, and personal growth. If not discharged outwardly, internal
conflict will be created with feelings of guilt, anxiety, and fear. These conflicts block rational thinking, which is needed for problem solving. The sufferer deals with the resulting internal conflict by engaging in behavior that is labeled as symptomatic of the problem. For example, a young person whose biological drives make it impossible for him to think rationally might engage in drug use to escape the discomfort of his own internal conflicts. The discomfort of an unsatisfied drive is reduced with delinquent behavior. As a result, delinquent behavior develops. An effective treatment can be provided by an alternative stimulus to reduce the discomfort.

As an extension of Freudian theory, artistic production—as an expression of fantasies representing wish fulfillment—can be one way to satisfy drives (Bushong, 2002). It also is possible that music can reduce discontent in listeners. Listening to music can allow listeners to have a vicarious, cathartic experience by releasing feelings harmlessly. Based on the mechanism of drive reduction, listening to rap music may be able to reduce the drive for sensation seeking.

Musical “Thrills”

When people receive pleasant or euphoric stimulation, they report that they experience a thrill. Goldstein (1980) studied thrill experiences and stated that they are associated with sudden changes in emotion or mood. Physiological changes due to thrill experiences were commonly felt on the back of the neck and the upper spine. The intense thrills spread in various ways, moving upward to the scalp and the face, outward over the shoulders and the arms, and forward to the chest and to the thighs.

The results revealed that a stimulus that elicits thrills is a confrontation with an emotionally stirring situation. Thrills were reported most frequently as responding to a
musical passage that has an emotional meaning for the listener. Goldstein’s second experiment showed that an opiate receptor antagonist significantly reduced the frequency and intensity of thrills elicited by music. Goldstein concluded that thrills are perceived through electrical activity of the brain with somato-topic organization. The electrical activity is also assumed to be linked to the limbic system and central autonomic regulation, as evidenced by the effects of the opiate receptor antagonist.

Human beings can identify the precise event in a piece of music that elicits thrills. Sloboda (1990) conducted a study asking people to identify musical passages that were associated with thrills. As in Goldstein’s (1980) study, the majority of participants reported that they experienced shivers down the spine, and could, to some extent, identify thrill-provoking events and reexperience thrills. Listening to an emotional piece of music multiple times did not diminish the emotional reactions because the same reactions happened at almost every listening.

Participants in Sloboda’s study included people with Western musical backgrounds, ages 16 to 70. The majority of musical works that the participants nominated were classical. Sloboda (1990) emphasized that even though the physiological response may be an innate automatic response, the response associated with specific musical structures was learned. He concluded that thrills or peak emotions occurred in a significant number of participants. Moreover, he suggested that people in similar cultural environments possibly experienced thrills in the response to a similar musical stimulation.

Thrills can be elicited relatively reliably in individuals and can be observed objectively (Goldstein, 1980; Peretz & Zatorre, 2005; Sloboda, 1990). Cerebral blood flow change occurs in some brain areas, including the nucleus accumbens and
orbitofrontal cortex. Some of these structures are associated with brain reward systems, which are activated by important stimuli (e.g., food, reproductive behaviors). Music elicits pleasure or ecstatic feelings by activating dopamine activity in the nucleus accumbens (Peretz & Zatorre, 2005). The reason why music plays an important role in the emotional experience of youth may be that the rewarding feeling from satisfying the sensation-seeking drive also activates the dopamine receptors in the nucleus accumbens.

Emotion is “one of the most pervasive aspects of human existence, related to practically every aspect of human behaviors, action, apperception, memory, learning and decision making” (Sloboda & Jusline, 2001, p. 73). Although emotion is difficult to define and measure, all humans probably are able to say that they have experienced emotions. An emotion is triggered by cognitive appraisals of an important event. These appraisals elicit strong reactions of most bodily systems, which then generate subjective experiences of the feeling. Finally, the subjective experiences lead to the learning of action tendencies and expressive behavior (Sloboda & Jusline, 2001).

Emotional responses at the physiological level employ a circular pattern in the brain. The loop begins with the thalamus and moves toward to the corpus striatum, cerebral cortex, and the hypothalamus using three different routes, linking the expression and the experience of emotions (Papez, 1937). Although there may be cultural differences in musically induced emotion, it is possible to elicit affective responses consistently in individuals (Peretz & Zatorre, 2005).

One of the successful inductions of emotion by means of music is a pleasant or euphoric musical experience, which is referred to as musical thrill effect (Peretz & Zatorre, 2005). A musical thrill effect is a sudden change of emotion. Psychological
studies have revealed that cerebral blood flow changes occur in several brain areas, including the dorsal midbrain, central striatum with the nucleus accumbens, insula, and orbitofrontal cortex during the experience of a musical thrill.

*Sensation Seeking Related to Music Processing*

Among those brain structures related to the musical thrill effect, the nucleus accumbens and orbitofrontal cortex are also activated when adolescents experience rewarding feelings (Cardinal et al., 2004). When adolescents feel the immediate reward of satisfying the sensation-seeking drive, that pleasurable feeling is generated by the same structures through which music can provide thrill experiences to listeners. If the stimulation level of a musical piece produces an adequate level of arousal to activate the nucleus accumbens and orbitofrontal cortex in adolescents, the musical piece may provide them with rewarding feelings.

Brown, Martinez, and Parsons (2004) noted that musical compositions are designed to induce excitement in listeners of all ages. They found that the newness of the music was well liked by the participants. High sensation seekers usually respond to new information strongly, but the response decreases quickly as the exposure to the stimulus is repeated. As a result, the arousal potential in the high sensation-seeking individuals remains at a resting state. On the other hand, low sensation seekers do not respond to a new stimulus as strongly as the high sensation seekers but stay aroused longer once they are aroused. The consecutive insertion of new information in a piece of music would satisfy the high sensation-seeking trait. It is plausible that sensation seeking and the rewarding effect of music has some kind of relationship, and that the overlap between the
organs for music processing and the reward system in sensation seeking may underlie the relationship.

According to Berlyne’s (1971a) theory of the stimulus properties, high sensation seekers prefer certain characteristics. For psychophysical properties, the components include tempo, loudness, and timbre. The collative properties include form and information redundancy. The ecological properties are extramusical association. If we consider all the characteristics, high sensation seekers prefer fast tempi, intense loudness, and unfamiliar instruments. Positive and exciting associations with the musical piece being listened to would be useful devices in dealing with high sensation-seeking individuals. Novelty in music can be strongly preferred by high sensation seekers. Rap music contains many of the properties considered highly arousing and preferred by high sensation seekers.

**Summary**

Rap music is often blamed for bringing about the delinquent choices made by adolescents. The violent content of rap music is often cited as a contributing factor to delinquent behavior. However, one must account for other contributing factors to delinquent behavior. As cited by several aforementioned researchers, a high level of sensation seeking expressed by adolescents appears to be one of the most significant risk factors in delinquent behavior. Further, even in typical adolescents, there is a brain development period in which the prefrontal lobe continues to integrate with the rest of the brain system. This phenomenon means that adolescents lack a mature supervising brain system, preventing many adolescents from making consistently thoughtful actions. Therefore, many adolescents may choose to receive immediately rewarding feelings by
easily satisfying their sensation-seeking drive through aggression, rather than waiting for a long-term and greater reward.

Music listening frequently has a positive purpose. Even though rap music may elicit undesired behaviors from its young listeners, those listeners choose to listen to their favorite rap music for positive reasons, such as elevating mood (North et al., 2004; Tyson & Baffour, 2004). As explained by LeBlanc’s (1982) interactive theory of music preference, musical preference is influenced by such factors as the high stimulation level of the music and the establishment of cultural identity through the music. In turn, meaningful music choices and listening induce strong emotional reactions, like thrill responses.

Because the neuroanatomical sites involved in sensation seeking and musical thrill experiences overlap, music can serve as a conduit for the sensation-seeking drive. Musical stimuli with adequate complexity, novelty, and intensity will activate the pleasure center and create a pleasurable feeling. The resulting feeling is similar to what sensation-seeking adolescents experience when they engage in risk-taking behaviors. Rap-music stimulus levels elicit a rewarding feeling in high sensation-seeking juvenile delinquents, thereby satisfying the need for sensation.

Research Hypotheses

The following hypotheses will be investigated in this thesis:

1. There is a significant relationship between sensation seeking and the music stimulation preferences of young offenders. Participants who have high levels of sensation seeking will have a preference for high stimulus music.
2. There is a significant relationship between sensation seeking and the lyrics content preference of young offenders. Participants who have high levels of sensation seeking will have a preference for aggressive lyrics.
CHAPTER 3

Method

This chapter describes the research design, identification of the variables, selection of participants, and instrumentation. Selections of materials and data collection are also presented. The present study consisted of two stages, with a pilot study prior to the main study. The pilot study was carried out to select and validate the musical stimuli for the main study. In the main study, participants indicated their preference for musical selections from the pilot study.

Pilot Study

The pilot study examined whether the selected musical pieces have sufficient differences in the levels of stimulation in the music and aggressiveness in the lyrics. Distinct levels of the independent variables (i.e., music-stimulation level, lyrics content) in the musical pieces are crucial when investigating the effects of music on the musical preference of young offenders.

Participants

Undergraduate students enrolled in introductory psychology classes at the University of Miami (Coral Gables, Florida) were recruited for the pilot study. The study was advertised on a research Web site operated by the university psychology department. The research Web site is used by faculty members and graduate students to recruit participants for their studies. Students in introductory psychology classes are required to earn an allotted number of points through participation in multiple research studies. The advertisement for the study consisted of a brief description of the study, the length of the time commitment, and the number of participation points being awarded. Upon obtaining
approval for the study from the department, the researcher scheduled a data collection session. Interested students signed up for the session on the research Web site. On the day of the session, 18 undergraduate students participated in the pilot study.

Procedure

During the scheduled date and time, the participants met the researcher in the psychology department. After a brief introduction of the investigation and a description of the session’s procedures, the participants signed the informed consent forms (see Appendix A). The researcher then distributed the researcher-designed music rating scale to the participants and explained how to use the scale (see Appendix B). The participants were informed the written lyrics would not be available to them, and they would listen to 12 excerpts of rap music that were chosen from the researcher’s personal music collection. The excerpts were on a compact disc that was played on Microsoft Media Player and delivered to the participants through a sound system attached to a Dell computer. There were three experimenter-chosen music pieces for each of the four conditions: 1) High Stimulation with Aggressive Lyrics (HSAL); 2) High Stimulation with Nonaggressive Lyrics (HSNL); 3) Low Stimulation with Aggressive Lyrics (LSAL); and 4) Low Stimulation with Nonaggressive Lyrics (LSNL). After listening to each excerpt, the participants rated the music stimulation level and the aggressiveness of the lyrics on the given scale. Participants were given one minute to complete the scale after listening to each excerpt. At the end of the session, the participants received a credit slip from the researcher for obtaining participation points.
Materials

Twelve pieces of rap music, with three selections per condition, were initially chosen for the pilot study by the researcher from her own collection. Only one selection per condition was selected for use in the main study, based on participants’ responses in the pilot study. To maximize the differences between the music-stimulation variables and lyrics content variables, the researcher’s selections were chosen from diverse categories of rap (Elligan, 2004; Miranda & Claes, 2003). For example, the selection for aggressive lyrics was selected from gangsta rap; the selection for nonaggressive lyrics was selected from positive rap. Although the initial categorization of each music-stimulation and lyrics-aggression level was attempted by the researcher, the final categorization was determined by the pilot study response.

*High Stimulation (HS).* Stimulant music is generally defined as containing a faster tempo, with rhythm characterized by staccato percussive sounds and louder dynamics (Radocy & Boyle, 2003). In this condition, musical selections included highly aggressive instrumental playing, such as an emphasis on the snare drum. The vocal tone is considered more aggressive.

*Low Stimulation (LS).* Sedative music is generally defined as containing sustained and legato melodic passages with minimal rhythmic activity (Radocy & Boyle, 2003). In this condition, musical selections included fewer occurrences of aggressive instrumental playing. Usually, the background harmonic progression was emphasized more than the percussion. The vocal tone was considered calm.
Aggressive Lyrics (AL). The lyrics described violent events and at least one suggestion of engaging in violent acts. The violent acts include killing, shooting, and “hunting.”

Nonaggressive Lyrics (NL). The lyrics may contain a few profane words and violent events. However, there is no suggestion of engaging in those acts and there is no inappropriate or shocking content.

The titles of the 12 rap-music selections, by category, can be found in Table 3-1. Each excerpt contained the first minute of the piece, edited by the researcher utilizing the music-editing software, GarageBand 3.0.4. The researcher categorized the pieces based on her perception of the levels of music-stimulation and lyrics-aggression. Although the music was presented to the participants without the printed lyrics, the lyrics for all selections can be found in Appendix J. The titles, performers, and categories are presented in Table 3-1 in the order that the participants listened to them.

Measurement Tool

Each participant received a researcher-designed scale on which to rate the perceived music-stimulation and lyrics-aggression (see Appendix B). The participants were told that they would be listening to 12 rap-music excerpts and to use the scale to rate the excerpts on the items on the scale. All excerpts were rated using four-point Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree) utilizing the following four items: 1) There are violent acts in the lyrics, 2) There is aggressiveness evident in the lyrics, 3) The artist(s)’ vocal tone is calming, 4) The music is energizing. Items 1 and 2 measured the perceived levels of aggression in the lyrics, and items 3 and 4 measured the perceived levels of stimulation in the music.
The scoring of each item corresponded to the participants’ responses. For example, when one item received a perceived level of “3” (agree), the item received the score of 3. Reversed scoring was employed on item 3. The score for the perception level of lyrics-aggression was calculated by averaging the earned scores of items 1 and 2. Likewise, the score for the perception levels of music-stimulation was calculated by averaging the earned scores of items 3 and 4.
Table 3-1

*Pilot Study: Titles, Performers, and Initial Categorization of Rap-Music Selections*

<table>
<thead>
<tr>
<th>Excerpt</th>
<th>Title</th>
<th>Performer</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Back Down</td>
<td>50 Cent</td>
<td>LSAL</td>
</tr>
<tr>
<td>#2</td>
<td>Broken Class</td>
<td>Talib Kweli</td>
<td>HSNL</td>
</tr>
<tr>
<td>#3</td>
<td>Memories Live</td>
<td>Talib Kweli</td>
<td>LSNL</td>
</tr>
<tr>
<td>#4</td>
<td>Gangsta Gangsta</td>
<td>N.W.A.</td>
<td>HSAL</td>
</tr>
<tr>
<td>#5</td>
<td>In My Hood</td>
<td>50 Cent</td>
<td>LSAL</td>
</tr>
<tr>
<td>#6</td>
<td>Ghetto Afterlife</td>
<td>Talib Kweli</td>
<td>HSNL</td>
</tr>
<tr>
<td>#7</td>
<td>Motivation</td>
<td>TI</td>
<td>LSNL</td>
</tr>
<tr>
<td>#8</td>
<td>GhettoMusik</td>
<td>OutKast</td>
<td>HSNL</td>
</tr>
<tr>
<td>#9</td>
<td>Keep Ya Head Up</td>
<td>2Pac</td>
<td>LSNL</td>
</tr>
<tr>
<td>#10</td>
<td>Tear It Up</td>
<td>Young Wun and DMX</td>
<td>HSAL</td>
</tr>
<tr>
<td>#11</td>
<td>Many Men (Wish Death)</td>
<td>50 Cent</td>
<td>LSAL</td>
</tr>
<tr>
<td>#12</td>
<td>What Up Gangsta</td>
<td>50 Cent</td>
<td>HSAL</td>
</tr>
</tbody>
</table>

Note: HS = High Stimulation; LS = Low Stimulation; AL = Aggressive Lyrics; NL = Nonaggressive Lyrics.
Data Collection

Analysis of participants’ ratings of the 12 musical excerpts determined the musical selections for the main study. The rating of each rap excerpt yielded two scores: the level of aggression in the lyrics and the level of stimulation in the music. The highest possible score of each variable was four. Scores closer to four were considered as having higher perceived levels of lyrics-aggression and music-stimulation. Scores closer to one were considered as having lower perceived levels.

Based on the responses of the pilot study, the rap-music selections for the main study were determined as follows: 1) HSAL—“Back Down” by 50 Cent, 2) HSNL—“GhettoMusik” by OutKast, 3) LSAL—“In My Hood” by 50 Cent, and 4) LSNL—“Memories Live” by Talib Kweli. The participants of the main study listened to these four selections.

Main Study

In the main study, the participants completed a sensation-seeking scale and rated their preferences for the rap-music selections that had been determined by the pilot study. The main study investigated whether or not the levels of sensation seeking in young offenders were related to their preferred levels of aggressiveness in the lyrics and to the stimulation of the music.

Design

The mixed-group factorial design of the main study required all participants to undergo the same procedure and stimuli (McBurney, 1998; Smith & Davis, 2001). The three independent variables included the level of sensation seeking, the aggressiveness of the lyrics, and the stimulation of the music. Lyrics-aggression and music-stimulation
variables had dichotomous levels of high and low. The dependent variable was the rap-music preference of young offenders.

All participants were exposed to all four conditions of rap music selections as described for the pilot study. The musical preference of the participants was collected as the dependent variable. For the purpose of controlling for order and sequence effects, Latin squares technique was employed to determine listening order of the selections (McBurney, 1998). The original order of the selections was as follows: 1) “Back Down,” 2) “GhettoMusik,” 3) “In My Hood,” 4) “Memories Live.” The selections were rotated. For example, the first group listened to the selections in the original order, and the second group’s first selection was “GhettoMusik,” and so on. Narrative responses on their favorite and least favorite were provided by the participants at the end of the listening session.

Participants

A total of 55 male juvenile delinquents were recruited from the main campus of the Bay Point Schools in Miami, Florida. Bay Point Schools is an accredited Alternative Outreach Miami-Dade County public school that provides educational and vocational services to troubled young males. The students are enrolled in the school by their parents or because of a court order for correctional purposes. Students study academic subjects, including English, math, sciences, and social studies. Vocational training includes barbering, landscaping, culinary arts, hospitality, residential construction, or advanced computer skills. Bay Point also offers athletic programs to the students. The campus is a secure residential facility, and families can visit their children only on weekends.
Procedure

The researcher made initial contact with the student affairs office of the school regarding participant recruitment. The researcher recruited the participants during visitation sessions on weekends. Parental permission (see Appendix C) was obtained at the time of recruitment or from legal guardians if the participants were under 18 years of age.

The data were collected over a two-month period. Data collection sessions were scheduled mainly in the afternoons, when the participants did not have school commitments. The researcher met with eight groups of participants. Each group consisted of 1–10 participants. School counselors brought the participants to a designated room on campus for data collection sessions. During the session, one school counselor was in the room with the researcher to supervise the students. All groups were led by the researcher and followed the same procedure.

The researcher provided a brief introduction of herself, the purpose of the study, and the procedure. The participants gave either informed youth assent (see Appendix D) or adult informed consent (see Appendix E), depending on their ages. Following the completion of the demographic questionnaire (see Appendix F), the participants were asked to complete the Brief Sensation Seeking Scale (BSSS) (see Appendix G) (Hoyle, Stephenson, Lorch, & Donohew, 2002). The researcher informed the participants that they would listen to four selections of rap music. Each rap-music selection was played in its entirety. An iPod nano and Sony speakers were used to deliver the selections. The researcher then asked the participants to rate their liking of rap-music selections immediately following each selection.
The participants listened to four selections of rap music. The selections consisted of: 1) High Stimulation with Aggressive Lyrics (HSAL), 2) High Stimulation with Nonaggressive Lyrics (HSNL), 3) Low Stimulation with Aggressive Lyrics (LSAL), and 4) Low Stimulation with Nonaggressive Lyrics (LSNL). These selections had been determined by the results of the pilot study. The listening order of each group was presented above in the design section.

After each listening, the participants completed the preference subscale of the Measure of Musical Characteristics (see Appendix H) (Asmus, 1985), indicating their preference level of the music. At the end of the listening session, the participants were asked to indicate their favorite music selection and their least favorite selection and to give comments on what they liked about their favorite rap selection and what they liked or disliked about their least favorite rap selection (see Appendix I).

Measures

Demographic Questionnaire. A demographic questionnaire (see Appendix F) was constructed by the researcher. The purpose of the questionnaire was to obtain background information about the participants for the purpose of describing group characteristics. Participants were asked to indicate their school grade, ethnicity, gender, musical experience, and favorite music genre and artists. Their interest in playing musical instruments was also queried. The participants completed the demographic questionnaire at the beginning of the study after they completed the informed consent.

Brief Sensation Seeking Scale. The Brief Sensation Seeking Scale (BSSS) developed by Hoyle et al. (2002) was used to assess the level of sensation seeking in adolescents and young adults (see Appendix G). The questionnaire included eight items
under four subscales: Experience Seeking, Boredom Susceptibility, Thrill and Adventure Seeking, and Disinhibition. Each subscale includes two items. These four subscales were used in the sensation-seeking scale originally developed for adults by Zuckerman (1994). Responses to each item were indicated on a Likert scale (i.e., 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree). The scores were calculated by averaging the points of all items. The highest possible score was 5. The average point of 3.74 is the borderline score between high and low levels of sensation seeking. Scoring on or above 3.75 on the measure was considered to indicate having high sensation seeking. The reported reliability of the BSSS in the literature is .76 (Hoyle et al., 2002). The participants completed the BSSS at the beginning of the study.

**Measure of Musical Characteristics.** The Measure of Musical Characteristics Scoring was developed by Asmus (1985) to examine the aesthetic response to a musical piece (see Appendix H). The original version of this scale consisted of six subscales: complexity, interest, preference, activity, evaluation, and potency. The present study utilized only the preference subscale for the purpose of investigating the rap-music preference of young offenders. The subscale contains five semantic differential items: 1) prefer: hate, 2) approve: disapprove, 3) choose: discard, 4) like: dislike, and 5) select: reject.

The items were presented along equal intervals with positive terms placed on the left of the scale and negative terms on the right. Each scale consisted of seven equally divided intervals; participants indicated their response with an X. The left-most location was assigned a value of 7; values descended sequentially with the right-most location.
having a value of 1. The score was calculated by summing the scores of all items; 35 was the highest possible score. A high score indicates most preferred, and a low score indicates less preferred. The reported reliability of preference subscale is .96 (Asmus, 1985). The participants completed this measure after listening to each music category.

**Music Rating.** The music-rating questionnaire was developed by the researcher to obtain a narrative response from the participants about the music (see Appendix I). The participants indicated their most and least favorite music selections of the four and expressed their reasons for the choices. The responses on the questionnaire provided the researcher with further descriptive data.

**Materials**

Four pieces of prerecorded rap music were played in the main study. Table 3-2 presents the titles of the rap-music selections and their corresponding categories as determined by the results of the pilot study. The playing order of the music pieces was as presented in Table 3-2. Latin squares was employed to control for any order effects. For example, the first group listened to “Back Down” first and listened to “GhettoMusic” last. The first piece for the second group was “GhettoMusic,” and the last piece was “Back Down.”
Table 3-2

*Main Study: Titles and Corresponding Categories of Rap-Music Selections*

<table>
<thead>
<tr>
<th>Title</th>
<th>Artist</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back Down</td>
<td>50 cent</td>
<td>HSAL</td>
</tr>
<tr>
<td>Memories Live</td>
<td>Talib Kweli</td>
<td>LSNL</td>
</tr>
<tr>
<td>In My Hood</td>
<td>50 cent</td>
<td>LSAL</td>
</tr>
<tr>
<td>GhettoMusik</td>
<td>OutKast</td>
<td>HSNL</td>
</tr>
</tbody>
</table>

*Note:* HS = High Stimulation; LS = Low Stimulation; AL = Aggressive Lyrics; NL = Nonaggressive Lyrics.
CHAPTER 4

Results

The statistical analyses of the data from the pilot study and the main study are presented in this chapter. The results of the pilot study will be presented first. Following the pilot study, the results of the main study are analyzed and presented using descriptive statistics and multiple regressions. All statistical calculations were performed using the Statistical Package for the Social Sciences (SPSS) 14.0.

Pilot Study

Participants

A total of 18 undergraduate psychology students participated in the pilot study. There were 13 males and 5 females. The participant ranged in age from 18 to 21 years with an average age of 19.6 years. There were 6 freshmen, 10 sophomores, and 2 juniors in the group.

Selection and Validation of Music Stimuli

The graphic representation of the mean ratings for music-stimulation and lyrics-aggression are presented in Figure 4-1. The mean ratings and standard deviations of participants’ responses were calculated for each of the 12 rap excerpts. A value of 1 indicated the lowest perceived levels of music-stimulation and lyrics-aggression, whereas a value of 4 indicated the highest. For optimal distinction of music-stimulation and lyrics-aggression, the High Stimulation with Aggressive Lyrics (HSAL) selection should have the mean ratings in both columns close to 4. Likewise, the Low Stimulation with Nonaggressive Lyrics (LSNL) selection should have the mean rating in both columns close to 1. The High Stimulation with Nonaggressive Lyrics (HSNL) and Low
Stimulation with Aggressive Lyrics (LSAL) selections, on the other hand, should have a significant difference between two columns, with one column being close to 4 and the other close to 1.

As shown in Figure 4-1, excerpt #3 had the lowest mean rating for both music-stimulation and lyrics-aggression, which is appropriate for the LSNL category. Also, excerpt #8 had the largest difference between lyrics-aggression and music-stimulation, which is appropriate for the LSAL selection. For the HSAL category and the HSNL category, two choices remained. Excerpts #1 and #4 were possibilities for the HSNL category, and excerpts #5 and #11 were possible selections for the HSAL category. Excerpts #1 and #4 both had high mean ratings for lyrics-aggression and music-stimulation. Excerpts #5 and #11 were similar in terms of the differences between the mean ratings of lyrics-aggression and music-stimulation.
The means and standard deviations of the preference ratings for each excerpt are presented in Table 4-1. A smaller value of the standard deviation indicates a higher validity of the score because the agreement of the score is high among participants. The standard deviation of the scores for excerpt #1 was .420 and .491 for lyrics-aggression and music-stimulation, respectively. Excerpt #4 had a standard deviation of .485 and .575 for lyrics-aggression and music-stimulation, respectively. Therefore, excerpt #1 appeared to be more appropriate for the HSAL selection than excerpt #4.
Table 4-1

*Pilot Study: Mean and Standard Deviation of Perceived Stimulation Levels (N = 18)*

<table>
<thead>
<tr>
<th></th>
<th>Minimum Rating</th>
<th>Maximum Rating</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Excerpt #1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lyrics</td>
<td>2.5</td>
<td>4.0</td>
<td>3.50</td>
<td>.420</td>
</tr>
<tr>
<td>Music</td>
<td>2.5</td>
<td>4.0</td>
<td>3.28</td>
<td>.491</td>
</tr>
<tr>
<td><strong>Excerpt #2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lyrics</td>
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<td>4.0</td>
<td>2.50</td>
<td>.970</td>
</tr>
<tr>
<td>Music</td>
<td>2.0</td>
<td>4.0</td>
<td>3.03</td>
<td>.555</td>
</tr>
<tr>
<td><strong>Excerpt #3</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lyrics</td>
<td>1.0</td>
<td>2.50</td>
<td>1.39</td>
<td>.557</td>
</tr>
<tr>
<td>Music</td>
<td>1.0</td>
<td>3.0</td>
<td>1.97</td>
<td>.469</td>
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<tr>
<td><strong>Excerpt #4</strong></td>
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<td></td>
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<tr>
<td>Lyrics</td>
<td>2.5</td>
<td>4.0</td>
<td>3.67</td>
<td>.485</td>
</tr>
<tr>
<td>Music</td>
<td>2.5</td>
<td>4.0</td>
<td>3.28</td>
<td>.575</td>
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<tr>
<td><strong>Excerpt #5</strong></td>
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<tr>
<td>Lyrics</td>
<td>2.0</td>
<td>4.0</td>
<td>3.61</td>
<td>.530</td>
</tr>
<tr>
<td>Music</td>
<td>1.5</td>
<td>3.5</td>
<td>2.44</td>
<td>.591</td>
</tr>
</tbody>
</table>

*Note:* Table 4-1 continues on the next page
Table 4-1 (continued from previous page)

*Pilot Study: Mean and Standard Deviation of Perceived Stimulation Levels (N = 18)*

<table>
<thead>
<tr>
<th></th>
<th>Minimum Rating</th>
<th>Maximum Rating</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
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<td></td>
<td></td>
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<tr>
<td>Lyrics</td>
<td>1.5</td>
<td>3.5</td>
<td>2.69</td>
<td>.572</td>
</tr>
<tr>
<td>Music</td>
<td>2.0</td>
<td>4.0</td>
<td>2.83</td>
<td>.542</td>
</tr>
<tr>
<td>Excerpt #7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lyrics</td>
<td>1.5</td>
<td>3.5</td>
<td>2.25</td>
<td>.493</td>
</tr>
<tr>
<td>Music</td>
<td>1.5</td>
<td>4.0</td>
<td>2.67</td>
<td>.664</td>
</tr>
<tr>
<td>Excerpt #8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lyrics</td>
<td>1.0</td>
<td>2.5</td>
<td>1.50</td>
<td>.514</td>
</tr>
<tr>
<td>Music</td>
<td>2.5</td>
<td>4.0</td>
<td>3.31</td>
<td>.546</td>
</tr>
<tr>
<td>Excerpt #9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lyrics</td>
<td>1.0</td>
<td>4.0</td>
<td>1.67</td>
<td>.822</td>
</tr>
<tr>
<td>Music</td>
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<td>3.0</td>
<td>2.28</td>
<td>.521</td>
</tr>
<tr>
<td>Excerpt #10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lyrics</td>
<td>2.0</td>
<td>4.0</td>
<td>3.22</td>
<td>.669</td>
</tr>
<tr>
<td>Music</td>
<td>2.5</td>
<td>4.0</td>
<td>3.42</td>
<td>.493</td>
</tr>
</tbody>
</table>

*Note:* Table 4-1 continues on the next page.
Table 4-1 (continued from previous page)

Pilot Study: Mean and Standard Deviation of Perceived Stimulation Levels (N = 18)

<table>
<thead>
<tr>
<th>Minimum Rating</th>
<th>Maximum Rating</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Excerpt #11</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyrics</td>
<td>3.0</td>
<td>4.0</td>
<td>3.81</td>
</tr>
<tr>
<td>Music</td>
<td>1.5</td>
<td>4.0</td>
<td>2.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.349</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.771</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Excerpt #12</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyrics</td>
<td>1.0</td>
<td>4.0</td>
<td>3.03</td>
</tr>
<tr>
<td>Music</td>
<td>1.5</td>
<td>4.0</td>
<td>3.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.813</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.705</td>
</tr>
</tbody>
</table>

A paired t test was conducted for the purpose of validating the difference between the stimulation levels of music excerpts. Tables 4-2 and 4-3 present t value, degree of freedom, and significance level for each pair for lyrics-aggression and music-stimulation, respectively.

The paired sample t test revealed no difference in lyrics-aggression levels between excerpts #1 and #5 and between excerpts #3 and #8 (see Table 4-2). It indicated that those two pairs of excerpts had similar lyrics-aggression levels. The lyrics-aggression levels for the other pairs were validated as different. The findings indicated that the lyrics of excerpt #5 could be perceived to be as aggressive as the lyrics of excerpt #1, which
had been selected for the HSAL category. Therefore, excerpt #5 appeared to be the most appropriate excerpt for the LSAL category.

Table 4-2

*Paired Samples T-test for Lyrics-Aggression Levels*

<table>
<thead>
<tr>
<th>Pairs of Excerpts</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td># 1 (AL) - # 5 (AL)</td>
<td>-1.000</td>
<td>17</td>
<td>.331</td>
</tr>
<tr>
<td># 3 (NL) - # 8 (NL)</td>
<td>-.747</td>
<td>17</td>
<td>.466</td>
</tr>
<tr>
<td># 1 (AL) - # 3 (NL)</td>
<td>14.185</td>
<td>17</td>
<td>.000</td>
</tr>
<tr>
<td># 1 (AL) - # 8 (NL)</td>
<td>11.063</td>
<td>17</td>
<td>.000</td>
</tr>
<tr>
<td># 3 (NL) - # 5 (AL)</td>
<td>-13.649</td>
<td>17</td>
<td>.000</td>
</tr>
<tr>
<td># 5 (AL) - # 8 (NL)</td>
<td>11.249</td>
<td>17</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note:* AL = Aggressive Lyrics; NL = Nonaggressive Lyrics.

The paired samples *t* test for music-stimulation revealed that only the pair of excerpts #1 and #8 did not differ significantly in music-stimulation levels (see Table 4-3). It indicated that excerpts #1 and #8 had similarly high music-stimulation levels. The paired *t*-test of excerpts #1 and #5 indicated that the music-stimulation level was significantly different from that of #1, which indicated that #5 could be appropriate for the LSAL selection.
Table 4-3

*Paired Samples T-test for Music-Stimulation*

<table>
<thead>
<tr>
<th>Pairs of Excerpts</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td># 1 (HS) - # 8 (HS)</td>
<td>-.156</td>
<td>17</td>
<td>.878</td>
</tr>
<tr>
<td># 3 (LS) - # 5 (LS)</td>
<td>-3.449</td>
<td>17</td>
<td>.003</td>
</tr>
<tr>
<td># 1 (HS) - # 3 (LS)</td>
<td>8.589</td>
<td>17</td>
<td>.000</td>
</tr>
<tr>
<td># 1 (HS) - # 5 (LS)</td>
<td>5.000</td>
<td>17</td>
<td>.000</td>
</tr>
<tr>
<td># 3 (LS) - # 8 (HS)</td>
<td>-10.995</td>
<td>17</td>
<td>.000</td>
</tr>
<tr>
<td># 5 (LS) - # 8 (HS)</td>
<td>-6.803</td>
<td>17</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note:* HS = High Stimulation; LS = Low Stimulation.

The paired samples $t$ test successfully demonstrated the differences in music-stimulation and lyrics aggression among the music selections. Based on these results, the four music selections chosen were excerpt #1 “Back Down” for the HSAL selection, excerpt #8 “GhettoMusik” for the HSNL, excerpt #5 “In My Hood” for the LSAL, and excerpt #3 “Memories Live” for the LSNL.

*Summary*

In general, the participants’ perceived levels of lyrics-aggression varied more than the perceived levels of music-stimulation. The music selection categories for the main study were selected based on the pilot study participant responses.

In the initial music selection completed by the researcher, “Back Down” was categorized as LSAL. However, based on the pilot study participants’ perceptions, the
piece was selected as the HSAL condition of music-stimulation. The HSNL selection was “GhettoMusic,” given the significant difference between its music-stimulation level and lyrics-aggression level. “In My Hood,” based on the results from the paired sample t-tests, was selected as the LSAL condition. Both aggressive lyrics categories are presented by the same artist, 50 Cent. “Memories Live” obtained the lowest ratings both in music-stimulation and lyrics-aggression levels, and was selected as LSNL condition.

**Main Study**

The main study was conducted to examine the hypotheses about the relationship between sensation seeking and rap-music preferences of young offenders. Descriptive statistics will be presented first, followed by inferential statistics.

**Participants**

The demographic characteristics of the participants group are presented in Table 4-4. A total of 55 male students with conduct problems participated in the main study. The group included 1 8th grader, 10 9th graders, 23 10th graders, 11 11th graders, and 4 12th graders. Five of the remaining participants were in the general education diploma (GED) program. One participant did not respond. The dominant ethnic groups were “Black Non-Hispanic” and “Hispanic.” The most popular music genre among the participants was “Rap/Hip-Hop.” Eleven participants had experience with musical training on one or two musical instruments.
### Table 4-4

*Group Characteristics of Participants (N = 55)*

<table>
<thead>
<tr>
<th>Academic Classification</th>
<th>Quantity</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>18.2</td>
</tr>
<tr>
<td>10</td>
<td>23</td>
<td>41.8</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>20.0</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>7.3</td>
</tr>
<tr>
<td>GED</td>
<td>5</td>
<td>9.1</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>1.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnic Groups</th>
<th>Quantity</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Non-Hispanic</td>
<td>2</td>
<td>3.6</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>26</td>
<td>47.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>22</td>
<td>40.0</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>7.3</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>1.8</td>
</tr>
</tbody>
</table>

*Note:* Table 4-4 continues on the next page.
The musical genre rankings of the participants are presented in Table 4-5. Forty-four participants out of 55 rated the rap/hip-hop music genre as their first choice. Only one participant did not choose rap/hip-hop as one of his top three choices. Latin music was the second most popular music genre. The participants who included “Other” in their top three choices indicated reggae as their favorite music genre. Some participants responded only with their first choices, indicating no response to the second and third choices.
Table 4-5

*Frequency of Favorite Musical Genre Ranking of Participants (N = 55)*

<table>
<thead>
<tr>
<th>Favorite Musical Genre Ranking</th>
<th>First choice</th>
<th>Second choice</th>
<th>Third choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Country</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Classical</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Latin</td>
<td>2</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Oldies</td>
<td>1</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>R&amp;B</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Rap/Hip-hop</td>
<td>44</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Rock</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>10</td>
<td>16</td>
</tr>
</tbody>
</table>

*Preliminary Analysis*

Statistical analyses were conducted to answer the following research questions:

1. Is there a significant relationship between sensation-seeking levels and music-stimulation level preference of young offenders?

2. Is there a significant relationship between sensation-seeking levels and the lyrics content preference of young offenders?
To answer these questions, the relationships between sensation-seeking levels of young offenders and their favorite stimulus levels of rap music were investigated.

*Sensation Seeking*

The distribution of the scores of the BSSS is presented in Figure 4-2. The lowest possible score is 1, and the highest possible score is 5. Scores ranged from 1.75 through 5, (M = 3.23, SD = .78). The modes of the scores are 2.50–2.74 and 3.50–3.74, which each contain seven participants. The second most frequent score ranges were 2.75–2.99 and 3.75–3.99. One participant obtained the score of 5 as the highest score among all participants, and one participant obtained the score in the range of 1.75–1.99, which was the lowest. There were 18 participants who obtained BSSS scores of 3.75 and higher, which are considered to be high sensation seekers (Hoyle et al., 2002). There were 37 participants who obtained the scores of lower than 3.75, being low sensation seekers.

Compared to other groups of similar ages described in the previous literature (Hoyle et al., 2002), the mean score of the participant group in the present study was relatively low. In previous research, male students of a middle school and a high school scored the average of 3.54 on the BSSS. The average score of African-American students, which was the dominant ethnic group in the present investigation, was 3.41 (SD = .68) in the study by Hoyle et al. (2002), whereas White students (M = 3.89, SD = .71) and Other students (M = 3.69, SD = .66) scored higher than the participants in the present study.
**Figure 4-2.** The Distribution of Brief Sensation Seeking Scale Scores.
The descriptive statistics for the BSSS are shown in Table 4-6. The BSSS is made up of four subscales: (1) Experience Seeking, (2) Boredom Susceptibility, (3) Thrill and Adventure Seeking, and (4) Disinhibition. Based on the descriptive statistics, the participants scored highest on the Disinhibition subscale and lowest on the Thrill and Adventure Seeking subscale. The BSSS mean score was lower than the mean scores in the previous study (Hoyle et al., 2002). This low score may be attributed to the low score of Thrill and Adventure Seeking as suggested in the previous research (Hoyle et al., 2002).

Table 4-6

*Young Offenders’ Brief Sensation Seeking Scale (BSSS) Scores*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSSS</td>
<td>3.23</td>
<td>.78</td>
</tr>
<tr>
<td>Subscales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience Seeking</td>
<td>3.20</td>
<td>.96</td>
</tr>
<tr>
<td>Boredom Susceptibility</td>
<td>3.27</td>
<td>.94</td>
</tr>
<tr>
<td>Thrill and Adventure Seeking</td>
<td>3.04</td>
<td>1.31</td>
</tr>
<tr>
<td>Disinhibition</td>
<td>3.52</td>
<td>1.03</td>
</tr>
</tbody>
</table>
Music Preference

The means and standard deviations of the music preference scale are given in Table 4-7. Scores range from 5 to 35. The mean scores showed that the participants showed a greater preference for HSAL and LSAL excerpts than for HSNL and LSNL excerpts, suggesting the possibility of participants’ high preference for aggressive lyrics.

Table 4-7

Means and Standard Deviations for Preference Scores for Each Musical Excerpt

<table>
<thead>
<tr>
<th>Conditions of Musical Stimuli</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSAL</td>
<td>26.30</td>
<td>9.00</td>
</tr>
<tr>
<td>HSNL</td>
<td>17.04</td>
<td>9.89</td>
</tr>
<tr>
<td>LSAL</td>
<td>26.78</td>
<td>9.38</td>
</tr>
<tr>
<td>LSNL</td>
<td>18.78</td>
<td>10.43</td>
</tr>
</tbody>
</table>

Note: HSAL = High Stimulation with Aggressive Lyrics; HSNL = High Stimulation with Nonaggressive Lyrics; LSAL = Low Stimulation with Aggressive Lyrics; LSNL = Low Stimulation with Nonaggressive Lyrics.

One multiple regression was conducted to evaluate how much the preference for musical excerpts was related to young offenders’ sensation-seeking levels. The independent variables were preference scores in four conditions: High Stimulation with Aggressive Lyrics (HSAL), High Stimulation with Nonaggressive Lyrics (HSNL), Low Stimulation with Aggressive Lyrics (LSAL), and Low Stimulation with Nonaggressive Lyrics (LSNL). The dependent variable was the overall BSSS score. The multiple
regression was used based on the assumption that there was a linear relationship between BSSS scores and the preference for musical stimuli (HSAL, HSNL, LSAL, and LSNL).

The intercorrelations for the BSSS and the conditions of musical stimuli are shown in Table 4-8. Contrary to expectations, the prediction for BSSS scores by the preference for musical stimuli was not statistically significant. The variance of sensation seeking in the sample was probably not accounted for by the conditions of musical stimuli, $R^2 = .07, F(4, 49) = .88, p = .485$. Specifically, preference scores for the musical conditions accounted for only 7% of the variance in BSSS scores. The LSAL music condition, however, appeared to reach a marginal significance in predicting BSSS, meaning that the high preference scores in the LSAL condition were associated with higher sensation-seeking scores. In addition, a significant correlation was found between the HSAL and LSAL preferences, indicating that high preference scores for the HSAL condition were associated with high preference scores for the LSAL condition as well. Although this was a significant relationship, the causal direction was undecided.
Table 4-8

*Intercorrelations for BSSS Scores and Music Condition Preference Scores*

<table>
<thead>
<tr>
<th>Variable</th>
<th>HSAL</th>
<th>HSNL</th>
<th>LSAL</th>
<th>LSNL</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSSS</td>
<td>.12</td>
<td>.09</td>
<td>.23*</td>
<td>.07</td>
</tr>
</tbody>
</table>

Independent Variables

1. HSAL
2. HSNL
3. LSAL
4. LSNL

*p < .10, **p < .01.

**Main Analysis**

A mixed factorial analysis of variance (ANOVA) was conducted to investigate the relationships between sensation-seeking levels and the music-stimulation levels and the lyrics-aggression levels of rap music. The independent variables were the BSSS scores, the music-stimulation levels, and the lyrics-aggression levels. The dependent variable was the preference scores for the four conditions of musical stimuli.

The three-way interaction of music-stimulation, lyrics-aggression, and sensation seeking did not yield a statistical significance, $F(1, 52) = .310, p = .580$. None of the possible interactions were found to be statistically significant.

A statistically significant main effect, however, was found in lyrics-aggression levels, $F(1, 52) = 26.444, p < .01$. The significance suggested that the lyrics-aggression levels tend to affect the preference levels for rap music. Participants responded with high
preference levels to aggressive lyrics categories regardless of their sensation-seeking levels and regardless of the stimulation levels of the music. The lyrics themselves could have the most powerful relationship with rap-music preference.

Figure 4-3. Mean Preference Scores for Lyrics-Aggression Levels.

Four regressions were conducted to evaluate how well the BSSS scores predicted the young offenders’ preference levels of musical stimuli. The predictor variable was the BSSS score, whereas the criterion variable was each type of music: HSAL, HSNL, LSAL, and LSNL. Although none of the four regressions yielded statistical significance, the prediction of the preference levels for the LSAL music condition reached marginal statistical significance (See Table 4-9).

The correlation between the BSSS and the LSAL music condition demonstrated marginal statistical significance, $R^2 = .06$, $F(1,53) = 3.52$, $p = .066$. The correlation
indicated that sensation seeking accounted for approximately 6% of the variance in the
preference levels for the LSAL condition. Higher BSSS scores were most likely to have a
significant contribution to the preference for the LSAL music condition.

Table 4-9

*Correlations of Individual Music Conditions Preference Scores with BSSS Scores*

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSAL</td>
<td>.02</td>
<td>.287</td>
</tr>
<tr>
<td>HSNL</td>
<td>.01</td>
<td>.483</td>
</tr>
<tr>
<td>LSAL</td>
<td>.06</td>
<td>.066*</td>
</tr>
<tr>
<td>LSNL</td>
<td>.01</td>
<td>.603</td>
</tr>
</tbody>
</table>

*Note.* Predictor = BSSS.
*p < .10.

In addition, four multiple regressions were conducted to evaluate how well the
subscales of the BSSS scores of young offenders predicted their preferences for musical
stimuli. The subscales of the BSSS included Disinhibition, Experience Seeking, Boredom
Susceptibility, and Thrill and Adventure Seeking. The set of predictor variables included
four subscales of BSSS, whereas the criterion variables were one of the four musical
conditions, including HSAL, HSNL, LSAL, and LSNL, for each multiple regression.

The correlations of the linear combinations of predictors and the preferences for
musical stimuli are presented in Table 4-10. Although the BSSS subscales were not
significantly related to any of the music conditions, approaching marginal statistical
significance was found in predicting HSNL music preference levels,
The multiple correlation indicated that the BSSS subscales accounted for approximately 15% of the variance of HSNL music preference levels. There was also statistical significance in the relative strength of the individual predictors.

**Table 4-10**

*Correlations between the BSSS Subscales and Music Conditions*

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSAL</td>
<td>.09</td>
<td>.29</td>
</tr>
<tr>
<td>HSNL</td>
<td>.15</td>
<td>.08*</td>
</tr>
<tr>
<td>LSAL</td>
<td>.09</td>
<td>.32</td>
</tr>
<tr>
<td>LSNL</td>
<td>.01</td>
<td>.95</td>
</tr>
</tbody>
</table>

*Note: Predictors = Disinhibition, Experience Seeking, Boredom Susceptibility, Thrill and Adventure Seeking.  
*p < 1.0*

The weights associated with the regression equations are displayed in Table 4-11. The $b$ values in the table show the change of preference scores resulting in the increase of one score unit of the predictors. Both Thrill and Adventure Seeking and Disinhibition approached a statistically significant relationship to the preference score of the HSNL music condition. When one score unit of Thrill and Adventure Seeking subscale is increased, the preference score for HSNL music condition tends to decrease by 3.164. Likewise, when one score unit of Disinhibition is increased, HSNL preference score tends to increase by 3.446.
Table 4-11

*Unstandardized Coefficients of BSSS Subscales for Music Conditions*

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HSAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience Seeking</td>
<td>-2.249</td>
<td>.128</td>
</tr>
<tr>
<td>Boredom Susceptibility</td>
<td>1.334</td>
<td>.370</td>
</tr>
<tr>
<td>Thrill and Adventure Seeking</td>
<td>1.556</td>
<td>.222</td>
</tr>
<tr>
<td>Disinhibition</td>
<td>.182</td>
<td>.899</td>
</tr>
<tr>
<td><strong>HSNL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience Seeking</td>
<td>1.721</td>
<td>.266</td>
</tr>
<tr>
<td>Boredom Susceptibility</td>
<td>1.245</td>
<td>.427</td>
</tr>
<tr>
<td>Thrill and Adventure Seeking</td>
<td>-3.164</td>
<td>.021*</td>
</tr>
<tr>
<td>Disinhibition</td>
<td>3.446</td>
<td>.026*</td>
</tr>
</tbody>
</table>

*p < 0.5  
*Note: Table 4-11 continues on the next page.*
Table 4-11 (continued from previous page)

*Unstandardized Coefficients of BSSS Subscales for Music Conditions*

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LSAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience Seeking</td>
<td>-.455</td>
<td>.765</td>
</tr>
<tr>
<td>Boredom Susceptibility</td>
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<td>.903</td>
</tr>
<tr>
<td>Thrill and Adventure Seeking</td>
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<td>.379</td>
</tr>
<tr>
<td>Disinhibition</td>
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<td>.219</td>
</tr>
<tr>
<td><strong>LSNL</strong></td>
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<td></td>
</tr>
<tr>
<td>Experience Seeking</td>
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<td>.951</td>
</tr>
<tr>
<td>Boredom Susceptibility</td>
<td>-.163</td>
<td>.928</td>
</tr>
<tr>
<td>Thrill and Adventure Seeking</td>
<td>1.116</td>
<td>.469</td>
</tr>
<tr>
<td>Disinhibition</td>
<td>-.608</td>
<td>.725</td>
</tr>
</tbody>
</table>

Table 4-12 presents indices of the relative strength of the individual predictors.

Based on bivariate correlations, the HSAL preference levels and Boredom Susceptibility and the HSAL preference levels and Thrill and Adventure Seeking approached statistical significance. Significant bivariate correlations were found between Disinhibition and HSNL; Thrill and Adventure Seeking and LSAL; and Disinhibition and LSAL. They are all positive correlations, indicating that an increase in each of those subscale scores can
significantly predict the preference scores for the corresponding conditions of music regardless of the other predictors.

The statistical significance of partial correlations, based on unstandardized coefficients of predictors in Table 4-11, is displayed in the right column of Table 4-12. Partial correlations indicated that the HSNL preference levels are significantly affected by the subscales of Thrill and Adventure Seeking and Disinhibition when controlling for the other predictors. Thrill and Adventure Seeking and Disinhibition accounted for the HSNL preference scores by, respectively, 10% (-.32 = .10) and 9% (.30 = .09).

Table 4-12

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Bivariate Correlations</th>
<th>Partial Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSAL</td>
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</tr>
<tr>
<td>Experience Seeking</td>
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<td>-.21</td>
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<tr>
<td>Boredom Susceptibility</td>
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<td>.13</td>
</tr>
<tr>
<td>Thrill and Adventure Seeking</td>
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<td>.17</td>
</tr>
<tr>
<td>Disinhibition</td>
<td>.13</td>
<td>.02</td>
</tr>
</tbody>
</table>

*p. < 1.0, **p. < 0.5

Note: Bivariate correlation = Correlations between each predictor and music conditions; Partial correlation = Correlations between each predictor and music conditions controlling for all other predictors.

Note: Table 4-12 continues on the next page.
Table 4-12 (continued from previous page)

*Bivariate and Partial Correlations between BSSS Subscales and Music Conditions*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Bivariate Correlations</th>
<th>Partial Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HSNL</strong></td>
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<td></td>
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<td>.16</td>
</tr>
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<td>Boredom Susceptibility</td>
<td>.11</td>
<td>.11</td>
</tr>
<tr>
<td>Thrill and Adventure</td>
<td>-.09</td>
<td>-.32**</td>
</tr>
<tr>
<td>Seeking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disinhibition</td>
<td>.23**</td>
<td>.30**</td>
</tr>
<tr>
<td><strong>LSAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience Seeking</td>
<td>.09</td>
<td>-.04</td>
</tr>
<tr>
<td>Boredom Susceptibility</td>
<td>.12</td>
<td>-.02</td>
</tr>
<tr>
<td>Thrill and Adventure</td>
<td>.24**</td>
<td>.12</td>
</tr>
<tr>
<td>Seeking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disinhibition</td>
<td>.27**</td>
<td>.17</td>
</tr>
</tbody>
</table>

*p. < 1.0, **p. < 0.5

*Note:* Bivariate correlation = Correlations between each predictor and music conditions; Partial correlation = Correlations between each predictor and music conditions controlling for all other predictors.

*Note:* Table 4-12 continues on the next page.
Table 4-12 (continued from previous page)

*Bivariate and Partial Correlations between BSSS Subscales and Music Conditions*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Bivariate Correlations</th>
<th>Partial Correlations</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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</tr>
<tr>
<td>Boredom Susceptibility</td>
<td>.02</td>
<td>-.01</td>
</tr>
<tr>
<td>Thrill and Adventure</td>
<td>.11</td>
<td>.10</td>
</tr>
<tr>
<td>Seeking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disinhibition</td>
<td>.01</td>
<td>-.05</td>
</tr>
</tbody>
</table>

*p < 1.0, **p < 0.5

*Note:* Bivariate correlation = Correlations between each predictor and music conditions; Partial correlation = Correlations between each predictor and music conditions controlling for all other predictors.

*Additional Findings: Narrative Responses*

Narrative responses were collected for further interpretation. The participants were asked to choose their most favorite and least favorite music selections and to indicate their reasons for their choices. The open-ended questions allowed the participants to express their opinions about the musical stimuli.

In the narrative responses, the lyric content was the most popular reason for music preference (see Appendix K). More than 60% of the participants indicated the lyric content as their reasons for the preference level rating. The participants had positive attitudes toward the music selections when the message in the lyrics was real to them. On the other hand, when the participants did not understand the lyrics or when the lyrics did
not convey a message that was true to them, the participants expressed negative attitudes about the music selections.

The examples of responses for favorite rap selections were, “[The rapper] said things that I go through and have been through” and “it’s real, it’s not some fairytale rap.” Some of their reasons for the least favorite rap selection were, “[I]t talks about nonsense and seems to me to be a lot of noise, unnecessary noise,” and “too much noise and talks nothing real was a disappointment.” Whether or not the lyrics were understandable seemed to be an important factor in participants’ liking of music.

Other factors included the beat or tempo of the music, the artist, and the flow of the music. It is interesting to note that unfavorable comments about the music selections in the aggressive lyrics categories were mainly about the aggressiveness of the lyrics. The unfavorable comments on nonaggressive lyrics categories were mainly about the beat and flow of the music; it was not their “type” of music.

**Summary**

The hypotheses being tested were: 1) There will be a significant relationship between sensation-seeking levels and the music-stimulation level preference of young offenders; and 2) There will be a significant relationship between sensation-seeking levels and the lyrics-content preference of young offenders. A three-way mixed ANOVA and multiple regressions were conducted to investigate these questions.

Contrary to expectations, no significant relationship was found between sensation-seeking levels and the music-stimulation level preference of young offenders. Likewise, there was no significance in the relationship between sensation-seeking levels and lyrics-aggression level preference. The lyrics-aggression levels, however, appeared to
have a significant effect on the preference levels for music in young offenders. The result indicated that they tend to prefer the music with aggressive lyrics to music with nonaggressive lyrics.

In line with the results of the ANOVA, narrative responses suggested that the lyrics tended to influence the preference for music. When the subjects of the lyrics were familiar and consistent with their beliefs, the participants expressed positive attitudes toward the music.

Multiple regressions revealed the relative weight of the four subscales of sensation-seeking levels in predicting the preference levels of musical stimuli. The findings indicated that the Thrill and Adventure Seeking and Disinhibition subscales of sensation seeking scores tended to predict the preference levels for the HSNL conditions of music. As the Thrill and Adventure Seeking subscale scores increased, the preference level for HSNL music tended to decrease. On the other hand, when the Disinhibition subscale score increased, the preference level for HSNL tended to increase.
CHAPTER 5

Discussion

This study investigated the relationship between sensation seeking and young offenders’ preference for the levels of stimulation found in rap music. In addition, the researcher examined the relationship of specific subcategories of sensation seeking in order to predict the preferred levels of stimulation. This chapter presents interpretations of the results of the statistical analysis, limitations of the study, and recommendations for future research.

Music-Stimulation

One aim of the present study was to investigate the relationship between sensation-seeking levels and music-stimulation preference levels of young offenders. Previous research found that high sensation seekers have a tendency to listen to music genres with high stimulation such as heavy metal, rock, and rap (Arnett, 1993; Gardstrom, 1999; Miranda & Claes, 2003; Schwartz & Fouts, 2003; Took & Weiss, 1994). Individuals with high sensation seeking may prefer high levels of stimulation in order to satisfy their psychophysiological need for excitement. These individuals supposedly desire stronger stimulation than low-sensation seekers, who require less stimulation to achieve feelings of satisfaction.

The researcher expected to find that high sensation seekers would prefer rap music with high levels of stimulation. Even within one genre of music, young offenders may prefer higher levels of music stimulation in order to satisfy their sensation seeking. The researcher expected that the listening condition of High Stimulation with Aggressive Lyrics (HSAL) would receive a higher preference rating than Low Stimulation with
Aggressive Lyrics (LSAL). In addition, High Stimulation with Nonaggressive Lyrics (HSNL) would receive a higher rating than Low Stimulation with Nonaggressive Lyrics (LSNL). In conjunction with the lyrics-aggression levels, the assumption was that young offenders would have the highest preference for HSAL and the lowest preference for LSNL. Significant differences were expected to appear in the preference scores of High Stimulation (HS) and Low Stimulation (LS) categories.

Two relationships regarding music stimulation were found to be counter to the initial expectation, whereas two other relationships appeared as expected in the analysis of lyrics aggression. As expected, most participants preferred rap music with High Stimulation with Aggressive Lyrics (HSAL) to High Stimulation with Nonaggressive Lyrics (HSNL). Moreover, young offenders’ preference scores for the Low Stimulation with Aggressive Lyrics (LSAL) category were higher than that for Low Stimulation with Nonaggressive Lyrics (LSNL). However, contrary to expectations, the LSAL score was as high as the HSAL, and LSNL obtained a somewhat similar score to HSNL.

According to the statistical analysis, there was no statistically significant relationship between sensation seeking and music stimulation. Individuals with higher sensation-seeking scores did not necessarily choose the HS categories. Participants’ narrative responses revealed that frequently the “beat” of the music influenced their choices. Young offenders appear to prefer a rap beat that will “vibe” and “motivate” them. For example, one narrative response to the question of favorite music was “I like the beat.” To explain their least liked preference, they responded with “the beat did not motivate me” or “I don’t vibe like that.”
Beat is the basic unit of duration that underlies the rhythmic structure of a musical piece (Radocy & Boyle, 2003). Most music is organized around regularly recurring beats, dividing duration into equal segments. Listeners experience, feel, and extrapolate beats rather than listening to them in a literal way. However, the beat listeners feel in response to music is not necessarily the same as is specified by the written meter signature. The felt beat, or the felt unit of beats, is often called pulse or true beat, in contrast to the metric beat, which is indicated by meter signature. Thus, a “true beat” is what the participants called “the beat” in the narrative responses.

The repetitiveness of the rap-music soundtrack may explain why participants’ responses often referred to “the beat,” as it is the most fundamental level of music perception. Because the rap beat organizes and maintains rhythm over time, it is reported to motivate movement (Radocy & Boyle, 2003). Hence, the beat may be the fundamental element to which the listeners respond. It is plausible to conclude that the participants were attracted to the categories of rap music in which the beat was easily detected and experienced with minimum effort. In contrast, they were not attracted to the rap-music categories in which they needed to make an effort to detect the beat.

Lyrics-Aggression

The second purpose of this study was to investigate the relationship between levels of sensation-seeking trait and the preference for lyrics-aggression of young offenders. High-stimulation music tends to have aggressive words in the lyrics. As a result, researchers who study youth conduct problems often focus on the influence of the music (Anderson, 2003; Arnett, 1993). Anderson and Arnett found that rap lyrics in fact received a lot of attention from young listeners, probably in order to consolidate their
cultural identity. Findings from previous research indicate that individuals who acted violently, usually the ones with a high sensation-seeking trait, were more likely to prefer aggressive lyrics.

The researcher expected to find that high sensation seekers would prefer the AL categories. HSAL was expected to obtain higher preference ratings than HSNL, and LSAL higher rating than LSNL. As expected, young offenders preferred the AL categories much more than the NL categories.

The statistical analysis revealed that the participants had high preference levels for aggressive lyrics regardless of their sensation-seeking levels. As stated earlier, young offenders shared greater preference for the AL categories with both HS and LS than for the NL categories. There was a main effect of the preference for lyrics-aggression that approached statistical significance. This statistically significant finding indicated that young offenders had a tendency to prefer aggressive lyrics regardless of their sensation-seeking levels.

The importance of the lyrics was also seen in the narrative responses. Sixty-five percent of participants shared that the ideas or stories communicated by the artist were the reasons for liking or disliking a music category. The participants preferred the lyrics when they found events in the lyrics that were similar to their own experiences and beliefs. In contrast, they stated that they did not like lyrics when the events in the lyrics seemed unfamiliar or “not true” to them. Moreover, the participants did not like a music category when they did not understand the lyrics. The young offenders appear to have been attracted to the lyrics that reflected their own life experiences, and those experiences may have been found in the music categories that included AL.
Sensation Seeking

The participants’ sensation seeking did not appear to be as high as that of other same-age demographic groups. Sensation-seeking levels of the participants were lower than those of junior high school and high school students described in related literature on the BSSS (Hoyle et al., 2002). High levels of sensation seeking in young offenders have been reported in previous research (Arnett, 1993, 1995; Daderman, 1999; Greene et al., 2000; Kelly et al., 2004; Vitacco & Rogers, 2001; Zuckerman, 1994, 2007).

The low sensation-seeking levels based on self-reported scores suggest that their responses might be affected by the situation in which they are placed. Even though the residential institution is in the form of a public school, all students are under supervision 24 hours a day in the interest of their own or others’ security. The students are expected to refrain from violent conduct. This expectation is reinforced by seven different levels of student status based on the students’ self-control. The status of each student is expressed by the use of different shirt colors. For example, green represents “excellent” status, and blue represents “observation” status. As the students learn to behave with self-control, they obtain increased privileges, such as permission to go home on weekends. It is possible that this structured environment prevented the participants from having favorable responses to sensation-seeking statements on the BSSS.

The four subscales of sensation seeking (Experience Seeking, Boredom Susceptibility, Thrill and Adventure Seeking, and Disinhibition) further explained the group characteristics of the participants. Experience Seeking is a desire for internal stimulation through sensory and cognitive experiences. Boredom Susceptibility is an unwillingness to tolerate routine. Thrill and Adventure Seeking is a desire to seek unusual
stimulation from physical activities. Disinhibition is a search for external stimulation from social activities.

The high score of Disinhibition and the low score of Thrill and Adventure Seeking matched the scores of prisoners in a previous study (see Zuckerman, 1994). Prisoners actually exhibited an overall sensation-seeking level that was similar to a group of firemen. High sensation seekers are a typical population in a dangerous vocation. The firemen were higher in Thrill and Adventure Seeking than were prisoners, and the prisoners were higher in Disinhibition than the firemen. The firemen were willing to take dangerous actions for the sake of physical stimulation. On the other hand, the prisoners were not willing to engage in risky activities just to get physical stimulation.

The choice of items on the BSSS could also explain the low Thrill and Adventure Seeking of the participants. One of the two items, which corresponds to Thrill and Adventure Seeking, states “I would like to try bungee jumping.” This particular activity, bungee jumping, might be uncommon for the participant population because it may have been unaffordable, and, therefore, an unattainable experience. It is also more commonly experienced in rural than urban areas, so this population would have few opportunities to participate in it. The young offenders may have had little interest in the activity as it is not easily available to them.

The descriptive statistics of the subscale scores indicated that the participants in the present study had characteristics similar to delinquents, despite having self-reported sensation-seeking levels that were not as high as that of other delinquents. It seems that the Thrill and Adventure Seeking dimension brings out sensation seeking in positive behavior (e.g., being an athlete), whereas Disinhibition brings out the drive in negative
behavior. Another possible explanation for the low sensation-seeking levels was that sensation seeking might also be high in adolescents regardless of the existence of behavioral problems. The difference may be found in the subscales rather than in overall sensation seeking. The subscale scores suggest that the participants have a tendency to get stimulation through social activities, such as parties and social drinking. It seems less likely that the participants will attempt to engage in sports or other physically risky activities (e.g., parachuting, firefighting) in order to obtain unusual sensations of speed or defiance of gravity. The different weights of the subscales may indicate a distinction between delinquents and nondelinquents.

Although the overall sensation-seeking levels did not have a significant relationship to the preference for music categories, two subcategories, Thrill and Adventure Seeking and Disinhibition, did have a statistically significant relationship with HSNL preference scores. The significant negative relationship of Thrill and Adventure Seeking and the significant positive relationship of Disinhibition to HSNL may be explained as follows; the characteristics of the HSNL music included a fast tempo, repeated interruptions with a slow-tempo, lyrical phrase, and lyrics accompanied by a fast tempo. The tempo of HSNL music was the fastest of the four categories, and the lyrics were not clearly understood by some participants because of the tempo, according to the narrative responses. The narrative responses revealed that some participants perceived the HSNL music as “too fast.” Changes in tempo were also mentioned as the reason for not liking the HSNL music. In this condition, the fast tempo was interrupted by a slow-tempo phrase several times. In fact, music-stimulation levels did not appear to influence preferences for the music categories. The primary reasons for not liking the HSNL music,
among those who indicated that HSNL was their least favorite, were that the tempo was
too fast and that the lyrics were unclear.

These characteristics of the music may lead to the idea that two of the subscales,
Thrill and Adventure Seeking and Disinhibition, have some relationship with the
participants’ music preferences. For individuals who are more willing to get stimulation
through physical activities, the characteristics of HSNL music were possibly irritating
because the stimulus was not clearly defined for the individuals. Engaging in dangerous
physical activities is usually the result of a voluntary decision. People conceivably have
an idea of the kind of stimulation they want. The unclearly delivered stimulation,
specifically, the lyrics and song form, might be distasteful to them.

On the other hand, for those who were high in Disinhibition, the HSNL music
seemed to be attractive. These individuals reported, on BSSS, that they preferred
stimulation in social experiences. These are activities that involve other people, and such
activities offer an unpredictable experience. Individuals with high Disinhibition are
probably thrilled by the idea of a chaotic atmosphere because they are not overly
bothered by the unknown. The unknown may become an additional stimulation.
Therefore, they might not give serious consideration to unclearly delivered lyrics as long
as they are satisfied with an intense beat and sound.

Conclusion

The findings indicate that the participants made their music preference decision
largely based on the lyrics. Experiencing the beat in response to music, however, also
seemed to play a part in music preference decision making. It seemed that the participants
paid attention to the soundtrack prior to listening to the lyrics. When the participants
preferred the felt beat of a rap piece, they then made a music preference decision regarding the lyrics. If they disliked the beat, they might have decided not to proceed with the process and to reject the piece.

The preference for stimulation levels in rap music can be accounted for by LeBlanc’s (1982) model of sources of variation in music preference (see Figure 2-2). Musical input (in this case, rap music) as information is presented to listeners and is processed through several stages. LeBlanc’s initial level of “physical properties of stimulus” includes the beat perception of rap music, whereas the lyrics content would satisfy the “referential meaning of stimulus.”

The musical input information is then perceived by listeners (i.e., “physiological enabling conditions”), meaning that the piece is heard with the normal hearing abilities of individuals. Listeners then give their “basic attention” to the rap-music piece. It is possible that some listeners will not pay attention to the piece because they are not able to detect the rap-music beat. At this point in the process, the choice of listening is also influenced by listeners’ “current affective state.” For example, if listeners perceive the piece as irritating or dull, they will experience dissatisfaction and will not listen to it.

Once the piece is heard, attended to, and matched with individuals’ affective states, then the contextual information about the piece interacts with listener characteristics. It is at this time that sensation seeking (i.e., LeBlanc’s “personality” of the listener) may interact with the music-stimulation level and lyrics-aggression level. The lyrics content closely interacts with many characteristics of listeners’ lives, such as “sex,” “ethnic group,” “socioeconomic status,” and “maturation.” These characteristics interact with each other, and the music stimulus interacts with sensation seeking,
resulting in a variety of interactions related to the lyrics-aggression level. In terms of music stimulation, the beat as the distinctive and fundamental element of music stimulation has already been accepted through “basic attention.” Thus, fewer interactions remain between listener characteristics and music stimulation. That is, the lyrics can be understood as being related to more of the listener characteristics than to music stimulation.

While processing the stimulus properties of the rap-music piece, listeners may become more aware of the lyrics content than of their sensation seeking and the music-stimulation levels. The more the lyrics content interacts with listener characteristics, the more the listener might be able to relate to the lyrics content. Finally, the listener makes a judgment of music preference. It is plausible that thinking about the lyrics makes up a large part of the preference for stimulation levels.

Therefore, the lyrics may be interpreted at a higher level of consciousness than music stimulation. This interpretation may be the reason that music stimulation did not seem to have observable significance for young offenders when deciding rap-music preferences. The association with the lyrics (i.e., “referential meaning of stimulus”) may have had a huge impact on music preference.

The lyrics themselves may serve as a way to reduce the sensation-seeking drive. The seeming truthfulness of the stories conveyed in the aggressive lyrics might allow the participants to feel a connection with the music. When young offenders think that the rap artists speak for them, they may feel validated. In fact, seeking social acceptance can be related to the Disinhibition dimension of the sensation-seeking trait. Sensation seeking through social activities can be the behavioral response to the desire for acceptance
(Zuckerman, 2007). This may indicate that individuals with high Disinhibition have a strong desire for acceptance. When they listen to aggressive lyrics, they probably satisfy their psychological needs by feeling supported and accepted. If the validation increases the esteem and security of young offenders, drive reduction might occur (Peer et al., 1982). Nevertheless, the findings of the present investigation are insufficient to support drive reduction theory in this context.

Clinical Implications

In addition to expanding the understanding of rap-music preferences of young offenders, the results also suggest possible considerations for music therapy. In music therapy assessment, music therapists need to take the clients’ favorite musical selections and their lyrics into account. The information in the lyrics may be helpful to music therapists when assessing the emotional, psychological, and cognitive state of their clients.

Rap lyrics, as chosen by the clients, may provide the music therapist with a more accurate understanding of the client’s background, as well as the client’s current psychological state. According to the narrative results of this study, young offenders showed a preference for lyrics that matched their experiences and beliefs. When music therapists utilize clients’ favorite rap music, the clients may be likely to disclose their life experiences. Clients’ favorite rap-music selection in music therapy treatment could help clients build a connection with the music therapist. The messages communicated through a desired rhythm will be more likely to get clients’ attention than the messages built on an unfamiliar or less desired rhythm. Further, music therapists may modify the lyrics to
convey feelings, thoughts, and stories, as well as having their clients create or modify the lyrics to express themselves.

Thus, the selection of music for music therapy sessions should be based on an understanding of the client’s preference. Accepting clients’ favorite music may help music therapists discover the roots of clients’ emotional response to the lyrics, such as cultural identity. Understanding clients’ perception of the emotion in lyrics may allow them to feel secure about disclosing themselves. When music therapists grasp the characteristics of clients’ favorite music, they can select music more effectively. However, a need of caution is necessary. It is important to consider the possibility that the aggressive nature of the lyrics may stimulate young offenders to “act out” negatively.

Limitations

As in any investigation, the present study is subject to certain limitations. Issues relevant to the selection of musical stimuli will be discussed.

The first limitation is pertinent to the initial selection of the pilot study’s 12 rap pieces. The selections were chosen from the researcher’s own rap-music collection, which was limited in the variety of artists and number of pieces. More variety and a larger collection would make it possible to showcase larger differences in the music stimulation levels of music selections. If a larger collection of rap-music recordings had been used, the results of the pilot study might have shown larger differences in the perceived stimulation levels of the selections, which would have produced more reliable results, both for the pilot study and the main study.

Based on the responses of the pilot study, three different rap artists were selected. Two rap selections were performed by the same artist, which confounded the results of
the present study as the second limitation. The AL conditions with both HS and LS were works by 50 Cent. The HSNL music was performed by OutKast. The LSNL music was a work by Talib Kweli. Because higher preference scores were achieved by both AL categories, it is plausible that the performing artists of each condition affected the preference scores of the participants.

The third limitation would be the participant population of the pilot study. The researcher decided to recruit introductory psychology students at a private university because of easy access to the participant pool and the variety of the participants’ characteristics. The perception of the stimulation levels of the music selections of the pilot study participants, however, might be different from that of the main study participants. The difference probably confounded the main study outcomes on music preference scores because the range of stimulation levels was determined by the perception of a noncomparative group. In order to produce proper range of music stimulation levels for the main study participants, the comparative group of age, ethnicity, and background could have been recruited.

The effect of rap artists is the fourth limitation. Among the three artists selected for the main study, 50 Cent was apparently the most popular artist among the participants, and both selections by him obtained high preference scores. While his songs were played, many participants were able to recognize the pieces within first few notes and to recite the lyrics on the beat. It seemed that they had repeatedly listened to the rap music by 50 Cent prior to the present study. Few participants recognized the works by the other two artists. Previous frequent exposure to 50 Cent established familiarity with the music and
the lyrics. The familiarity may have been a factor in the increased preference levels for
the artist.

The fifth limitation is related to the number of the participants in the main study. The researcher recruited 55 participants at a local public school for the present investigation. Most participants responded with lower sensation-seeking levels, despite the researcher’s expectation. A larger group of participants would probably have produced a larger distribution of sensation-seeking levels, which might have revealed some relationships regarding the trait of sensation seeking.

The last limitation is pertinent to the analysis of results. The researcher set the cut-off score for deciding whether participants were high or low sensation seekers. A score of 3.75 was determined to be the cut-off score based on the previous study on BSSS. As a result, much smaller number of participants was considered high sensation seekers. However, the double-peak distribution of the participants’ sensation-seeking scores could have been analyzed using the mode as the cut-off score. Having a comparative number of participants in each condition by less conservative cut-off score might have exposed more informative statistical interactions.

Recommendations for Future Studies

Because familiarity with rap artists might have had a confounding effect on preference scores, ideally all selections of rap music would be equally familiar or unfamiliar to the participants. Conducting a survey addressing offenders’ favorite artists would aid in the identification of familiar artists and songs. Having more than one piece in each category could also control for the artist effect by allowing more possibilities to equalize the familiarity.
Another way of controlling for the effect of musical stimuli would be to compose original rap music. Composing original pieces would allow flexibility in creating the differences in the stimulation levels of music and the lyrics. Composers could control the tempo, pitch, chords, form, and the lyrics according to the desired level of stimulation. A confounding effect of familiarity can also be controlled with original rap pieces because all participants would be unfamiliar with that rap music and could respond without bias or preexisting preferences.

To control for artists, asking a scholarly opinions on music stimulation could be a way to reduce bias. A comprehensive knowledge of rap music and rap artists would make it possible to suggest music selections with various stimulation levels. Having more than one artist per category could also control for artist effect. When there are multiple choices of artists in a category, it would be less likely for an artist to be an exclusive focus.

A second recommendation would be to control for participant background. The length of facility stay, the severity of the crime, and a history of psychological disorders may influence the level of sensation seeking. If background information on the group is controlled, more precise relationships between rap-music preference and sensation seeking could be observed.

A third recommendation would be to address the causal direction of delinquent acts and rap-music preference. Although the results indicated that young offenders prefer aggressive lyrics to nonaggressive lyrics, it is unclear if their lyrics preference has negative effects. The aggressive lyrics may overly stimulate some young offenders. Overstimulation can allow them to lose control over themselves and may cause
delinquent behaviors. Future studies could be conducted on the overstimulating effect of favorite music.

Summary

The findings of this study indicate that a statistically significant number of young offenders preferred rap music with aggressive lyrics regardless of their sensation-seeking level, and that they preferred the music-stimulation level of rap music. However, the relationships between sensation seeking and music-stimulation and between sensation seeking and lyrics-aggression were not significant.

Analysis of the narrative responses indicated that the young offenders preferred the lyrics they could identify with. Lyrics that young offenders perceived as truthful mostly contained violence. Young offenders may feel supported and accepted by the rap artists and their music through lyrics that describe events similar to their own life stories.

These findings expand our understanding of young offenders’ preference for stimulation levels in rap music and provide useful guidelines for music therapy assessment and treatment. Young offenders probably filtered out the music according to the beat in the rap music (as explained using LeBlanc’s model). For example, if they did not like the beat, their decision making process would stop, and they would reject the music. In other words, they would listen to the lyrics only when they heard an acceptable soundtrack.

As noted above, the young offenders preferred lyrics that they recognized as true or reflective of their lives. This phenomenon supports the previous research suggesting that young people reflect on their lives through lyrics (Gardstrom, 1999; Jackson, 1995). This process may allow the participants to feel that their life experiences were validated.
Music therapists must be sensitive to the role rap music with aggressive lyrics plays in the lives of young offenders. Understanding the role of rap music could be a way of showing acceptance of clients’ identities, which in turn could be an opportunity for open communication of thoughts and feelings. Only after a healthy communication has been established should music therapists modify lyrics to influence the cognitive perceptions of young offenders.

Therefore, young offenders’ preference towards aggression in rap-music lyrics suggests that music therapists need to understand that rap lyrics may reflect the lives of the young offenders, and may provide an opportunity for discussion and the sharing of feelings. Young offenders, as reported here, think that rap lyrics depict their lives, and thus indicate that the chaos depicted in the lyrics has happened or is happening to them. The musical reflections of chaotic life may be the main contributor from which young offenders acquire security, support, belief, and encouragement to survive. Young offenders’ preference for aggressive lyrics suggest that there are many difficulties in their lives, and given that reality, music therapists need to be aware of the root of this preference.
References


Appendix A

Title of the Research Study:
Rap music perception of undergraduate students.

Purpose:
The purpose of this study is to find out perceptive stimulation levels in the music and aggressiveness in the lyrics. The result of the study will aid the understanding of musical preference of young people and the use of the preferred music for therapeutic purposes.

Procedures:
In a classroom in Psychology Department at the University of Miami, you will listen to 12 excerpts of rap music. You will be asked to respond to a set of four questions regarding each rap music excerpt on a questionnaire.

Risks:
There are no foreseeable risks.

Benefits:
No benefits can be promised to your participation in this study.

Alternatives:
You have the alternative not to participate in this study. You have the right not to participate in this study. Nothing will happen to you if you choose not to complete the survey.

Cost:
No costs are anticipated for you in this study.

Payment to participant:
Your participation will be voluntary. You will be awarded 2 credit points towards the satisfaction of the research familiarization requirement for Introduction of Psychology for your participation.

Confidentiality:
The investigators and their assistants will consider your records confidential and will do everything they can to protect them. Your records and results will not be identified as pertaining to you in any publication without your expressed permission. Even if you agree to participate, you are free to withdraw at any time without negative consequences. All information about you will remain confidential. Your records may also be reviewed for audit purposes by authorized University of Miami employees, the Department of Health and Human Services (DHHS), or other agents who must follow the same rules of confidentiality.

I.R.B.
APPROVAL DATE: 07/11/07
EXP. DATE: 07/10/08
INITIALS: 
Informed Consent 1 of 2
Right to withdraw:
Your participation is voluntary; you have the right to withdraw and your future care will not be prejudiced by your withdrawal or lack of participation. The principal investigator can remove you from the study without your consent whether because of their failure to follow the study or for administrative reasons. Your decision to participate or withdraw will not affect your standing at the University of Miami.

Other pertinent information:
The researcher will answer any questions you may have regarding the experiment. The researcher will give you a copy of this consent form. If you have any questions about your rights as a research participant, you should contact The Human Subject Research Office at 305-243-3195.

Principle Investigator: Teresa Lesiuk, Ph. D., MT-BC
Email: tlesiuk@miami.edu

Co-investigator: Kie Yamada, masters thesis
Email: kiyamada@umsis.miami.edu

PARTICIPANT AGREEMENT:
I have read the information in this consent form and agree to participate in this study. I have had the chance to ask any questions I have about this study, and they have been answered for me. I am entitled to a copy of this form after it has been read and signed.

________________________________________  __________________________
Signature of Participant                      Date

________________________________________  __________________________
Signature of person obtaining consent         Date
Music Scale

Date: __/__/__
Name: __________________________
Age: ______________ Year in College: __________________

Please indicate your response to each of the musical selections you listened to. Choose the score that describes your response to the items below according to the followings:

1 ——— Strongly disagree
2 ——— Disagree
3 ——— Agree
4 ——— Strongly agree

Items:
1. There are violent acts in the lyrics.
2. There is aggressiveness evident in the lyrics.
3. The artist(s)' vocal tone is calming.
4. The music is energizing.

(This set of items will be presented 12 times in the study)
Appendix C

Parental Permission Form

**Title of the Research Study:**
The relationship between sensation seeking and preference of rap music of young people.

**Purpose:**
Your child is being asked to participate in a research study to determine the musical stimulus and lyrics preference of young people conducted for the thesis research of the student researcher at the University of Miami. The purpose of this study is to find out a relationship between musical preferences and personalities. The result of the study will aid the understanding of musical preference of young people and the use of the preferred music for therapeutic purposes.

**Procedures:**
Your child will be asked to fill out a personality questionnaire. After filling out the questionnaire, your child will listen to four pieces of rap music. After each piece of music, your child will be asked to answer five questions on how your child feels about the music. At the end, your child will be asked to rate all the music in the order of his preference, and write down a few sentences of his responses to the music. It will take about one hour.

**Risks:**
The only physical and social risks known to be possible through participation in this study involve the lyric content (i.e., some violent lyrics) exposed to your child. There are no foreseeable risks.

**Benefits:**
There are no benefits to you or your child from your child’s participation in this study.

**Alternatives:**
Your child has the alternative not to participate in this study. You have the right not to let your child participate in this study. There will be no negative consequences to you and your child if your child chooses not to complete the survey.

**Cost:**
No costs are anticipated for you and your child in this study.

**Payment to participant:**
Your child’s participation will be voluntary. You will not be paid for your child’s participation in the study.

**Confidentiality:**
The principle investigator and the co-investigator will consider the responses of your child confidential and will keep them in a locked cabinet in Music Therapy Research Lab in the McKnight Building at University of Miami. You will be informed on the results of the study if you wish. Your and your child’s consent to participate in this study includes consent for the

I.R.B. APPROVAL DATE: 1/1/07
EXP: DATE: 6/7/07
INITIALS: ____________________________

Informed Consent 1 of 2
researcher to review your child’s personality score and his music preference scale scores that are collected. All information about the students will remain confidential. Your child’s research records may also be reviewed for audit purposes by authorized University of Miami employees, the Department of Health and Human Services (DHHS), or other agents who must follow the same rules of confidentiality.

**Right to withdraw:**

Your child’s participation is voluntary; he has the right to withdraw and his standing at Bay Point Schools will not be prejudiced by his withdrawal or lack of participation.

**Other pertinent information:**

The researcher will answer any questions you may have regarding the experiment. The researcher will give you a copy of this consent form. If you have any questions about your child’s right as a research participant, you should contact the Human Subject Research Office at 305-243-3195.

Principle Investigator: Teresa Lesiuk, Ph. D., MT-BC  
Email: tlesiuk@miami.edu

Co-investigator: Kie Yamada, masters thesis  
Email: kieyamada@umms.mi.edu

**Consent and Assent Instructions:**

**Consent:** For subjects under 18, consent is provided by the Legally Authorized Representative  
**Assent:** Is required for subjects ages 7 through 17 years using the separate Assent Form

**CONSENT SIGNATURE:**

__________________________________________________________  ____________________________
Child’s Name (Print)  Date

__________________________________________________________  ____________________________
Parent’s/Legally Authorized Representative’s Signature  Date

__________________________________________________________  ____________________________
Authority of Subject’s Legally Authorized Representative or Relationship to Subject  Date

Person conducting informed consent discussion:

__________________________________________________________  ____________________________
Signature  Date

I.R.B.  
APPROVAL DATE: 04/11/17  
EXP. DATE: 08/21/18  
INITIALS: ______________________

Informed Consent 2 of 2
Appendix D

Informed Assent Form

We would like to ask you to be in a research study about the relationship between personality and music preference of young people. We want to find out why young people like rap music.

We will ask you to answer some questions about yourself. After that, we will ask you to listen to four pieces of rap music and write down how you feel about the music. It will take about one hour.

All responses to the questions will be kept confidential.

You do not have to be in this study if you do not want to be. If you decide to stop after we begin, that’s okay too. No one will be mad at you if you decide not to do this study. You may ask questions about the study at any time.

Do you have any questions?

If you decide you want to be in this study, please sign your name.

I agree ______ I do not agree ______ to participate in this study which I have read or which has been explained to me by _____________________.

__________________________  ______________________
(Sign your name here)      (Date)

__________________________  ______________________
(Print your name here clearly)

__________________________  ______________________
(Signature of Person Obtaining Assent)   (Date)

Principle Investigator: Teresa Lesiuk, Ph. D., MT-BC
Email: tlesiuk@miami.edu

Co-investigator: Kie Yamada, masters thesis
Email: kyamada@umsis.miami.edu

I.R.B.
APPROVAL DATE 11/07
EXP. DATE 11/08
INITIALS
Title of the Research Study:
The relationship between sensation seeking and preference of rap music of young people.

Purpose:
You are being asked to participate in a research study to determine the musical stimulus and lyrics preference of young people conducted for the thesis research of the student researcher at the University of Miami. The purpose of this study is to find out a relationship between musical preferences and personalities. The result of the study will aid the understanding of musical preference of young people and the use of the preferred music for therapeutic purposes.

Procedures:
You will be asked to fill out a personality questionnaire. After filling out the questionnaire, you will listen to four pieces of rap music. After each piece of music, you will be asked to answer five questions on how you feel about the music. At the end, you will be asked to rate all the music in the order of your preference, and write down a few sentences of your responses to the music. It will take about one hour.

Risks:
The only physical and social risks known to be possible through participation in this study involve the lyric content (i.e., some violent lyrics) exposed to you. There are no foreseeable risks.

Benefits:
There are no benefits to you from your participation in this study.

Alternatives:
You have the alternative not to participate in this study. There will be no negative consequences to you if you choose not to complete the survey.

Cost:
No costs are anticipated for you in this study.

Payment to participant:
Your participation will be voluntary. You will not be paid for your participation in the study.

Confidentiality:
The principal investigator and the co-investigator will consider your responses of confidential and will keep them in a locked cabinet in Music Therapy Research Lab in the McKnight Building at University of Miami. You will be informed on the results of the study if you wish. Your consent to participate in this study includes consent for the
researcher to review your personality score and your music preference scale scores that are collected. All information about you will remain confidential. Your research records may also be reviewed for audit purposes by authorized University of Miami employees, the Department of Health and Human Services (DHHS), or other agents who must follow the same rules of confidentiality.

Right to withdraw:
Your participation is voluntary; you have the right to withdraw and your standing at Bay Point Schools will not be prejudiced by your withdrawal or lack of participation.

Other pertinent information:
The researcher will answer any questions you may have regarding the study. The researcher will give you a copy of this consent form. If you have any questions about your right as a research participant, you should contact The Human Subject Research Office at 305-243-3195.

Principle Investigator: Teresa Lesiuk, Ph. D., MT-BC
Email: tlesiuk@miami.edu

Co-investigator: Kie Yamada, masters thesis
Email: kiyamada@umsis.miami.edu

Consent and Assent Instructions:
Consent: For subjects under 18, consent is provided by the Legally Authorized Representative

CONSENT SIGNATURE:

Signature
Date

Informed Consent  2 of 2
Demographic Questionnaire

Participant #: ________________

1. Gender (circle one): Male Female

2. Grade in school: ________________________________

3. Ethnicity (circle one):
   - White Non-Hispanic
   - Black Non-Hispanic
   - Hispanic
   - Asian/Pacific Islander
   - American Indian/Alaska Native
   - Other ________________

4. What musical instruments have you played before and for how long?
   - Instrument: ________________ Time: ___________ (years)
   - Instrument: ________________ Time: ___________ (years)

5. What kind of music do you like? (Rate the top 3 choices)
   - Alternative __
   - Blues __
   - Classical __
   - Country __
   - Heavy metal __
   - International __
   - Latin __
   - Oldies __
   - Rap/Hip-hop __
   - Rock __
   - Other: ________________

6. How many hours do you listen to music a day? (circle one)
   a) 0 ~ 1 hours
   b) 2 ~ 3 hours
   c) 4 ~ 5 hours
   d) 6 ~ 7 hours
   e) 8 ~ 9 hours
   f) 10 ~ 11 hours
   g) more than 12 hours

7. Who is one of your favorite artists?

   ________________________________

8. What would you most like to play/sing? Please circle one.
   - Bass guitar
   - Drums
   - Guitar
   - Keyboard/Piano

I.R.B. Approval date: 12/15/07
Initiate: AVF
<table>
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<tr>
<th>Instrument</th>
<th>Sing/Rap</th>
<th>Trombone</th>
<th>Clarinet</th>
<th>Cello</th>
<th>Other:</th>
</tr>
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<td></td>
<td>Flute</td>
<td>Double bass</td>
<td>Violin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Saxophone</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G

Brief Sensation Seeking Scale

Participant #: __________________

Read the statements, and then, circle the number that states your opinion for each statement.

Your opinion: 1 = strongly disagree,
             2 = disagree,
             3 = neither disagree nor agree,
             4 = agree,
             5 = strongly agree.

1. I would like to explore strange places.
   1--2--3--4--5

2. I get restless when I spend too much time at home.
   1--2--3--4--5

3. I like to do frightening things.
   1--2--3--4--5

4. I like wild parties.
   1--2--3--4--5

5. I would like to take off on a trip with no pre-planned routes or timetables.
   1--2--3--4--5

6. I prefer friends who are excitingly unpredictable.
   1--2--3--4--5

7. I would like to try bungee jumping.
   1--2--3--4--5

8. I would love to have new and exciting experiences, even if they are illegal.
   1--2--3--4--5

I.R.B. Approval date: [Date]

[Signature]
Appendix H

Preference Scale

My Opinion of This Music

Participant #: ______________________

Directions: Indicate your judgment of the music by marking on your answer sheet the location between the two terms which you feel best characterized the music you heard.

Example:

Prefer X | | | | | | Hate

Prefer | | | | | | Hate

Approve | | | | | | Disapprove

Choose | | | | | | Discard

Like | | | | | | Dislike

Select | | | | | | Reject

I.R.B.
Approval date: 04/11/07
Initials: [Signature]
Appendix I

Music Rating

Participant #: __________________

1. Which rap selection did you like the most?  Music # ______

2. What did you like about your favorite rap?

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

3. Which rap selection did you like least?  Music # ______

4. What did you like or not like about your least favorite?

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

I.R.B.
Approval date: 09/11/07

Initialed: [Signature]
Appendix J

Song Lyrics

HS-AL
1. Gangsta Gangsta
2. What Up Gangsta?
3. Tear It Up
   HS-NL
4. Broken Glass
5. Ghetto Afterlife
6. GhettoMusik
   LS-AL
7. Back Down
8. Many Man (Wish Death)
9. In My Hood
   LS-NL
10. Keep Ya Head Up
11. Memories Live
12. Motivation
Gangsta Gangsta

N.W.A.

[Verse 1: Ice Cube]
Here's a little somethin' bout a nigga like me
never shoulda been let out the penititary
Ice Cube would like ta say
That I'm a crazy mutha fucka from around the way
Since I was a youth, I smoked weed out
Now I'm the mutha fucka that ya read about
Takin' a life or two
that's what the hell I do, you don't like how I'm livin
well fuck you!
This is a gang, and I'm in it
My man Dre'll fuck you up in a minute
With a right left, right left you're toothless
And then you say goddamn they ruthless!
Everwhere we go they say [damn!]
N W A's fuckin' up tha program
And then you realize we don't care
We don't just say no, we to busy sayin' yeah!
To drinkin' straight out the eight bottle
Do I look like a mutha fuckin role model?
To a kid lookin' up ta me
Life ain't nothin but bitches and money.
Cause I'm tha type o' nigga that's built ta last
If ya fuck wit me I'll put a foot in ya ass
See I don't give a fuck 'cause I keep bailin
Yo, what the fuck are they yellin

[Chorus]
Gangsta, Gangsta! That's what they're yellin
"It's not about a salary, it's all about reality" - KRS One
Gangsta, Gangsta! That's what they're yellin
"Hopin you sophisticated motherfuckers hear what I have to say"

[Verse 2: Ice Cube]
When me and my posse stepped in the house
All the punk-ass niggaz start breakin out
Cause you know, they know whassup
So we started lookin for the bitches with the big butts
Like her, but she keep cryin
"I got a boyfriend" Bitch stop lyin
Dumb-ass hooker ain't nuttin but a dyke
Suddenly I see, some niggaz that I don't like
Walked over to em, and said, "Whassup?"
The first nigga that I saw, hit em in the jaw
Ren started stompin em, and so did E
By that time got rushed by security
Out the door, but we don't quit
Ren said, "Let's start some shit!"
I got a shotgun, and here's the plot
Takin niggaz out with a flurry of buckshots
Boom boom boom, yeah I was gunnin
And then you look, all you see is niggaz runnin
and fallin and yellin and pushin and screamin
and cussin, I stepped back, and I kept bustin
And then I realized it's time for me to go
So I stopped, jumped in the vehicle
It's like this, because of that who-ride
N.W.A. is wanted for a homicide
Cause I'm the type of nigga that's built to last
Fuck wit me, I'll put my foot in your ass
See I don't give a fuck, cause I keep bailin
Yo, what the fuck are they yellin?

[Chorus]
Gangsta, Gangsta! That's what they're yellin
"It's not about a salary, it's all about reality" - KRS One
Gangsta, Gangsta! That's what they're yellin
"He'll tell you exactly how he feel, and don't want a fuckin thing back"

[Verse 3: Ice Cube]
Homies all standin around, just hangin
Some dope-dealin, some gang-bangin
We decide to roll and we deep
See a nigga on Dayton's and we creep
Real slow, and before you know
I had my shotgun pointed in the window
He got scared, and hit the gas
Right then, I knew I has to smoke his ass
He kept rollin, I jumped in the bucket
We couldn't catch him, so I said fuck it
Then we headed right back to the fort
Sweatin all the bitches in the biker shorts
We didn't get no play, from the ladies
With six niggaz in a car are you crazy?
She was scared, and it was showin
We all said "Fuck you bitch!" and kept goin
To the hood, and we was fin to
Find somethin else to get into
Like some pussy, or in fact
A bum rush, but we call it rat pack
On a nigga for nuttin at all
Ice Cube'll go stupid when I'm full of eight ball
I might stumble, but still I won't lose
Now I'm dressed in the county blues
Cause I'm the type of nigga that's built to last
If you Fuck wit me, I'll put my foot in your ass
I don't give a fuck, cause I keep bailin
Yo, what the fuck are they yellin?

[Intertlude: Ice Cube, Dr. Dre]
Wait a minute, wait a minute, cut this shit
"Man whatcha gonna do now?"
"What we're gonna do right here is go way back"
How far you goin back?
"Way back"
"As we go a lil somethin like this" - Slick Rick

Here's a lil gangsta, short in size
A t-shirt and Levi's is his only disguise
Built like a tank yet hard to hit
Ice Cube and Eazy E cold runnin shit

[Verse 4: Eazy E, MC Ren]
Well I'm Eazy E the one they're talkin about
Nigga tried to roll the dice and just crapped out
Police tried to roll, so it's time to go
I creeped away real slow and jumped in the six-fo'
Wit the "Diamond in the back, sun-roof top"
Diggin the scene with the gangsta lean
Cause I'm the E, I don't slang or bang
I just smoke motherfuckers like it ain't no thang
And all you bitches, you know I'm talkin to you
"We want to fuck you Eazy!" I want to fuck you too
Cause you see, I don't really take no shit
[So let me tell you motherfuckers who you're fuckin with]
Cause I'm the type of nigga that's built to last
If you Fuck wit me, I'll put my foot in your ass
I don't give a fuck, cause I keep bailin
Yo, what the fuck are they yellin?

[Chorus]
Gangsta, Gangsta! That's what they're yellin
"It's not about a salary, it's all about reality" - KRS One
Gangsta, Gangsta! That's what they're yellin
"He'll fuck up you and yours, and anything that gets in his way"

Gangsta, Gangsta! That's what they're yellin
"It's not about a salary, it's all about reality" - KRS One
Gangsta, Gangsta! That's what they're yellin
"He'll just call you a low-life motherfucker, and talk about your funky ways"
What Up Gangsta?

50 Cent

[50 Cent]
G-Unit (What)
We in here (What)
We can get the drama popping
We don't care (What, what, what)
It's going down (What)
'Cause I'm around (What)
50 Cent, you know how I gets down (Down)

[Chorus: repeat x 2]
What up, Blood? (What)
What up, Cuz? (What)
What up, Blood? (What)
What up, Gangstaaa?

[Verse 1]
They say I walk around like got an "S" on my chest
Naw, that's a semi-auto, and a vest on my chest
I try not to say nothing, the DA might want to play in court
But I'll hunt or duck a nigga down like it's sport
Front on me, I'll cut ya, gun-butt ya or bump ya
You getting money? I can't none with ya then fuck ya
I'm not the type to get knocked for D.W.I.
I'm the type that'll kill your connect when the coke price rise
Gangstas, they bump my shit then they know me
I grew up around some niggas that's not my homies
Hundred G's I stash it (what), the mack I blast it (yeah)
D's come we dump the diesel and battery acid
This flow's been mastered, the ice I flash it
Chokes me, I'll have your mama picking out your casket, bastard
I'm on the next level, bright ring bigot bezzel
Benz pedal to the metal, hotter than a tea kettle, blood (what)

[Chorus (1st time w/o first "What up, Blood?") (repeat x 2)]

[Bridge]
We don't play that
We don't play that
We don't play that (G-Unit)
We don't play around
[Verse 2]
I sit back, twist the best bud, burn and wonder
When gangstas bump my shit, can they hear my hunger?
When the 5th kick, duck quick, it sounds like thunder
In December I'll make your block feel like summer
The rap critics say I can rhyme, the fiends say my dope is a nine
Every chick I fuck with is a dime
I'm like Patty LaBelle, homie, I'm on my own
Where I lay my hat is my home, I'm a rolling stone
Cross my path I'll crush ya, thinking I won't touch ya
I'll have your ass using a wheelchair, cane, or crutches
Industry hoe fuckers, in the hood they love us
Stomp a bone out your ass with some brand new chuckas

[Chorus (repeat x 2)]

[Bridge (repeat x 4)]
Tear It Up

Yung Wun featuring DMX, David Banner, Lil' Flip

[DMX]
Yea, DMX
Straight out of ATL
Ya' Mean
We got Yung Wun, choppin that thing baby,
Once Again, Swiss Beats, Full Surface,

[Yung Wun]
Bounce, Bounce
When I'm drunk in the club, I might just start sum shit,
Block party in the hood, I might just start sum shit,
Underground Downtown, I might just start sum shit,
Gimme the keys to the city, Ima lock this bitch,
They aint gon take me alive and u can bet dat,
Hit 'em where the chest at,
Hit 'em where the neck at,
Show me where the rest at,
They in the same building livin' like a mess pack,
From my eyes from where the deck at
Bet Dat, Shawty,
U and me gonna ride over to the other side,
Its time these muthafuckas die,
First make a prank call and get the kidz out the house,
I aint tryin to kill no kids, Ima turn they lights out

[Chorus (repeat x 2): DMX]
AAAAAAHHHH, Tear it Up, Lemme see you Tear It Up
All across the board we gon Tear It Up,
We gon bounce it till the beat cut off,
We gon rock dis muthafucka till the wheels fall off

[David Banner]
Mississippi mutherfucker, Pop a dick in ur mouth,
Southside till i die, smokin dro in the drop,
I Make a bitch gimme money then I'm kickin her out,
I spit game to your wife, then we robbin your house,
Yall niggaz love that way that we grippin the grain,
If you got it and I want it, I aint callin your name,
Just lay it down, Fuck Boy, like I'm ballin G,
You get yo' chest in yo' lap if you fuckin with me
[Chorus (repeat x 2)]

[Lil' Flip]
You might catch me at the Rose Bowl game,
In a 4-door range,
With a Rose gold chain,
Wrapped around my neck,
Or I might be flashin' in a white G-wagon,
With my arm out the window, grippin' a Tech,
Dawg, get it right, I got Houston on lock,
I kit it right, I switch the lights every time I buy a drop,
Homey, U got Swiss on the beat,
I gotta come with da heat,
It's David Banner, Yung Wun, and F-L-I-P

[Chorus 2x]
Broken Glass

Talib Kweli feat. Pharrell

[Pharrell] Kweli!!!
[T. Kweli] Yeah! They wasn't expecting this! that's why ya
[Pharrell] Hahaha
[T. Kweli] Gotta hope for the best and play 'em for the worst, c'mon!
[Pharrell] Muhfuckers is history!
[T. Kweli] C'mon!!

[Verse 1: Talib Kweli]
This the story of - Lucy In The Sky Wit Diamonds
Ask her why she crying, she wanna live, she got no time for dying
Was a science, dreams too big for a small town
She gotta get to New York and watch a door fall down
Hopped off the Greyhound, gotta make her way now
She sleeping on the park benches in the playground
But cash burn quick, don't wanna have to turn trick
Ready to quit 'til she met the super pimp
Flashing his toothy smile that drove little Lucy wild
She quick to hop up on his dick straight Hoopie style
She let the fella hit but she sang she sell-a-bit [celebrate]
He ain't buying that, she ain't selling it
She looking for love in all of the above
Believing videos, trying to back up all on a thug
Who wanna - put it in her, withdraw like a Citi card
But now she shake that ass for tips at the titty bar

[Chorus: Talib Kweli (Pharrell)]
Broken glass - everywhere! (IT'S LOUDER!!)
Louder - than a bomb shattered in in the air (IT'S LOUDER!!)
Try to hold back your tears baby! (IT'S LOUDER!!)
Wait a second, what happens here baby? (IT'S LOUDER!!)
Broken glass - everywhere! (IT'S LOUDER!!)
Louder - than a bomb shattered in in the air, yeah
(How many of y'all think you can do what we do?!)
Yeah! Wait a second (One! Two! Three! C'mon!)

[Verse 2: Talib Kweli]
Dreams shattered like broken glass
Press ignore it and your hopes get broken fast
You complain for the life you supposed to have
But when you try to make plans God is known to laugh
Throw a song on the phonograph, and Lucy start wilin
The trick start smiling, watch the loot start flying
The Gucci start piling up, she live designer plush
Start lining up the coke so she could find a rush
Time's up, she's about to turn 33
Her shit started to sag, she got surgery
Now cats are used to drive past her like a Church van
Acting on thirst, 'She Wants To Move' like a N.E.R.D. fan
Bigger house, 10,000 dollar purse fam
She let you in, she wanted rent by the 1st man
She the ring leader in a clique of birds
And they shadowy, like the silhouette behind the curtain

[Chorus]
Broken glass - everywhere! (IT'S LOUDER!!)
Louder - than a bomb shattered in in the air (IT'S LOUDER!!)
Try to hold back your tears baby! (IT'S LOUDER!!)
Wait a second, what happens here baby? (IT'S LOUDER!!)
Broken glass - everywhere! (IT'S LOUDER!!)
Louder - than a bomb shattered in in the air, yeah
(How many of y'all think you can do what we do?!)
Yeah! Wait a second (One! Two! Three! C'mon!)

[Verse 3: Talib Kweli]
She was a small city girl with big city dreams
Niggaz try to figure how to get up in them jeans
Put her in them scenes, get her on the team
Hit her wit the cream 'til they figured out the schemes
Now she all up in the club looking for a new love
Really like Huey Lewis looking for a new drug
Cause coke's getting old, started free basing
Graduated to crack, smack on occasion
Not catching the bus, but back at the station
Back and forth pacing, acting all impatient
Last hundred dollars, she got to 'Get By'
Now gotta make a choice, go home or get high
Mommy and daddy miss her, she left for the fame
Now what's left is the dirt that's thrown on her name
She need a ticket home if it's the right course
Instead she bought a ticket to ride the white horse

[Chorus]
Broken glass - everywhere! (IT'S LOUDER!!)
Louder - than a bomb shattered in in the air (IT'S LOUDER!!)
Try to hold back your tears baby! (IT'S LOUDER!!)
Wait a second, what happens here baby? (IT'S LOUDER!!)
Broken glass - everywhere! (IT'S LOUDER!!)
Louder - than a bomb shattered in in the air, yeah
(How many of y'all think you can do what we do?!) Yeah! Wait a second (One! Two! Three! C'mon!)
Ghetto Afterlife

Talib Kweli feat. Kool G. Rap

[Talib Kweli]
These niggaz ain't thugs, the real thugs is the government
Don't matter if you independent, democrat or republican
Niggaz politickin the street, get into beef
Start blastin, now a new cat is executive chief
With a, passion for heat you get, blast in yo' seat
Die before you crash in yo' Jeep, never passin in your sleep
like an old man, you ain't a fool you got a whole plan
to conquer territories like Europeans who stole land
The future of your whole fam' hang in the balance
You the king, and your block is the palace
Y'all niggaz is the parliament, untouchable, spot un rushedable
Keep your weight wet, call in collect to save a buck or two
Get mad, who the fuck are you? What you gonna do?
Exactly what I thought - NOTHIN, in the sport of frontin
you the undisputed champion, I'm in a class you can't be in
My words is flesh like Jesus, the aquarian
[scratched] "Let's stop right here for an amen and a right on"
"So you think that I'm a fool..."
"Amen, right on..."

[Chorus: T. Kweli and Kool G. Rap]
[T] It's just a chapter of the night, in the ghetto afterlife
Where you just seen or heard about or gonna have to fight
[K] Where they sacrifice the life and niggaz see flashes of light
When you trapped up in the heights but clappers aimin at the wife

[Talib Kweli]
Yeah, dudes gettin money is still thuggin
Chicks gettin money is still ghetto
Still livin the whole thuggish stilleto
Your team let the metal burst before you take an L
you raised in hell, let the dust settle first
Then you ask the question, snatchin the life of the innocent
Shit happens huh, a man's respected by his actions
It's the karma of the street, you try to meet the karma
while the karma sleep, yo it's deep, but the karma can't be beat
You don't know your enemy, so you fightin with yourself
Relate to rap niggaz cause they writin what you felt
You got top shelf connects you gettin seasoned like a veteran
We suck the venom out the snake bite, without the medicine
We benefit from niggaz in tenements, dyin for benjamins
So bad that they know they own coffin measurements
Ghetto eloquence, in the moment of truth, don't be hesistant
or fall victim to the element, word is bond

[DJ Premier]
"So while y'all keep on fakin the funk,
we gonna keep on walkin through the darkness carryin our torches"
[scratched: DJ Premier] "I'ma give-give-give it to-to you straight"
"Straight up and down!"

[Chorus: T. Kweli and Kool G. Rap]
[T] Just another chapter of the night, in the ghetto afterlife
Where you just seen or heard about or gonna have to fight
[K] Where they sacrifice the life and niggaz see flashes of light
When you trapped up in the heights but clappers aimin at the wife

[Kool G. Rap]
Niggaz get caught up in the struggle
End up in court in trouble, sportin a bubble
Ford azure bubble, importer smuggle, forcin a rumble
Hit the blocks with a portion to double
Flip and get tossed in the huddle
Police with one piece short of the puzzle
It's a hustle, peep the street life, they movin muscle
and the G's'll make your knees buckle
Tussle with heat until your feet stand in a pee puddle
Cheese double but all the speedy niggaz bleed puddles
Make the headlines; some try to escape the fed time
Phone taps on direct lines - tec-9's with the red shine
Jake climbin through the bedroom blinds
Tryin to bring you to your deadline, it's slippery when wet signs
Red time, wipe the sweat around your neck time
One shot spill out your red wine, rock shots to deafen your prime
Pieces of hot lead left in your mind
One slug to the left of your spine
Forever late to rest on the shrine

"So you think that I'm a fool.."
GhettoMusik

OutKast

[Outkast]
Whoo (Whoo)
Tie me up, don't tie me down
Cut me up, don't let me down

Find, find a way
Find a way to get out, wit out, hit out
You dig in, dig out, you get out
Ghettomusik, ghettomusik
Find a way to get in, to fit in the ghetto
You get out, wit out a dime
Ghettomusik, ghettomusik
Climbing out this hole
(climbin' out this hole)
With a frown on my face
In the place to be, (in the place to be) and not to be at
The same time
G-h-e-t-t-o-m-u-s-i-k stay down
O-u-t-k-a-s-t (oooh yeah) just know that we won't play round
If feet don't stank like they stank then they
can't swallow dat down
Your battleship is sunk,
I wish grandma could see us
Find a way to get out, wit out, hit out
You dig in, dig out, you get out
Ghettomusik, ghettomusik
Find a way to get in, the fit in the ghetto
You get out, wit out a dime
Ghettomusik, ghettomusik
I just want you to know, how I feel
Feeling good, feeling great
Feeling great, feeling good, how are you?
I just want you to know, how I feel
Feeling good feeling great
Feeling great, feeling good, how are you?

Hot tub add to the bony of tony
As my grandmama ettamay here and she show me
How to be the smooth operator, dominator in the state of Georgia
Hip hops there to destroy ya
Leave a mother fucker open like a foyer
He from the dirt now here come the paranoia
Although you couldn't have jacked the disrespect
The technique, sweat meet, wipe off the sweat
Fight off the shit and flush the waste down
The pipes of my life flow deep into the ground
Why my purpose on the surface of this earth is
Plan it, standards, trust and the purpose
Campaign in vein for the same lame fame, people obtain, you ought to be detained
By the hip hop sheriff, locked up
no possibility of getting out cause the shit you make is killing me and my ears, and my peers
I hear the end is near, no fear
we disappear, then reappear again in a fresh new light
I hope its peaceful and cloudy cause if its not we gotta fight like, fight like

G-h-e-t-t-o-m-u-s-i-k stay down
O-u-t-k-a-s-t just
know that we won't play round
If feet don't stank like they stank then they can't swallow dat down
Your battleship is sunk, I wish grandma could see us
Find a way to get out, wit out, hit out
You dig in, dig out, you get out
Ghettomusick, ghettomusick
Find a way to get in, the fit in the ghetto
You get out, wit out a dime
Ghettomusick, ghettomusick
I just want you to know, how I feel
Feeling good, feeling great
Feeling great,
feeling good, how are you?
I just want you to know, how I feel
Feeling good feeling great
Feeling great, feeling good, how are you?

[BREAK]
Back Down

50 Cent

[Chorus: 50 Cent]
It's easy to see when you look at me
If you look closely, 50 don't BACK DOWN
Everywhere I go both coasts wit toast
Eastside, Westside, I hold that MACK DOWN
Every little nigga you see around me
Hold a gun big enough to fuckin hold SHAQ DOWN
Next time you in the hood and see an ol G
You ask about me, the young boy don't BACK DOWN

Any living thing that cannot co-exist with the kid
Must decease existin, little nigga, now listen
Yo mami, yo papi, that bitch you chasin
Ya little dirty ass kids, I'll fuckin erase them
Your success is not enough, you wanna be hard
Knowin that, you get knocked, you get fucked in the yard
Youza popart sweetheart, you soft in the middle
I eatcha for breakfast, the watch was an exchange for your necklace
and your boss is a bitch, if he could he would
Sell his soul for cheap, trade his life to be Suge
You can buy cars but you can't buy respect in the hood
Maybe I'm so disrespectfu cuz to me you're a mystery
I know niggaz from ya hood, you have no history
Never sold nothin, never popped nothin, nigga stop frontin
Jay put you on, X made you hot
Now you run around like you some big shot
Ha, ha pussy...

[Chorus]
It's easy to see when you look at me
If you look closely, 50 don't BACK DOWN
Everywhere I go both coasts wit toast
Eastside, Westside, I hold that MACK DOWN
Every little nigga you see around me
Hold a gun big enough to fuckin hold SHAQ DOWN
Next time you in the hood and see an ol G
You ask about me, the young boy don't BACK DOWN

"This rap shit is all fucked up now! What are we gonna do now?
How we gonna eat man? 50 back around"
That's Ja's lil punk ass thinkin out loud
Southside, Tah died, that's just how I get down
I'm back in the game shawty, to +Rule+ and conquer
You sing for hoes and sound like the cookie monster
I'm the hardest from New York, my flow is bonkers
All the other hard niggaz, they come from Yonkers
It's been years and you had the same niggaz in the background
You never gonna sell Mitsubushi Tah & Crack Child.
Them niggaz they just SUCK, they no good
I ain't never heard a nigga say "they like them in the hood"
I'm back better than ever, on top of my game
Even them country boys sayin "50 we feelin you mayn"
Now you stay the fuck outta my zone, outta my throne
I'm New York City's own...BAD GUY (BAD GUY)

[Chorus]
It's easy to see when you look at me
If you look closely, 50 don't BACK DOWN
Everywhere I go both coasts wit toast
Eastside, Westside, I hold that MACK DOWN
Every little nigga you see around me
Hold a gun big enough to fuckin hold SHAQ DOWN
Next time you in the hood and see an ol G
You ask about me, the young boy don't BACK DOWN

I ain't tellin anyone you pussy
I ain't tellin anyone you gettin extored
It ain't over.... (G-UNIT)
I've been patently waitin to BLOWW
Ladies and gentlemen, welcome to the "50 Cent Show"
This is my life, my pain, my night, my gun
Now that I'm back, you can't sleep
I'm a nightmare huhhhhh
You hired cops to hold you down cuz you fear for your life
You heard about them guns I done bought, right?
I ain't goin no where, I done told you nigga
I'ma G-Unit motherfuckin soldier nigga (They not gon like you)
I know, I know...ha, ha (G-UNIT)
Many Men (Wish Death)

50 Cent feat. Lloyd Banks

[Lloyd Banks]
Man we gotta go get something to eat man
I'm hungry as a motherfucker

[50 Cent]
Ay yo man, damn what's taking homie so long son?

[Lloyd Banks]
50, calm down, here he come

[9 Shots]

[Banks and 50]
Ahh, ohh, what the fuck!?

[50 Cent]
Ahh! son, pull up! pull up!

[50 Cent]
Many men, wish death upon me
Blood in my eye dawg and I can't see
I'm trying to be what I'm destined to be
And niggas trying to take my life away
I put a hole in a nigga for fucking with me
My back on the wall, now you gon' see
Better watch how you talk, when you talk about me
'Cause I'll come and take your life away

Many men, many, many, many, many men
Wish death upon me
Lord I don't cry no more
Don't look to the sky no more
Have mercy on me

Now these pussy niggas putting money on my head
Go on and get your refund motherfucker, I ain't dead
I'm the diamond in the dirt, that ain't been found
I'm the underground king and I ain't been crowned
When I rhyme, something special happen every time
I'm the greatest, something like Ali in his prime
I walk the block with the bundles
I've been knocked on the humble
Swing the ox when I rumble
Show your ass what my gun do
Got a temper nigga, go'head, lose your head
Turn your back on me, get clapped and lose your legs
I walk around gun on my waist, chip on my shoulder
Till I bust a clip in your face, pussy, this beef ain't over

Many men, many, many, many, many men
Wish death upon me
Lord I don't cry no more
Don't look to the sky no more
Have mercy on me
Have mercy on my soul
Somewhere my heart turned cold
Have mercy on many men
Many, many, many, many men
Wish death upon me

Sunny days wouldn't be special, if it wasn't for rain
Joy wouldn't feel so good, if it wasn't for pain
Death gotta be easy, 'cause life is hard
It'll leave you physically, mentally, and emotionally scarred
This if for my niggas on the block, twisting trees and cigars
For the niggas on lock, doing life behind bars
I don't see only god can judge me, 'cause I see things clear
Quick these crackers will give my black ass a hundred years
I'm like Paulie in Goodfellas, you can call me the Don
Like Malcolm by any means, with my gun in my palm
Slim switched sides on me, let niggas ride on me
I thought we was cool, why you want me to die homie?

Many men, many, many, many, many men
Wish death upon me
Lord I don't cry no more
Don't look to the sky no more
Have mercy on me
Have mercy on my soul
Somewhere my heart turned cold
Have mercy on many men
Many, many, many, many men
Wish death upon me

Every night I talk to god, but he don't say nothing back
I know he protecting me, but I still stay with my gat
In my nightmares, niggas keep pulling techs on me
Psych says some bitch done, put a hex on me
The feds didn't know much, when Pac got shot
I got a kite from the pens that told me, Tuck got knocked
I ain't gonna spell it out for you motherfuckers all the time
Are you illiterate nigga? You can't read between the lines
In the bible it says, what goes around, comes around
Hommo shot me three weeks later he got shot down
Now it's clear that I'm here, for a real reason
'Cause he got hit like I got hit, but he ain't fucking breathing

Many men, many, many, many, many men
Wish death upon me
Lord I don't cry no more
Don't look to the sky no more
Have mercy on me
Have mercy on my soul
Somewhere my heart turned cold
Have mercy on many men
Many, many, many, many men
Wish death upon me
In My Hood

50 Cent

[50 Cent]
Niggas screw they face up at me
On some real shit son they don't want beef
I cock that, aim that shit out the window
I spray - there ain't a shell left in my heat
Ya niggas better lay down, youngin stay down
Get hit wit AK rounds - ya ass ain't gonna make it
You niggas'll get laid out, wit blood and ya brains out
Have ya on the concrete shiverin' and shakin' ...
I'm from Southside motherfucker
Where gats explode
If you feel like ya on fire, boy
Drop and roll
Niggas'll eatcha ass up 'cause they heart turn cold
Now you could be a victim or you can lock and load
Party jumpin, shorty bouncin that ass
I wanna fuck - Gimme a second, Ima holla
I'ma see whats up
I got my razor and my handgun
My pistol in trunk
Carve ya ass up nicely if ya play me like a punk...

[Hook]
In my hooooood
Niggas got love for me
But I don't go nowhere without my strap
In my hooooood
A little dro, a lil hennessey
A nigga juz don't kno how to act
In my hooooood
Niggas is grimey
I stay on point
I hold to my gat
In my hooooood
Niggas might buck at me
So I keep somethin around to buck back
In my hooooood

I dont trust a motherfuckin soul
When the D's come they fold
On my first case they told
Where I'm from it ain't safe to have more than a eighth
Niggas'll come to ya place, put a gun in ya face
Tell ya open the safe, as ya heart start to race
'cause a robbery can turn into a homi-case
Cooperate or doc'll have to operate
B'cause I pop you run a light than pop at jake
Trust me son, niggas'll go hard for they cake
These thirsty niggas are lurkin
You have to catch em and merk em
I'm observant in my hood
These niggas be dummin
Shots go off at the dice game
All you see is them runnin
[ Lyrics found on http://www.metrolyrics.com ]

That make it harder and harder to pump on the block
I'm a hustler, how the fuck am supposed to eat when its hot

[Hook]
In my hoooooood
Niggas got love for me
But I don't go nowhere without my strap
In my hoooooood
A little dro, a lil hennessey
A nigga juz don't kno how to act
In my hoooooood
Niggas is grimey
I stay on point
I hold to my gat
In my hoooooood
Niggas might buck at me
So I keep somethin around to buck back
In my hoooooood

The house party off the hook
Until them shots go off
Well thats what u get for stuntin on my block, show off
Uh, you shit outta luck if niggas catch you slippin
Crack money slow, so you know niggas is trippin
Shorty down there on that Queens track
Takin a whippin
Shit, b!tch get outta pocket -
She needs some discipline
Peep the feins shootin diesel in his arm in the alley
Look at the chrome spinners spinnin on that black Denali
The grimey niggas where I'm from don't wanna see you chipped up
You shine they gone jux you about to shoot ya whip up
It ain't good to do good in my hood
Blaaow ... You know not to do good now

[Hook]
In my hoooooood
Niggas got love for me
But I don't go nowhere without my strap
In my hoooooood
A little dro, a lil hennessey
A nigga juz don't kno how to act
In my hoooooood
Niggas is grimey
I stay on point
I hold to my gat
In my hoooooood
Niggas might buck at me
So I keep somethin around to buck back
In my hoooooood
Keep Ya Head Up

Tupac

Little somethin for my godson Elijah and a little boy named kerim

[Verse 1]
Some say the blacker the berry, the sweeter the juice
I say the darker the flesh then the deeper the roots
I give a holler to my sisters on welfare
Tupac cares, if don't nobody else care
And uhh, I know they like to beat ya down a lot
When you come around the block brothas clown a lot
But please don't cry, dry your eyes, never let up
Forgive but don't forget, girl keep your head up
And when he tells you you ain't nuttin don't believe him
And if he can't learn to love you you should leave him
Cause sista you don't need him
And I ain't tryin to gas ya up, I just call em how I see em
You know it makes me unhappy (what's that)
When brothas make babies, and leave a young mother to be a pappy
And since we all came from a woman
Got our name from a woman and our game from a woman
I wonder why we take from our women
Why we rape our women, do we hate our women?
I think it's time to kill for our women
Time to heal our women, be real to our women
And if we don't we'll have a race of babies
That will hate the ladies, that make the babies
And since a man can't make one
He has no right to tell a woman when and where to create one
So will the real men get up
I know you're fed up ladies, but keep your head up

[Chorus]
Keep ya head up, oooo child things are gonna get easier
ooooo child things are
get brighter [2x]

[Verse 2]
Aiyyo, I remember Marvin Gaye, used to sing ta me
He had me feelin like black was tha thing to be
And suddenly tha ghetto didn't seem so tough
And though we had it rough, we always had enough
I huffed and puffed about my curfew and broke the rules
Ran with the local crew, and had a smoke or two
And I realize momma really paid the price
She nearly gave her life, to raise me right
And all I had ta give her was my pipe dream
Of how I'd rock the mic, and make it to tha bright screen
I'm tryin to make a dollar out of fifteen cents
It's hard to be legit and still pay tha rent
And in the end it seems I'm headin for tha pen
I try and find my friends, but they're blowin in the wind
Last night my buddy lost his whole family
It's gonna take the man in me to conquer this insanity
It seems tha rain'll never let up
I try to keep my head up, and still keep from gettin wet up
You know it's funny when it rains it pours
They got money for wars, but can't feed the poor
Say there ain't no hope for the youth and the truth is
it ain't no hope for tha future
And then they wonder why we crazy
I blame my mother, for turning my brother into a crack baby
We ain't meant to survive, cause it's a setup
And even though you're fed up
Huh, ya got to keep your head up

[Chorus]
Keep ya head up, oooo child things are gonna get easier
ooooo child things are
get brighter [2x]

[Verse 3]
And uhh
To all the ladies havin babies on they own
I know it's kinda rough and you're feelin all alone
Daddy's long gone and he left you by ya lonesome
Thank the Lord for my kids, even if somebody else want em
Cause I think we can make it, in fact, I'm sure
And if you fall, stand tall and comeback for more
Cause ain't nuttin worse than when your son
wants to kno why his daddy don't love him no mo'
You can't complain you was dealt this
hell of a hand without a man, feelin helpless
Because there's too many things for you to deal with
Dying inside, but outside you're looking fearless
While da tears, is rollin down your cheeks
Ya steady hopin things don't all down this week
Cause if it did, you couldn't take it, and don't blame me
I was given this world I didn't make it
And now my son's getten older and older and cold
From havin the world on his shoulders
While the rich kids is drivin Benz
I'm still tryin to hold on to my survivin friends
And it's crazy, it seems it'll never let up, but
please... you got to keep your head up
Memories Live

Talib Kweli & Hi-Tek

[talking]
Yo, you know what we got to do, man, we need to get a whole CD.
Get a collection of all the music and everything we've ever done. [woman singing]
Bringing back sweet memories (3x) Life, living in Flatbush and going to house parties
Red lights, bumping, life is what you make it, then sorry
In my lifetime, ain't done too many things
better than watching your first son put his sentences together
Yo, it kinda make me think of way back when
I was the portrait of the artist as a young man
All them teenage dreams of rapping
Writing rhymes on napkins
Was really visualization
Making this shit actually happen
It's like something come through me
That truly just consume me
Speaking through the voices of the spirits speaking to me
I think back in the day, I absorbed everything like a sponge
Took a plunge into my past to share with my son

Bringing back sweet memories (3x) Like thoughts out the back of my mind
Going back in some time
Like when you used to cut and had to go to the back of the line
Look back and you find
Tracks that make you relax and recline
Now cats rap about packing a nine
When they lacking divine
Inspiration
Running out of topics of conversation
Well I drop it in the pocket because rocking's my occupation
I do it remarkably, spark up a leaf
And possibly you could follow me
Tap into your chi
Utilize your memory
To help you see clearly, then get back to me
Actually, nothing's new under the sun
So when life be stressing me
My remedy is 'bringing back sweet memories'
Like the faces that are woven in the fabric of my consciousness
>From cities where making 21's a big accomplishment
Like when my people understood their prominence
And my past life visions of the continent
Like the first time I saw KRS live, rockin' it
I heard Resurrection by Common Sense
Dominant in my psyche
I chose my direction like Spike Lee
To speak my life through mics, and I never take it lightly
It might be something you did to bring you down when you were high
But that karma's a bitch, you steady asking God why
Like when my parents first split up
Yo, I was illin'
Seems like some years they was together for the sake of the children
And I love them for that
I don't know if they saw that
So I'ma say it, and convey it when the world play it (3x) Bringing back sweet memories
(3x) Like black is beautiful, names from the seventies
Let me tap into your energy
Fields of dreams become my property
When I reach my destiny like a prophecy
Especially when I 'm 'bringing back sweet memories'
I got deep into my mind, see I got a treasury
That float through my head like a sweet melody
What you telling me
Reflection is a collection of memories
Definitely this is how hiphop was meant to be
Eventually, I knew I'd run into Hi-Teknology
It was only a matter of time like centuries
Check the recipe or technique to how it sound so sweet
I freak with word power, my man speak with beats
If I could make it in New York, I figured anywhere I'd make it
Came to Cincinnati linked with Mood, and we did Sacred
Hi-Tek beats became my favorite
Hussle on the Side was the cut
We started to put songs together like 'What!'
Travelled the world, came back to the crib
And hit the motherland
Yeah, this year we put in work and got some other plans
In fact, that's where I'll take the fam
when the Reflection joint is done
By the time you hear this, I'll be basking in African sun
Like Wow!
We made it
We here
Motivation

T.I.

[Intro]
Better get on yo job, tell'em, haters get on yo job, nigga
(Motivation)
Nigga, get on yo job, tell'em, haters get on yo job, nigga
(Motivation)
Haters better get on yo job, tell'em, haters get on yo job, nigga
(It's motivation)
Sucka nigga, get on yo job, if ya, hatin' get on yo job, nigga

[Verse 1]
You can look me in my eyes, see I'm ready for whatever
Anythang don't kill me, make me better
I ain't dead nigga, you can take the fame and the chedda
And the game, any deal, I'm still a go-getter
Take my freedom for the moment but it ain't fo-ever
I got the spirit of a god, heart of a dope dealer
I'm a king, seen hangin' with some cold killas
I ain't never back down or ran from no nigga
I ain't sat down yet, pimp, standin' gorilla
Even if I'ma all alone or standin' with four niggaz
Tell'em jump, pimpin' it don't get no realer
5'9" with the soul of a 6'4" nigga
I separated the fakes, paralized from the waist down
From the real stand up guys of the A-Town
Can't even look me in my eyes, put yo face down
I'm outta jail nigga, whachu gotta say now?

[Chorus]
Motivation
Niggaz fakin' only gonna inspire (Motivation)
All yo hatin' in fuel to my fire (It's motivation)
Niggaz plottin' on the crown soft droppin' (It's motivation)
Hey but I ain't slowin' down and I ain't stoppin'
(Motivation)
Now nigga don't stop my show (Motivation)
You ain't know I don't stop, I go (It's motivation)
Sucka niggaz can't make me suffer
Just make me stronger and make me tougher (It's motivation)
[Verse 2]

To be locked in a box niggaz happy to see
Put anybody on top, any rapper but T, I, P
But back to reality G, O.D. still carryin' me, nigga I run this
Spread yo rumours, kick all yo lil' dumb shit
Tell lies, laugh 'bout the time that I'm gon get
If it make you feel better, picture me over and done with
Punk bitch, come with all the gossip you can come with
Small thang to a giant, I can overcome this
Jail, I don' done this, rap I'm just havin' fun with
I could be a local joker, never have one hit
Nigga, "New Finish" alone'll get me dumb rich
While these rappers sellin' records gettin' pennies
If Grand Hustle sell any, I'ma get plenty
If God with me, who could be against me sucka?
Can't make me suffer, just make me tougher

[Chorus - repeat]

[Repeat Hook]

[Chorus - repeat]
## Appendix K

### Narrative Responses

<table>
<thead>
<tr>
<th>Pt #</th>
<th>Favorite</th>
<th>Reason for Favorite</th>
<th>Least Favorite</th>
<th>Reason for Least Favorite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LSNL</td>
<td>I liked the lyrics and the lyrical content Talib Kweli speak to the soul of the listener. Talib is completely ahead of the time his truths are defined by todays statistics of black and Hispanic males.</td>
<td>LSAL</td>
<td>Because of the incrim. And self-absorbed personality he has became famous. His fame has been a downward spiral of black and black crime and violence.</td>
</tr>
<tr>
<td>2</td>
<td>LSAL</td>
<td>The beat had took me away.</td>
<td>HSNL</td>
<td>It just didn’t motivate me.</td>
</tr>
<tr>
<td>3</td>
<td>HSAL</td>
<td>I like the way he expressed himself on the track. Also how the beat was, and also their lyrics.</td>
<td>HSNL</td>
<td>I didn’t like the mood of the whole entire track. The beat wasn’t good, and it was too fast.</td>
</tr>
<tr>
<td>4</td>
<td>HSAL</td>
<td>Because it talk about real ass shit and that where my mind is.</td>
<td>LSNL</td>
<td>I hate this one because it didn’t make no sense.</td>
</tr>
<tr>
<td>5</td>
<td>LSNL</td>
<td>He kept a good vocabulary selection in his speech. He had a descent central on main idea in which the artist tried to express.</td>
<td>HSNL, LSAL</td>
<td>They had an excessive amount of profanity. It also did no remain on one central subject.</td>
</tr>
<tr>
<td>6</td>
<td>LSAL</td>
<td>I liked what he said and how the beat was.</td>
<td>HSNL</td>
<td>I didn’t like the beat or how they were rapping. They were rapping too fast.</td>
</tr>
<tr>
<td>7</td>
<td>HSAL</td>
<td>That he said thing that I go through and have been through.</td>
<td>HSNL</td>
<td>I did not like the beat and the way he was rapping.</td>
</tr>
<tr>
<td>8</td>
<td>LSNL</td>
<td>The fact that the lyrical content appeals to higher level of thinking.</td>
<td>HSNL</td>
<td>It was dumb. There was no essence. It was just noise.</td>
</tr>
<tr>
<td>9</td>
<td>LSAL</td>
<td>I like this because he is keeping it real and letting you know that in the hood you gotta stay on point because you never know when you could get robbed.</td>
<td>HSNL</td>
<td>What I like is that he kept it real too he kept it in the streets. What I didn’t like was the beat on it.</td>
</tr>
<tr>
<td>10</td>
<td>LSNL</td>
<td>The song that you played was like real calm and mellow. It was real different not too gangsta.</td>
<td>HSNL</td>
<td>Number three song was outkast that’s hype music which is party music.</td>
</tr>
<tr>
<td></td>
<td>LSNL</td>
<td>I thought it was going to be some lame music and then it started out the lyrics on something I could relate to.</td>
<td>LSAL</td>
<td>I don’t vibe to 50cent like that.</td>
</tr>
<tr>
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<td>-------------------------------------------------------------------------------------------------</td>
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<td>----------------------------------</td>
</tr>
<tr>
<td>12</td>
<td>The story that’s being told and the way it’s being told and the beat that’s being played.</td>
<td>They’re rapping to fast and I can’t understand. Or another reason is that the beat are weak.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>LSAL</td>
<td>Because I know the rapper.</td>
<td>LSNL</td>
<td>I’ve never heard it.</td>
</tr>
<tr>
<td>14</td>
<td>50 cent cause I like his style.</td>
<td>I don’t know</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>HSNL</td>
<td>Cause it’s rap music that’s what I listen to.</td>
<td>LSNL</td>
<td>The first one it was too old.</td>
</tr>
<tr>
<td>16</td>
<td>LSNL</td>
<td>This rap was less violent, and had more of a meaning to which made it more hip-hop.</td>
<td>HSAL</td>
<td>Too much of the same violent thing’s I hear everyday.</td>
</tr>
<tr>
<td>17</td>
<td>HSAL</td>
<td>The beat</td>
<td>LSAL</td>
<td>The rapper</td>
</tr>
<tr>
<td>18</td>
<td>LSAL</td>
<td>Its realistic with what goes on in everyday environment and could relate from it</td>
<td>HSNL</td>
<td>Because its talks about nonsense and seems to me to be a lot of noise, unnecessary noise</td>
</tr>
<tr>
<td>19</td>
<td>LSNL</td>
<td>Everything he said I could relate to. All of it make sense. I’m from NY and I just love the vibe of the song.</td>
<td>HSNL</td>
<td>I had like a rock beat to it and I hate rock music.</td>
</tr>
<tr>
<td>20</td>
<td>LSAL</td>
<td>I like the way he wrote the themes and the things he say.</td>
<td>HSNL</td>
<td>I did not like that song because the things he was saying that’s not my vibe.</td>
</tr>
<tr>
<td>21</td>
<td>LSNL</td>
<td>It is real life experience talk. Knows how to relate the words he uses. Cams your mind with its beat.</td>
<td>HSNL</td>
<td>Too much noise and talks nothing real was a disappointment</td>
</tr>
<tr>
<td>22</td>
<td>LSNL</td>
<td>It had a nice tone and I like what the rapper said. I had some slow jam to it to.</td>
<td>HSAL</td>
<td>I did not like the talk of how another gang does things.</td>
</tr>
<tr>
<td>23</td>
<td>LSAL</td>
<td>What the song was about the rhythm and the flow to the song.</td>
<td>LSNL</td>
<td>I couldn’t really relate to it.</td>
</tr>
<tr>
<td>24</td>
<td>LSAL</td>
<td>The beat was good.</td>
<td>HSNL</td>
<td>I didn’t like how it changed beats.</td>
</tr>
<tr>
<td>Page</td>
<td>LSAL</td>
<td>HSAL</td>
<td></td>
<td></td>
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<tr>
<td>25</td>
<td>LSNL</td>
<td>HSNL</td>
<td></td>
<td></td>
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<tr>
<td>26</td>
<td>LSNL</td>
<td>HSNL</td>
<td></td>
<td></td>
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<tr>
<td>27</td>
<td>LSNL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>HSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>HSAL</td>
<td>LSNL</td>
<td></td>
<td></td>
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<tr>
<td>30</td>
<td>HSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>HSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>LSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>HSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
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<tr>
<td>34</td>
<td>HSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
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<tr>
<td>35</td>
<td>HSNL</td>
<td>LSNL</td>
<td></td>
<td></td>
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<tr>
<td>36</td>
<td>LSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
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<tr>
<td>37</td>
<td>HSAL</td>
<td>LSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>HSAL</td>
<td>LSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>LSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>LSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>HSNL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>LSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>LSAL</td>
<td>HSNL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25. I like the beat and also it more like old school rap. It tells more of a story than just rhyming about things. I didn’t like the tone of the artist voice the beat was horrible and also couldn’t understand what they were saying.

26. What I liked was the beat, the lyrics he used and how true he was speaking. What I liked was the beat but what I disliked was that you can’t really understand what they were saying.

27. It’s kind of like more calm down the others. It just wasn’t my type.

28. The words. The beat.

29. I like the lyrics the most. the lyrics stood out the most in the song. I like the message in the song. It was cool and it was very positive.

30. The beat and the lyrics. Is cuts into different beats and the lyrics are irrelevant.

31. It was ghetto lyrics he use. Because of the lyrics.

32. He was being real in the whole song. It’s just not my style the beat is too fast.

33. The artist, and the lyrics. I didn’t like the song, beat, or words.

34. The is my favorite rap. He is not hot but straight

35. Because it relate to me some of it. I didn’t like because I cannot relate.

36. Everything. Everything

37. I it the you like cirg it the roon. I bid like.

38. It relate to me. It didn’t relate to me.

39. I like the things he was talking about the guns and if someone try him what his gonna do. Because it wasn’t really talking about not real and serious it was more like a classic song.

40. I like the first song because I like rap and I had heard that song plenty of times. I didn’t like the second song because I ain’t like how the song changed up from rap to singing.

41. It was exciting and it was ritste to the song. The whole song, it was cony

42. He be rap hard the true. Ok but so (50?) betters.
<table>
<thead>
<tr>
<th>ID</th>
<th>Participant</th>
<th>Comment</th>
<th>Participant</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>LSNL</td>
<td>It had meaning to is and it represent a point in life or his life and it was a great selection not provoking or vorgar.</td>
<td>LSAL</td>
<td>I just don’t like 50 cent only a couple of his songs and he is fake to me. He lies a lot in his music even the most people do. I just don’t like that nigga!!</td>
</tr>
<tr>
<td>45</td>
<td>LSAL</td>
<td>It had a good flow.</td>
<td>LSNL</td>
<td>It was a slow song.</td>
</tr>
<tr>
<td>46</td>
<td>HSAL</td>
<td>The beat and lyrics.</td>
<td>HSNL</td>
<td>The whole vibe to it.</td>
</tr>
<tr>
<td>47</td>
<td>HSNL</td>
<td>It’s just relaxing just that rap song number #1</td>
<td>N/A</td>
<td>I just hate his music.</td>
</tr>
<tr>
<td>48</td>
<td>LSAL</td>
<td>Because I knew the song I was listening to.</td>
<td>LSNL</td>
<td>Because the way the music and the artist still.</td>
</tr>
<tr>
<td>49</td>
<td>HSNL</td>
<td>It was ok</td>
<td>LSAL</td>
<td>It was boring.</td>
</tr>
<tr>
<td>50</td>
<td>LSAL</td>
<td>Cause it was real but to tell you the truth I really don’t like fifty cent but he was righding on that funk</td>
<td>LSNL</td>
<td>The rest of them</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To tell you the truth if it don’t have a tight beat I really don’t like it. That’s why I like the fourth one.</td>
<td>LSAL</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>(This participant did not respond.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>HSAL</td>
<td>It’s real, it’s not some fairytale rap.</td>
<td>LSAL</td>
<td>It’s fake nothing about it is true.</td>
</tr>
<tr>
<td>53</td>
<td>LSAL</td>
<td>I like the way he rap</td>
<td>HSNL</td>
<td>The rapper did not know how rap.</td>
</tr>
<tr>
<td>54</td>
<td>HSAL</td>
<td>Everything</td>
<td>LSNL</td>
<td>Everything</td>
</tr>
<tr>
<td>55</td>
<td>LSAL</td>
<td>Cause it tell about life a lot more things.</td>
<td>HSNL</td>
<td>Cause it too fast I hate cares it too fast.</td>
</tr>
</tbody>
</table>