VIOLENCE IN MUSIC VIDEOS:
EXAMINING TEMPORARY PERSONALITY EFFECTS
ON THE DARK TRIAD

By

Jonathan W. Nauser

A Thesis
presented in partial fulfillment
of the requirements for the degree of
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ABSTRACT
by
Jonathan W. Nauser

Research concerning the effects of music has historically focused on the effects of mood, physiology, and other aspects of human cognition but little research has examined the temporary personality effects from watching violent music videos. The purpose of the current study was to examine the effects of viewing violence-based music videos on several personality traits. Data were gathered from 201 undergraduate students at the University of Central Missouri. Participants were placed into one of three groups varying in violence present in the music video, and completed a self-report packet of questionnaires. Analysis showed that responses from the varying conditions differed in the Dark Triad while indicating that the groups did not differ on the word search paradigm and empathy measure. Further investigation is suggested to better understand the relationship between the Dark Triad personality factors and empathy. It is also suggested that music videos continue to be in regard to the Dark Triad traits.
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February 2015

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CHAPTER 1
NATURE AND SCOPE OF
THE STUDY

Rationale

Many past and current violent events have been blamed and/or attributed to effects of violent media. A specific event in which this occurred was the aftermath of the Columbine massacre in which a popular heavy metal musician, Marilyn Manson, was painted as the source of influence behind this tragic act (France, 2001).

Although much research has been done examining the effects of violent music and music videos, none of it has yet examined the temporary effects of such media on a personality construct connected to violent behavior. It is the purpose of the present research to examine whether watching music videos, which vary in the degree of violence suggested can temporarily influence personality traits that are related to violence. The social threat of such tragedies is still very much alive in today’s society, but currently available research is still not able to fully explain the causes behind such acts. The current stimuli of violent music videos have been explored as a past source, but never in the scope of the Dark Triad (e.g. psychopathy, narcissism, and Machiavellianism). It is the intention of this researcher to examine whether music videos of violence is as potent and effective as past research suggests and to be able to add to the research relevant to the growing problem we have of violent acts such as Columbine.

The Dark Triad is defined as being comprised of three personality traits, specifically narcissism, psychopathy, and Machiavellianism (Paulhus & Williams, 2002). Each trait is further described by researchers (Christie & Geiss, 1970; Karpman, 1948; Hare, 1985; Ellis, 1898; Waelder, 1925; Raskin & Hall, 1979) who have provided definitions of these traits. Dark Triad traits have been found to be related to genetics (Vernon, Villani, Vickers, & Harris, 2008),
job performance (O’Boyle, Jr. Forsyth, Banks, & McDaniel, 2012), self-control (Jonason & Tost, 2010), impulsivity (Jones & Paulhus, 2011), and social influence (Jonason & Webster, 2012). These relationships have been found to all be of negative nature. Although substantial research has been done on the effects of media on violent behavior, the effects of music video depictions of violence specifically on the Dark Triad traits have not been researched as much as other areas.

Empathy is another important variable that will be considered in the proposed research because a relation has been shown between measures of this trait and the previously mentioned Dark Triad traits (Wai & Tiliopoulos, 2012; Ali et al., 2009; Austin et al., 2007; Watson & Morris, 1991; Baskin-Sommers et al., 2014). A general summarization of the past research conducted between these two measures is that those who possess higher qualities of the Dark Triad personalities also possess lower empathic tendencies. Each trait has been examined separately in comparison with empathy as well as combined with each of the other traits.

The focus of the current research on the effects music videos builds on previous research that has investigated specific visual and auditory stimuli and the Dark Triad. First, music itself has been found to relate to empathy. Mood has been shown to be altered by music in many fashions (Pignatiello, Camp, & Rasar, 1986; McKinney, Antoni, Kumar, Tims, & McCabe, 1997; Thomspn, Schellenberg, & Husain, 2001). Empathy has also been found to be affected by music (Clark & Giacomantonio, 2013; Wöllner, 2012; Hoeckner, Wyatt, Decety, & Nusbaum, 2011; Miu, & Baltes, 2012; Vuoskoski, Thompson, McIlwain, & Eerola, 2012). The results of this past research support the hypothesis for the current study that empathy should vary according to music displayed and heard. The previous literature provides a strong argument that a relationship between music and empathy exists, and that a relationship will be evident in the proposed research.
Although very little research has been conducted as of yet examining effects on the Dark Triad in music videos, some researchers have argued that traits of the Dark Triad are connected to the viewing of negative content in music videos (Linz et al., 1988; Funk et al., 2004; Bushman & Huesmann, 2006; Fanti et al., 2009; Krahé et al., 2011). Sexual objectification and general violence has been shown to be affected in adults after the viewing of violent content (Linz et al., 1988) like that depicted in music videos. Children have also been shown to be affected by visual media in regards to general aggression (Bushman & Huesmann, 2006). Movies with violent content have been found to affect sympathy toward the victim (Fanti et al., 2009). Further, media violence seen on the news can affect empathy and attitudes towards violence (Funk et al., 2004). Habitual media violence exposure was found to have varied effects on aggressive cognitions and behavior (Krahé et al., 2011). Finally, in regard to visual media having an effect on personality, males’ visual attention to male images in visual media was examined to demonstrate an effect on male body dissatisfaction (Nikkenet et al., 2012).

The previous research discussed suggests psychological effects of viewing visual media, especially violent media content (Linz et al., 1988; Funk et al., 2004; Bushman & Huesmann, 2006; Fanti et al., 2009; Krahé et al., 2011). However, not all media content has a negative effect upon its viewers (Nikkenet et al., 2012), which raises the need for further research. Past research has also indicated that priming effects do take place when viewing music videos. Music videos have primed for sex schemas (Hansen & Hansen, 1988; Hansen, 1989; Hansen & Krygowski, 1994) and suicidal thoughts (Rustad et al., 2003) in the past which argues that music videos are effective with priming.
Hypotheses

The current research focuses on whether there are temporary personality effects produced by the viewing of violent content in music videos. This is a logical question to ask given previous research. Four hypotheses have been constructed: 1) individuals exposed to person-based violence in music video portrayals will show more negative affect on a word search as a measure of affect than those exposed to object-based violence or non-violent music videos; 2) individuals exposed to person-based violence and/or hostile music video portrayals will score lower on a measure of empathy; 3) individuals exposed to person-based violence and/or hostile music video portrayals will score higher on the Dark Triad measure, when compared to those exposed to object-based and/or non-violent music videos of the same genre; and 4) individuals who score higher on the Dark Triad measure will score lower on the empathy measure and vice versa showing a negative correlation. The research design, explained in further detail in Chapter 3, involved manipulating the level of violence in music videos to determine its effect on empathy levels and the Dark Triad.
CHAPTER 2
REVIEW OF THE LITERATURE

The intent of the present research is to determine whether there are temporary effects of watching music videos on an individual’s personality specifically on each of the facets of the Dark Triad. Past research conducted with the use of the personality measure of the Dark Triad will be first be explored, which will include defining all three personality traits (narcissism, psychopathy, Machiavellianism). We will explore variables related to the Dark Triad and how this measure of personality is related to empathy. Research on music will then be explored, particularly effects individuals’ mood, how and if it relates to empathy, and influences of visual media of various types including music videos. Finally, we will examine a possible connection between the Dark Triad traits and music videos.

The Dark Triad

The Dark Triad is described as three socially aversive personality traits that have gathered substantial attention within the psychological community. The Dark Triad is composed of Machiavellianism, psychopathy, and narcissism. Past research (e.g. Paulhus & Williams, 2002) of these constructs showed that the personality constructs “entail a socially malevolent character with behavior tendencies toward self-promotion, emotional coldness, duplicity, and aggressiveness” (Paulhus & Williams, 2002, p. 557). The Dark Triad construct was created as a non-clinical measure which allows for the evaluation of empirical associations among normal and non-clinical populations. In order to understand the Dark Triad, the individual constructs must each be operationally defined.

The first construct of the Dark Triad is Machiavellianism. Christie and Geiss (1970) defined Machiavellianism as a manipulative personality. This research found that respondents who agreed to manipulation fashioned statements (e.g., I lie to get my way; I manipulate others
in my favor) were more likely to behave in a cold and manipulative fashion in laboratory and real world studies. For the current research, Machiavellianism will be defined as a manipulative personality.

The second personality construct of the Dark Triad is psychopathy. Karpman (1948) originally defined psychopathy with two distinctions. The primary form of psychopathy is characterized by a personality organization having an absence of any redeeming social reactions such as conscience, guilt, and generous emotions. Under the heading of secondary psychopathy, cases such as psychoses and neuroses that have a strong antisocial and delinquent aspect, fall under the lesser serious type. In addition to this, purely egotistic, uninhibited instinctive trends are predominant. For the current research the definition of psychopathy will be derived from Hare (1985) who defined psychopathy as having central character elements including high impulsivity and thrill-seeking along with low empathy and anxiety.

The third and final construct that composes the Dark Triad is narcissism. Narcissism was originally defined by Ellis (1898) who used the term Narcissus-like to refer to an individual’s tendency for the sexual emotions to be lost and to become almost entirely absorbed in self-admiration. Other research (e.g. Waelder, 1925) characterized narcissistic individuals as displaying condescending superiority and intense preoccupation with their self-respect, as well as a lack of empathy and concern for others. For the current research, the definition for narcissism is derived from Raskin and Hall (1979) who defined narcissism as a personality including grandiosity, entitlement, dominance, and superiority.

The Dark Triad measure has been found to be related to factors including genetics (Vernon, Villani, Vickers, & Harris, 2008), self-control (Jonason & Tost, 2010), impulsivity (Jones & Paulhus, 2011), and social influence (Jonason & Webster, 2012). Vernon et al. (2008)
investigated genetic factors within the Dark Triad in two ways. The authors aimed to add to research on genetic impacts on the Dark Triad due to previous literature focusing on genetic factors in psychopathy. Vernon et al. (2008) sought to measure correlations between twins on the Dark Triad variables. Twenty pairs of twins were mailed four questionnaires that were to be completed at their respective homes. The data showed that the Dark Triad factors (narcissism, psychopathy, and Machiavellianism) significantly correlated with one another. The findings also measured correlations of scores among dizygotic and monozygotic twins and the Dark Triad personality constructs. Through Vernon et al.’s (2008) use of univariate behavioral genetic model-fitting analyses, psychopathy and narcissism were found to have a moderate to high heritability rate among participating twins. The third personality trait of the Dark Triad measure, Machiavellianism, was found to be only moderately heritable while showing a more pronounced influence from the shared environment (Vernon et al., 2008). This suggests that Machiavellianism is learned from peers and/or environment more than being influenced by genetic factors. From these results, Vernon et al. (2008) argued that the observed correlations among factors of the Dark Triad were largely attributable to similar genetics. The Dark Triad has also been shown to have correlated with other personality traits such as impulsivity (Jones & Paulhus, 2011), self-control (Jonason et al., 2010), and social influence (Jonason & Webster, 2012).

Jones and Paulhus (2011) investigated the association between the Dark Triad variables and the two types of impulsivity: functional and dysfunctional. Functional impulsivity predicts quick decision making and is useful in social situations where quick responses are required (Jones & Paulhus, 2011). Dysfunctional impulsivity is defined as erratic disorderliness and has been shown to correlate with inaccurate decision making and distraction (Jones & Paulhus,
2011). Jones and Paulhus (2011) gave participants four separate questionnaires to complete. The first three questionnaires measured the individual personality traits of the Dark Triad, and the fourth questionnaire measured the degree of functional and dysfunctional impulsivity in the participants. Jones and Paulhus (2011) reported that psychopathy and narcissism were associated with overall impulsivity while psychopathy was independently associated with dysfunctional impulsivity and narcissism was independently associated with functional impulsivity. Machiavellianism had no association among either of the types of impulsivity. These findings support the usefulness of narcissism in quick decision making and strengthen previous literature (e.g., Hare, 1985) stating that individuals high in psychopathy lack inhibition for antisocial impulses. Likewise, the findings support that individuals scoring high in Machiavellianism have the potential to refrain from counterproductive behaviors (e.g., leadership derailment, abusive supervision, employee theft), strengthening previously listed research (O’Boyle Jr. et al., 2012). The findings of Jones and Paulhus (2011) further strengthen the argument that the Dark Triad relates to individuals’ lives, specifically in the domain of impulsivity, which could later transition to environments that require decision-making, focus, and productiveness (e.g. school, the workplace). Because impulsivity correlates with the Dark Triad traits, self-control should also be related to these traits, based on similar reasoning.

Jonason and Tost (2010) investigated the manifestation of Dark Triad personality traits in life strategies requiring self-control. They suggested that individuals who possess Dark Triad personality traits take part in a fast life strategy and lack higher levels of self-control. In the first study, six questionnaires were given to participants for completion: Three assessing the Dark Triad traits and three assessing for self-control in general terms, consideration of future consequences, and in reflection of Adult Attention Deficit Hyperactivity Disorder (ADHD).
Psychopathy was negatively correlated with all three of the self-control measures, while neither narcissism nor Machiavellianism were found to be correlated with any of the measures of self-control. The results of the second study, which added a measure of the Dark Triad called the “Dirty Dozen” were as follows: Machiavellianism negatively correlated with all three measures of self-control, psychopathy negatively correlated with self-control and future consequences, and narcissism was uncorrelated with any of the measures of self-control. The concise measure of the Dark Triad as a whole was found to be “correlated with self-control and attention deficit, but not significantly with future consequences” (Jonason and Tost, 2010, p. 613). The results suggest that individuals who possess the Dark Triad personality traits take part in a fast life strategy revealing a lack of self-control, a lack of account for future consequences, and a potential for Adult ADHD.

Jonason and Webster (2012) examined how individuals characterized by the Dark Triad traits enact a life history strategy on tactical levels. This research by Jonason and Webster attempted to utilize the Dark Triad to answer the question of how cheaters avoid detection. Jonason and Webster (2012) assessed three different facets of the Dark Triad and social influence: the basic correlations between the Dark Triad traits and their respected tactics of influence (Jonason and Webster, 2012), the tactics individuals use when trying to influence others (e.g. family member, opposite-sex friend, same-sex friend, and a stranger), and the tactics used when trying to influence others to complete a specific goal (e.g. coalition formation, self-protection, status-seeking, and mate-acquisition/retention). The results support the idea that individuals who possess one Dark Triad trait specifically over the other two will employ specific social influence tactics. Individuals who score high in psychopathy employ the social influencing tactic of seduction to get opposite-sex friends to help them find mates, and the social
influence of charm to get same-sex friends to help them find mates. Individuals possessing higher levels of Machiavellianism use charm to build coalitions among same-sex friends, and individuals high in narcissism use reason to build social status among same-sex friends (Jonason and Webster, 2012). These findings suggest that detecting cheaters in relationships with Dark Triad personality traits is difficult because of the level of social influence being used. Individuals who are influenced by others with Dark Triad traits have reduced abilities for detecting habits such as cheating or lying. The results are relevant in everyday society, such as school settings which can teach children who possess Dark Triad personalities an increasing awareness of social influencing tactics.

Research on the Dark Triad has expanded across several areas of psychology such as bullying behavior (Baughman, Dearing, Giammarco, & Vernon, 2012), moral development in genetics (Campbell, Schermer, Villani, Nguyen, & Vickers, 2008), prejudice (Hodson, Hogg, & MacInnis, 2009), and similarities in social consequences (Rauthmann, 2011). Baughman et al. (2012) examined which Dark Triad traits are correlated with bullying behavior. They found that “psychopathy was the most strongly related to bullying followed by Machiavellianism, and narcissism” (Baughman et al., 2012, pg. 574). The predictions of the authors were not completely supported by the findings except that individuals high in narcissism participated more frequently in indirect bullying than in physical direct bullying. This research supports the argument that those with different Dark Triad traits analyze the costs and benefits differently when engaging in aggressive behavior. Individuals who score higher in certain traits (e.g. narcissism, psychopathy, Machiavellianism) may engage in aggression differently. Campbell et al. (2008) examined the moral development of individuals who scored high on Paulhus and Williams’ (2002) Dark Triad measure using behavioral genetic methodology. The
study investigated the extent to which individual differences in moral development can be attributed to genetic and environmental factors. Using a participant pool of monozygotic and dizygotic twin pairs, Campbell and colleagues asked participants to complete a moral reasoning measure along with three measures corresponding to one of the Dark Triad traits. Participants were instructed to not discuss their responses with their twin while participating in the study. The correlational analyses revealed that high scores in psychopathy and Machiavellianism correlated positively with low moral development. Individual differences in lower levels of moral development were attributable to genetic and nonshared environmental factors, but individual differences in the highest levels of moral development showed no genetic basis and were entirely attributable to shared and nonshared environmental factors. The results suggest that correlations between the traits measured and moral development measures have no genetic basis, but could be better attributed to environmental factors (Campbell et al., 2008), such as relationships with others, hobbies and interests, and overall environment.

Prejudices against different religions and races can be related to an individual’s environment. Hodson et al. (2009) explained intergroup threat perceptions and prejudice using the Dark Triad personality traits in conjunction with normal-range personality variables. The study showed that agreeableness correlated negatively with Dark Triad variables, whereas openness had no correlation with the three traits; however in a regression analyses Hodson et al. (2009) made the point that openness can predict prejudice independently from dark personalities. The data showed that the Dark Triad traits of psychopathy, Machiavellianism, and narcissism correlated with immigrant threat perceptions and predicted increased prejudice just as found for the trait of openness (Hodson et al., 2009). However, the Dark Triad variables and openness
predicted prejudice independently, which suggests that the Dark Triad construct can serve as an additional predictor of prejudice in addition to openness and agreeableness.

Rauthmann (2011) investigated social consequences for possessing Dark Triad traits. Rauthmann (2011) examined two distinct factors of dark personality traits: first, how individuals with dark personalities perceive themselves and how they interact with others, and second, how other people perceive individuals with dark personality traits and how they interact with others. Rauthmann (2011) found that individuals who score high in Dark Triad traits differ in self-view and are perceived differently by their peers in private and in interpersonal interaction. There was no uniformity as to how narcissism, psychopathy, and Machiavellianism are perceived by others and how they are viewed by one’s self, which suggests that the Dark Triad traits should be distinguished from how they are perceived and how they are viewed by one’s self when investigating processes of initial, short-term social interactions (Rauthmann, 2011).

Research linking empathy to the Dark Triad as a whole construct has been limited (Jonason, P. K., Lyons, M., Bethell, E. J., & Ross, R., 2013; Wai & Tiliopoulos, 2012), but there has been research linking empathy with one of the Dark Triad traits (Watson & Morris, 1991; Baskin-Sommers et al., 2014; Ali et al., 2009; Austin et al., 2007). Jonason et al. (2013) examined different empathy levels in males and females and the link between empathy and the Dark Triad measure. Females and males differed on measures relating to empathy and the Dark Triad. Empathy was found to have facilitated different aspects of the Dark Triad in men (Jonason et al., 2013). Male participants were found to have lower empathy levels and score higher on the Dark Triad compared with female participants who were found to score higher in narcissism. The authors’ predictions of low empathy and high psychopathy levels in males and low empathy and high narcissism in females were confirmed. The results were interpreted as
indicating that “while these personality traits are taken to be more characteristically male than female, when they are present in women, they function uniquely…” (Jonason et al., 2013, p. 575). This research suggests that males and females express their lack of empathy through different personality traits listed within the Dark Triad.

Another question that stems from this research is whether the Dark Triad is linked with low levels across all types of empathy. Wai and Tiliopoulos (2012) attempted to determine whether the Dark Triad is associated with deficits in either cognitive or affective empathy through self-reports and facial expression tasks completed by participants. The authors defined affective empathy as the generation of an appropriate emotional reaction in response to others’ emotions and cognitive empathy as the ability to discern emotional states of others without undergoing emotional contagion (Wai & Tiliopoulos, 2012). Participants who scored highly on Dark Triad traits exhibited significant deficits within affective empathy, and displayed a weak relationship with cognitive empathy. These findings indicated that individuals who possess the Dark Triad personality traits display an empathic profile which allows them to read other people’s emotions and use this information to construct strategies for manipulation of others to fulfill their wants and needs while also allowing them to overlook the harm and damage done upon those who have been manipulated. This study adds a building block to the research behind linking empathy with the Dark Triad. The findings suggest that global empathy is too broad of a scale to be measured within a specific population, such as among individuals with “dark” personalities. Research has also been conducted linking dark triad traits individually with empathy.

Ali et al. (2009) investigated the relationship between Machiavellianism, psychopathy (primary and secondary), trait emotional intelligence, and empathy. The empathic deficiencies
were measured by the expression of inappropriate affect in response to images displaying negative or positive affective content. The researchers classified psychopathy into two types: primary, suggesting cruelty and lack of affect; and secondary, suggesting impulsivity, neuroticism, and aggression. Machiavellianism and primary psychopathy were found to be positively associated with experiencing positive affect when observing sad images. This display of positive affect suggested that participants who identified with these personality traits did not experience negative emotion or distress when observing sad images, but responded on the opposite end of the spectrum with positive emotions. Participants who scored high in Machiavellianism were shown to have negative affect in response to neutral images. These findings are consistent with the previous literature as those who scored high in Machiavellianism and psychopathy showed empathic deficits and low trait emotional intelligence.

Austin et al. (2007) examined the association between Machiavellianism and emotional intelligence using self-report data, performance, and personality measures. The authors hypothesized that “Machiavellianism would correlate negatively with overall emotional intelligence scores and with agreeableness and conscientiousness” (Austin et al., 2007, p. 180). The second study within the investigation was to further develop the idea of emotional manipulation by constructing a scale to specifically assess for this trait within an individual’s personality. The results confirmed that Machiavellianism is negatively correlated with emotional intelligence on self-report and performance measures (Austin et al., 2007). The results suggest that individuals with high Machiavellianism experience more difficulty in identifying emotions in themselves compared to identifying emotions in others. Machiavellians find the task of manipulating others’ emotions easier than identifying their own (Austin et al., 2007).
Psychopathy and Machiavellianism have been found to correlate with empathic deficiencies, which suggest that narcissism should be further investigated.

Watson and Morris (1991) sought to clarify the relationship between narcissism and empathy. Participants were asked to complete a series of empathy and social desirability scales, along with the clinical measure of narcissism. Individuals who responded with high levels of empathy showed low levels of narcissism. Baskin-Sommers et al. (2014) reviewed three case studies in order to highlight the variability of empathy within a population clinically diagnosed with narcissistic personality disorder (NPD). The authors proposed that not only does narcissism have a negative relationship with empathy, but the type of empathy that is lacking within narcissists is complex.

**Music in Psychology**

In the proposed research we will examine the impact of music on Dark Triad traits. Research has indicated that music can be used to alter mood in various fashions (Pignatiello, Camp, & Rasar, 1986; McKinney, Antoni, Kumar, Tims, & McCabe, 1997). Pignatiello et al. (1986) investigated an alternative form of mood induction using music, other than the previously used Velten technique. The Velten technique (Velten, 1968) is described as a method of mood induction where participants received mood instructions or demand instructions while reading. After receiving such instructions listing a demand or mood, participants were told to try to feel the mood. The Velten Technique (Velten, 1969) has come under heavy criticism stating that it should not be used in experimental situations due to the demand characteristics of the mood induction technique. Pignatiello et al. instructed participants to fill out a depression measure before and after listening to a specific musical tape. The first set of results suggested that this mood induction technique was successful at inducing mood differences between groups. In the
second experiment, the results were replicated to further argue the effectiveness of this alternate mood induction method. The musical mood induction technique introduced was shown to have a successful mood induction and generalizable to both sexes. Due to the results from this study, it is argued that music can successfully alter mood (Pignatiello et al., 1986). Music can be used in an experimental manner to induce mood, as well as in a therapeutic setting to alter mood.

McKinney et al. (1997) investigated the effectiveness of a specific therapy model using music, the Guided Imagery and Music (GIM) approach. GIM involves listening to a musical piece with the intent of unfolding inner experiences. Participants were split into two groups, one group participating in the GIM therapy model while the other group was on a wait list. Those in the GIM group were given six GIM sessions over a course of two weeks ranging from an hour and a half to two hours per session. Mood measures were then administered to participants in both groups, and blood cortisol levels were tested throughout the study. After the GIM sessions had been concluded there was a significant decrease in depressed mood, fatigue, and total mood disturbance. Along with these significant mood changes, cortisol levels in participants’ blood samples were significantly decreased following the GIM therapy. McKinney et al. (1997) argued that music is successful at altering mood as well as minimizing cortisol levels and depression when the proper technique and time period for successful effect occur. It is important to note that the two previous studies employed music in different fashions in order to demonstrate that music itself can affect mood in several different ways.

Husain, Thompson, & Schellenberg (2002) conducted similar research on the effects of music. A total of four groups were examined: one listening to a fast tempo of music, one listening to a slow tempo of music, one listening to a major mode of music, and finally one listening to a minor mode of music. The participants were tested on a mood and arousal scale
before and after the music administration to detect a difference in levels along with a spatial task. Results supported that performance on the spatial task was superior for participants who listened to a faster tempo piece of music rather than a slower piece. Performance was also greater when the piece of music was in a major rather than a minor key. Participants who heard the musical piece in major mode had above average improvements in mood after listening to the music, however mood declined or remained unchanged after participants heard the musical piece in minor mode. These results indicate that the “Mozart effect and other effects of music on cognitive abilities are due, at least in part, to the tempo and mode of the piece used in the listening section” (Husain et al., 2002, pg. 165). Specific components of a piece of music, such as Mozart’s work, have different and specific effects on individuals’ mood, arousal, and cognitive ability.

In an everyday setting, listeners of music claim to have experienced different feelings and emotions after listening to a piece of music (Juslin & Laukka, 2004). The question of whether specific feelings can be induced by a piece of music is addressed by Hunter, Schellenberg, & Schimmack (2010). Hunter et al. (2010) examined the similarities and differences between listeners’ perceptions of emotions experienced after listening to a piece of music and their actual emotional responses. Pieces of music were varied among participants in regards to tempo and mode. Four groups were constructed ranging from fast to slow tempo and minor to major key. Participants were asked to rate their perceptions of emotional experience by answering six questions displayed on a computer monitor after having finished listening to the music, and then were assessed based on their actual emotions by a data analysis method called “Conflicting Reactions Model.” The results showed that self-reported perceptions and analyzed feelings were highly correlated, but participants rated their perceptions more highly than their actual feelings.
The highest rate for happiness among participants were expressed after listening to a faster tempo and major key piece of music, and sadness ratings were more highly expressed after listening to a slow tempo and minor piece of music. During a compilation of fast and slow tempo music with major and minor modes, a mixture of emotional responses occurred. The results indicate that the distinction made between feeling and perceiving emotions is one of intensity rather than quality, and that listeners’ feelings are mediated by perception. This means that the perceived effect of music on participants is slightly more intense than when analyzed further using the “Conflicting Reactions Model”. Although an effect still takes place on a listener’s emotions, the effect is not as intense as originally perceived.

For the purposes of the proposed research, it is necessary to operationally define violence within the specific scope of music videos, which will be the main stimuli for the present research. Smith and Boyson (2002) conducted a study examining violence in music video programming and found that 15% of the music videos analyzed featured some instance of physical aggression. The definition of violence for Smith and Boyson’s (2002) experiment included “any overt depiction of a credible threat of physical force or the actual use of such force intended to physically harm an animate being or group of beings. Violence also included certain depictions of physically harmful consequences against an animate being or group that result from unforeseen violent means” (Smith and Boyson, 2002, p. 66).

A spectrum of levels specifying types of violence is required for the sake of the present research and is derived from Martin and Collins (2002). Martin and Collins (2002) conducted a content analysis of 191 music videos from New Zealand television and examined whether the selection of music videos contained violence, the types of violence depicted, the brands and products associated with the types of violence depicted, and finally what the differences were
between music genres and videos. The results revealed that violence is evident in a significant portion of music videos, and that particular products are associated with specific types of violence. Interestingly, United States heavy rock was found to be less violence oriented toward humans depicted compared to heavy rock displayed in New Zealand. Martin and Collins (2002) also coded five levels of violence: 1) no violence present, 2) object-focused violence present (e.g. someone smashing a chair), 3) animal-focused violence (e.g. kicking a cat), 4) person-focused violence (e.g. punching someone), and 5) combined violence, where more than one of the previous violence categories are shown. It is from Wilson et al. (1997) and Martin and Collins (2002) that the current research derived an operational definition of violence as well as a spectrum of violence varying across three levels.

The concept of empathy is an additional variable that will be tested along with the Dark Triad construct in order to investigate effects of music videos. It is only in recent years that psychology has investigated the relationship between empathy and music. For example, empathy has been investigated during live music performances (Baltes, & Miu, 2014). There has also been research examining whether certain musical preferences can predict empathy and/or prosocial behavior (Clark, & Giacomantonio, 2013), how empathy is related to perceiving emotional expression in music (Wölner, 2012), how viewers relate to characters when film music is combined with images (Hoeckner, Wyatt, Decety, & Nusbaum, 2011), whether empathy manipulation can have an effect on music-induced emotion (Miu, & Baltes, 2012), and why certain people choose to listen to sad music (Vuokskoski, Thompson, McIlwain, & Eerola, 2012).

Baltes and Miu (2014) investigated the contributions of three individual differences when experiencing emotional responses during a live opera performance: empathy, visual imagery, and mood. The authors had participants watch a live opera with the intention of inducing emotions.
After the opera had concluded, participants were instructed to complete self-report measures that assessed music-induced emotions, trait empathy, and vividness of visual imagery. They also completed a self-report measure of mood before and after the performance. The feelings that were induced immediately after the performance included sadness and tension, significant decreases in power, joyful activation, tenderness, and peacefulness. Baltes and Miu (2014) also found that participants who experienced high-empathy developed more sublimity after the second act of the performance compared to low-empathy individuals. This was thought to be due to the tolerance of a main character’s negative emotions (Baltes & Miu, 2014). The study is taken as support for a link between music and empathy, specifically during a live performance. However, there is a possibility that individuals who are also high in empathy prefer different genres of music.

Clark and Giacomantonio (2013) focused on sex differences between music preferences and empathy along with the potential of music preferences to predict empathy. Although men and women were found to be significantly different on music preferences and empathy, the researchers also found that individuals with a preference for reflexive and complex music or a preference for intense and rebellious music tended to have the highest empathy as opposed to those with a preference for upbeat and conventional music or a preference for energetic and rhythmic music. Women showed a greater preference for music that was upbeat and conventional whereas men had a greater preference for intense and rebellious music. This study supports the link between empathy and music being displayed in a different aspect of music.

Research has also explored the role of audiovisual presentations of emotion in music and the effect these presentations have on empathy levels. Wöllner (2012) hypothesized that empathy plays a role in the influence of audiovisual estimations of emotional expression. The
author instructed string quartet musicians to watch videos of their own performance and rate their own performance on expressiveness. Wöllner (2012) also had independent observers watch the same videos of the string quartet musicians performing in different ways: first in a visual-only condition, then an auditory-only sequence, and finally followed by randomized audiovisual films. The independent observers were also asked to rate the expressiveness of emotion that the videos portrayed and were given an assessment of cognitive and affective empathy. It was found that independent observers who were higher in affective and overall empathy were more accurate in the rating of emotional expression of the quartet’s performance in accordance with the ratings of the string quartet musicians (Wöllner, 2012). The results were interpreted to mean that empathy facilitates estimations of other individuals’ intentions, which could be key to aesthetic appreciations of different forms of the performing arts (Wöllner, 2012). This study provides another link between music and empathy in regards to the perception of musical expression.

Hoeckner et al. (2011) examined whether a viewer’s connection with a character in a movie can be influenced by the music played throughout the film. The main question was whether “film music, by creating a context of emotional and narrative certainty or uncertainty, would increase or lower viewers’ confidence of knowing what a character is thinking or feeling” (Hoeckner et al., 2011, pg. 147). Hoeckner et al. (2011) divided participants into three groups based on what music was played during the film clips: melodramatic music, thriller music, or no music at all. Participants were then asked to rate the likability of the character within the clip and the participant’s confidence regarding what they thought the character was thinking or feeling. Finally, participants were asked to recall what events took place within the film clip and what they believed the characters within the film clip were feeling. Hoeckner et al. (2011) found that the music played within the film clips influenced how much viewers liked or disliked a
character as well as the viewers’ confidence for what they believed the characters were thinking or feeling. With the combination of a film clip depicting a character in a certain manner and the music in a specific style, viewers’ empathy can be affected in the sense of identification with another person (Hoeckner et al., 2011).

Miu and Baltes (2012) added to empathy research by investigating the effects of voluntary empathy for a musical performer on music induced emotion and physiological activity. The general prediction of the study was that high empathy will show higher physiological response as well as more effective music-induced emotion when compared to low empathy. The researchers instructed participants to complete a mood and trait empathy questionnaire before listening to and watching a clip of a musician performance. While the viewing took place, each participant was also measured on various physiological factors including heart rate, skin conductance, and respiration rate. Empathy levels were manipulated by the researchers who instructed participants to either try to experience the emotions experienced by the musician and imagine, as vividly as possible, how the performer feels, or to take an objective stance toward the musician’s performance. Miu and Baltes (2012) found that in high empathy conditions, participants reported feelings of nostalgia and power as well as greater physiological effects such as lower skin conductance and faster heart rate when compared to the low empathy conditions. According to Miu and Baltes (2012), this research provides a strong argument that cognitive empathy influences emotion and physiology during music listening.

Vuoskoski et al. (2012) instructed participants to complete a personality trait assessment before the music listening phase and an assessment of empathy after the music listening phase. While listening to the music excerpt, participants rated the emotions felt. The musical excerpts were varied in emotional tone ranging from scary, happy, sad, to tender. The findings showed
that sadness was the most salient emotion in response to sad music excerpts. Personality traits that were connected with the liking of sad music were openness and empathy which suggests that empathic engagement and aesthetic appreciation play a significant role in the appreciation of sad music (Vuoskoski et al., 2012).

**Effects of Exposure to Visual Stimuli on the Dark Triad**

In order to understand how music videos may affect people, research regarding visual media should be discussed in addition to the research on effects of music. Linz et al. (1988) investigated the long-term effects on individuals after being exposed to violent film clips depicting violence and rape against women, and also examined a possible shift of beliefs on the sexual objectification of women. Participants were assigned to one of three groups of movie clip viewing: violent R-rated movie clips, nonviolent R-rated movie clips, and X-rated nonviolent movie clips. Clips either depicted extreme violence toward women including rape and killings, or included sexual objectification of women. After the conclusion of the viewing of violent media, participants were later contacted to watch a law school documentary depicting a rape trial with a background story stating the rape victim had given consensual permission for sexual acts to take place. However, the viewing of the rape documentary differed in two conditions for participants. In one condition the accused and the victim were acquaintances and in the other condition the accused and the victim were not acquainted. Participants were then asked to fill out several questionnaires after the viewing of the documentary, measuring rape empathy, rape myth acceptance, sexual objectification, victim empathy, and finally a judgment ruling in the documentary previously viewed. Participants who were placed in the violent movie conditions became less anxious and depressed and showed less negative affective responses after the viewing of the rape trial documentary. Empathy toward rape victims and sympathy were
decreased for this group of participants. There was no difference between movie conditions in regards to sexual objectification or rape trial variables. The researchers noted that “sexually violent material that was originally anxiety provoking and depressing became less so with prolonged exposure” (Linz et al., 1988, p. 765). Given that these types of effects were observed after participants watched violent music videos, it is reasonable to predict that violent heavy music videos will have similar effects.

In addition to effects on sexual objectification and general violence, visual media can have an effect on aggression in children and adults as well. Bushman and Huesmann (2006) investigated the long and short term effects of viewing violent media within the populations of both adults and children through a meta-analytical approach of past research concerning violent media exposure. The findings showed that the short-term effects of violent media exposure were greater for the adult population whereas the long-term effects were greater for children. The effects shown after the viewing of violent media included significant positive correlations within aggressive behaviors, aggressive thoughts, arousal, and negative correlations within helping behaviors (Bushman & Huesmann, 2006). The differences between the populations were attributed to effects of encoding. “The adult population showed greater short-term effects due to the existence of encoded schemas and scripts which adults have had more time to encode…the children population showed greater long-term effects due to the learning of scripts and schemas in their young age” (Bushman & Huesmann, p. 351, 2006). Children have less interference in learning new schemas or beliefs than adults do, suggesting that visual media have different effects in populations varying on time and age. Although short-term effects have been shown to be caused by the exposure to violent media, the long-term effects, specifically desensitization,
have yet to be discussed. These short-term effects of violent media are similar to what is expected to be found in the current research after having viewed violent content in music videos.

Fanti, Vanman, Venrich, and Avraamides (2009) had participants watch movie clips from one of two categories. One group watched nine violent movie scenes while the other group watched nine comedy scenes. Participants were then asked to rate their sympathy toward a victim of violence and were asked if they enjoyed the nine clips that were shown in their respective conditions. The rating of sympathy and enjoyment of the movie clip was administered after each individual clip viewed by the participants. Fanti et al. (2009) investigated “how desensitization develops over a short period of time that includes repeated exposure to media violence” (Fanti et al., 2009, p. 180). The results indicated participants who viewed violent movie clips tended to feel increasingly less sympathetic to the victim as each new clip was shown, and these participants were shown to enjoy clips with greater violence more. These findings indicated that the process of desensitization to violent media can take place when repeated exposure is practiced within a short amount of time.

Funk et al. (2004) investigated the existence of a relationship between real-life and media violence exposure and desensitization as it is reflected in various characteristics in individuals, specifically empathy and attitudes towards violence. The researchers had elementary school children complete four questionnaires examining background and demographic information as well as media use and preferences. A survey questioning exposure to real-life violence across different settings was also given along with an assessment of children’s attitudes towards violence and finally a measure of children’s empathy. Funk et al. (2004) found that children who were more often exposed to video game violence possessed lower empathy levels and stronger pro-violence attitudes. The child participants who were more often exposed to real-life movie
violence also shared pro-violence attitudes. However no measurement of desensitization provided significant results. The lower levels of empathy in child participants were found to be associated with various real-life violence exposure mediums such as violence observed at home, school, and in neighborhoods.

Krahé et al. (2011) examined whether habitual media violence exposure predicted desensitization to violent media stimuli as demonstrated by the outcome variables of aggressive cognitions and behavior. Participants were first given a series of online questionnaires assessing habitual media violence exposure, trait arousability, trait aggression, and aggressive normative beliefs. After the conclusion of the first part of the study, participants viewed two violent movie clips, and a sad movie clip or a funny movie clip. Skin conductance levels were measured during the viewing of these clips and self-reported affective responses and perceptions of film clips were assessed as well as accessibility of aggressive thoughts through a lexical decision task, and finally aggressive behavior through a reaction time task. The results suggested that “the more individuals habitually used violent media contents, the less physiological reactivity they showed to a violent film clip presented to them in a laboratory setting” (Krahé et al., 2011, p. 642). Skin conductance was negatively correlated with habitual media violence exposure during violent film clips and positively correlated with pleasant arousal, response time for aggressive words, and trait aggression. During the laboratory tasks, neither habitual media violence usage nor anxious or pleasant arousal predicted aggression (Krahé et al., 2011). In the viewing of the sad and funny film clips, no relationship existed between habitual media violence and arousal; arousal also did not predict aggressive behavior or cognitions during the laboratory task. These findings suggest that observed desensitization effects are specific to violent content and support the claim that visual media can affect individuals’ behavior.
Nikkelen et al. (2012) examined the effects of males’ visual attention centered on male images in visual media in relation to male body dissatisfaction. Participants were instructed to view 18 male image body parts while their eye movements were recorded. Participants were then placed in two different conditions of commercial viewing. One condition was the experimental commercial condition and the other was the neutral commercial condition. Participants were instructed to watch a documentary that was interrupted by two commercial breaks containing either neutral commercials or idealized commercials. After the documentary concluded, participants were instructed to complete a body dissatisfaction questionnaire and body fat measures were obtained as well. When viewing idealized media content, men who had displayed high visual attention focused on the abdomen of the male body part images felt more positively about their bodies compared to men who showed less focused attention on the abdominal area. In the neutral commercial condition, men with high visual attention to the abdominal area of the body felt worse about their body compared to men who did not focus primarily on the abdominal area (Nikkelen et al., 2012). The results suggest that not all idealized media images affect men negatively; men who allocate their primary attention to the abdomen of the body may be positively affected by idealized images. The results also suggest that temporary personality effects do take place after having viewed some form of media content which provides a basis for the hypothesized temporary personality effects in the present study.

A wide range of research has demonstrated effects of watching music videos on sexual attitudes (Kalof, 1999; Zhang, Miller, & Harrison, 2008; Kristler, & Lee, 2010), attitudes about suicide (Rustad, Small, Jobes, Safer, & Peterson, 2003), adolescent alcohol use (Van den Bulek, & Beullens, 2005), and males’ aggression and endorsement of rape myths and sexual stereotypes (Sprankle, End., & Bretz, 2012). Kristler and Lee (2010) investigated the short-term effects of
watching hip-hop music videos with varying degrees of sexual imagery. The outcomes that were measured throughout the study included the viewers’ acceptance of the objectification of women, sexual permissiveness, gender attitudes, and rape myth acceptance. Prior to the beginning of the study, male and female participants were instructed to fill out a gender attitude questionnaire to obtain a baseline attitude score. Afterwards, participants were divided into two conditions which varied in sexual content. Five music videos were shown to each participant, and then each participant was instructed to complete the post-test questionnaires measuring the dependent variables previously listed. Participants who were placed in the highly sexualized music video condition exhibited a higher level of objectification of women and men who watched these hyper sexualized music videos also exhibited higher levels of traditional gender attitudes and rape acceptance (Krister & Lee, 2010). These findings suggest that sexual imagery within music videos can affect male participants in multiple ways.

Another example of research on the relationship between sexual music videos and sexual attitudes is a study by Zhang et al. (2008). Participants were asked to rate the viewing frequency of 75 different music videos varying in sexual explicitness and were then measured on premarital sexual permissiveness and the endorsement of the sexual double standard. The authors’ expectations were confirmed when “exposure to more sexually explicit music videos was associated with more permissive attitudes toward premarital sex and stronger endorsement of the sexual double standard…” (Zhang et al., 2008, p. 368). The authors clarified that these results were correlational in nature; individuals who watched more sexualized music videos were also more likely to hold the view that sex is recreational and inconsequential.

Kalof (1999) investigated the effects of gender stereotyped music video imagery on the viewers’ sexual attitudes. Participants were divided into two groups: in one group, participants
were instructed to watch a segment of music videos which depicted gender stereotypic roles, and in the other group participants were instructed to watch a segment of music videos with an exclusion of gender stereotype depictions. Once participants had watched their assigned segment of videos, they were instructed to complete a 68-item questionnaire measuring adversarial sexual beliefs, acceptance of rape myths, acceptance of interpersonal violence, and gender role stereotyping. Results showed that male participants scored higher on the sexual attitude subscales, “indicating men’s greater endorsement of adversarial sexual beliefs, gender role stereotyping, and rape myths” (Kalof, 1999, p. 381). Further, exposure to traditional imagery in music videos increased adversarial sexual beliefs.

Another area of research conducted concerning music videos is whether or not watching stimuli that contain suicidal content influences suicidal attitudes. Rustad et al. (2003) investigated whether exposure to a music video with suicidal content would a) affect a participant’s mood, b) prime the perception of suicidal thoughts when viewing ambiguous stimuli, c) increase perceptions of personal risk for a variety of negative outcomes, d) increase the perception of suicidality amongst others, and finally e) influence social attitudes regarding suicide. In one experiment participants were placed in one of two conditions: in the experimental condition participants watched a rock music video that included suicidal content, and in the control condition participants watched rock music videos without suicidal content and then participants in both conditions completed measures of suicidal thought. The experimental group of participants who viewed rock music videos with suicidal content reported higher negative affect than the group of participants who watched a rock music video without suicidal content. In a second experiment participants listened to a series of songs without videos while simultaneously reading the lyrics of the song, and then completed the same measures used in the
first experiment. Participants reported more stories containing suicidal content in the experimental condition compared to the control condition. These results were similar to the results obtained from the first experiment reflecting that the listening to or watching of a music video containing suicidal content can influence higher negative affect in participants (Rustad et al., 2003).

Van den Bulck and Beullens (2005) explored the possibility of music video exposure predicting alcohol consumption. This study investigated the relationship between television use and the adolescent alcohol use in the context of going out to social environments. The authors instructed participants to complete a series of questionnaires assessing the viewing frequency of television along with drinking behavior. A year later, the same group of participants completed a follow-up series of questionnaires that assessed the same previous behaviors. The measures included assessments of frequency of music video exposure, television viewing volume, quantity of alcohol consumption when going out, pubertal status, and smoking status. The authors found that “television viewing volume and music video viewing volume are positively related to the amount of alcohol consumed while going out…” (Van den Bulck & Beullens, 2005, p. 251). The results of this study suggest that there is a longitudinal relationship between exposure to music television programs and alcohol consumption in social environments.

Finally, research has also explored the effects of music videos on male aggression, endorsement of rape myths and sexual stereotypes. Sprankle et al. (2012) investigated the effects of sexually degrading music videos and music lyrics on males’ aggressive behaviors toward women as well as the other dependent variables previously listed. Sprankle et al. (2012) first had participants watch eight music videos and determine the sexual degradation expressed in each of the videos and the lyrics of the song in the videos to ensure the choice of music videos depicted
the desired content for the study. The ratings of sexual degrading content in the music video and
the lyrics were provided by the participant. A factorial design was conducted in which the
researchers manipulated the presence of lyrics and the presence of images in videos which
participants were instructed to watch. The participants were then instructed to complete a series
of questionnaires inquiring about attitudes toward sexual stereotypes and rape myths. After the
completion of questionnaires, the male participants were asked to design a future experiment
which examined the impact of sensory distractions on intellectual performance. The male
participants were informed that female participants were to be instructed to place their non-
dominant hand in a bowl of ice water while completing such cognitive tasks. Males were asked
for a recommended amount of time for female participants to place their hand in ice cold water.
The male participants were also informed that if left in ice cold water for more than 25 seconds,
the sensation can become painful. Regardless of presented imagery or lyric content, there were
no differences between groups of male participants in regards to sexual stereotypes, rape myths,
or aggressive behaviors. In summary, although music videos can influence sexual attitudes
(Kalof, 1999; Zhang et al., 2008; Kristler & Lee, 2010) it is suggested through Sprankle et al.
(2012) that there may not be influences of sexual degrading content on aggression.

Research examining the potential relationship between music video exposure and the
Dark Triad is currently limited. Given previous findings on the links between the measures of
empathy and the Dark Triad measure, along with the similar findings related to music video
exposure, it is logical to predict that music video exposure will influence scores on a measure of
the Dark Triad. Although research has been limited linking empathy and the Dark Triad as a
whole construct, research has shown a relationship between one or two of the three variables of
the Dark Triad measure and empathy (Watson & Morris, 1991; Austin et al., 2007; Ali et al.,
2009; Baskin-Sommers et al., 2014). Machiavellianism displays a weak relationship with empathy, and narcissism and psychopathy are high in cases of deficits in empathy. Research findings concerning music exposure and empathy have varied dramatically across methods employed. However, one method that is relevant to the proposed research is visual stimulation while listening to music (Hoeckner et al., 2011). Hoeckner et al. (2011) argued that, depending on the picture display and manner of music played, empathic concern and accuracy may be affected. Empathy has also been utilized as a predictor variable during a live performance of music; high empathic individuals were found to have a higher development of sublimity after the performance (Baltes & Miu, 2014). These previous findings suggest that exposure to music can affect measures of empathy and the Dark Triad.

The following hypotheses for the current research are: 1) individuals exposed to person-based violence in music video portrayals will show more negative affect on a word search as a measure of affect than those exposed to object-based violence or non-violent music videos; 2) individuals exposed to person-based violence and/or hostile music video portrayals will score lower on a measure of empathy; 3) individuals exposed to person-based violence and/or hostile music video portrayals will score higher on the Dark Triad measure, when compared to those exposed to object-based and/or non-violent music videos of the same genre; and 4) individuals who score higher on the Dark Triad measure will score lower on the empathy measure and vice versa showing a negative correlation.
CHAPTER 3
METHODOLOGY

Participants

Participants for this study were students enrolled in psychology courses at the University of Central Missouri. All participants were at least 18 years of age ($M = 19.75$ years; $SD = 2.96$ years) and of normal hearing eligibility. Participants were recruited from classrooms and from the online research participation site known as SONA. The proposed sample size was a total of 179 participants, based on a power analysis using the statistical tool, G*Power (Bruin, 2006). The total sample size was 201 participants ($Male = 67$; $Female = 133$). This power analysis was based on a medium effect size and achieving a power of .80. The majority of the sample were freshmen in college while few participants were spread across other class ranks ($Freshmen = 52.7\%; Sophmores = 21.9\%; Juniors = 11.9\%, Seniors = 12.4\%$). Preference for music genres was evenly spread across the four options ($Rock = 23.9\%; Rap = 26.4\%; Country = 24.9\%; Other = 24.4\%$). Participants also reported on the number of hours spent viewing music videos in a week ($M = 3.10$ hours; $SD = 5.56$ hours).

Materials

Materials for this study included three music videos depicting different levels of violence/hostility which is operationally defined below, a cognitive and affective empathy measure (Reniers et al., 2011; Appendix A), the Dark Triad personality measure (Jonason & Webster, 2010; Appendix B), and a word search (see Appendix C). The study also included a brief demographics questionnaire (see Appendix D). All participants received an informed consent form (see Appendix E).

The Questionnaire of Cognitive and Affective Empathy (QCAE) (Reiners et al., 2011) is a 31-item questionnaire rated on a four-point Likert scale with the response options
"strongly agree", “slightly agree”, “slightly disagree”, and “strongly disagree.” A confirmatory factor analysis was conducted on the QCAE, indicating consistency of the factor structure across both genders. Convergent and construct validity were also examined in Reiners et al. (2011). The cognitive and affective empathy scores on the QCAE and Basic Empathy Scale (BES) (Jolliffe & Farrington, 2006) showed strong positive correlations: $r = .62, p < .001$ for cognitive empathy; $r = .76, p < .001$ for affective empathy, demonstrating strong convergent validity with other validated empathy measures. Construct validity was examined by correlating the QCAE with questionnaires assessing anger, impulsiveness, life history of aggression, person’s view of their own aggression, primary and secondary psychopathy, and Machiavellianism. Significant differences between cognitive and affective empathy in relationship to these theoretically relevant measures were identified. Cognitive empathy showed a significantly stronger negative relationship with dysfunctional impulsivity, $t(508) = -4.88, p < .001$, and secondary psychopathy, $t(508) = -4.71, p < .001$, than did affective empathy. Affective empathy correlated significantly more with empathic anger, $t(508) = -2.76, p < .05$, and expressive aggression, $t(508) = -2.83, p < .01$, than with cognitive empathy. The Cronbach’s alphas for the five scales of raw scores consisting of this empathy questionnaire were found to be .85, .72, .83, .65, and .70, respectively. Summing the subscale scores for perspective taking and online simulation gives a cognitive empathy score. Summing the subscale scores for emotion contagion, proximal responsivity, and peripheral responsivity provides an affective empathy score. The sum of the cognitive and affective empathy scores provides the cumulative total empathy score. The two cognitive subscales are summed to produce the score on the cognitive empathy scale and the three affective subscales are summed to produce the affective empathy score.
The Dirty Dozen (Jonason & Webster, 2010) is a 12-item measure of the Dark Triad which assesses narcissism, psychopathy, and Machiavellianism. Jonason and Webster (2010) examined the convergent and discriminant validity and found a consistent pattern of convergent and discriminant validity among the Dark Triad components. Item-level test-retest reliability ranged from .72 to .94. The mean item-level temporal reliability α’s for the Machiavellianism, psychopathy, and narcissism subscales were .92, .84, and .92 respectively. In terms of convergent validity, the Dirty Dozen measure showed a correlation with the 12-item Aggression questionnaire of .51 suggesting that people who score highly on the Dark Triad may also use aggression to get what they want. The measure uses a response scale from 1 (strongly disagree) to 9 (strongly agree). The three Dark Triad measures can be treated as one measure (Jonason et al., 2009). Jonason et al. (2009) standardized (z-scored) the overall scores on each of the three scales and then averaged all three standardized scores together to create a composite Dark Triad score.

A word search paradigm has been used in previous research as an effective measure of priming (Eitam, Hassin, & Scul, 2008), and was used as a measure of affect in the current research in which participants were instructed to locate only the first ten words they saw. It was used as a dependent variable to demonstrate the effects from watching the selected music videos and is believed to be a better choice than the PANAS (Crawford & Henry, 2004) due to the demand characteristics that may affect PANAS scores as a traditional measure of affect. The word search consisted of 30 words that were selected from the MRC Psycholinguistic Database (Colheart, 1981). Words were divided into three categories: 10 positively charged words, 10 negatively charged words, and 10 neutral words. Words were chosen to match across the three categories on Kucera-Francis written frequency; mean word frequencies were as follows: 77.0
for negatively charged words, 78.9 for positively charged words, and 76.1 for neutral words. A pilot study was conducted to assess a general consensus of the placement of words into their established three categories.

The pilot study contained a word bank consisting of 30 words which were derived from the MRC Psycholinguistic Database (Colheart, 1981). Ten participants volunteered for the completion of the study and were instructed to write each word under either a positive, negative, or neutral word column only once. Participants were asked to judge each word separately under which column to which they felt they the words belonged. Results indicated that 85% of participants accurately wrote the intended ten words under the positive column, 83% of participants accurately wrote the intended ten words under the neutral column, and 77% of participants accurately wrote the intended ten words under the negative column. The placement of words and percentages reflect the utility of a word search in the proposed study as a measure of affect.

Three heavy metal music videos were utilized due to the genre being the most studied in relation to violent behavior: “Subverse” – This or the Apocalypse (3:58), “The Lines” – Beartooth (4:25), and “Premeditated” – The Plot in You (4:16). The three selected music video depictions matched with the lyrics of the songs themselves in terms of depicting violence. All three videos were within the same musical genre defined by Shafron and Karno (2013) as follows: “The genre of heavy metal can be broadly illustrated as consisting of ‘numerous stylistic variations on heavy metal’s core sound, but they’re all tied together by a reliance on loud, distorted guitars (usually playing repeated riffs) and simple, pounding rhythms’” (Shafron & Karno, pg. 75, 2013). Violence is operationally defined as any form of physical force intended to harm an inanimate object or animate being. This definition is derived from previous
research conducted by Smith and Boyson (2002). The three levels of varying violence were: 1) no violence present, 2) object-focused violence (e.g. someone causing damage to an inanimate object, and 3) person-focused violence (e.g. someone causing harm to another person).

**Procedure**

Upon entering the experimental psychology lab, participants were given informed consent forms explaining their rights as participants in a psychological study. Once the consent process had been completed, the participants were randomly placed into one of three groups by the researcher: violent/hostile heavy metal music video, mild violent heavy metal music video, non-violent heavy metal music video. The participant was asked to view one of the three music videos depending on which group the participant was randomly placed in. Participants listened to and watched the music videos while wearing a pair of headphones set at a standardized volume level. The packet of questionnaires was presented in the following order: the word search, the Dirty Dozen measure, the QCAE, and finally the demographics questionnaire. Each questionnaire was preceded with written instructions for completion. For the word search, participants were asked to locate only the first ten words they saw. Once all questionnaires were completed, the participant was then debriefed as to the nature of the study and told that any effects would be short term.

In summary, the independent variable for the current research was music video exposure varied across three levels of escalating violence. The dependent variables measured for the current research were a word search serving as a measure of affect, the Dark Triad measure which contained the variables of narcissism, psychopathy, and Machiavellianism; and finally an empathy measure which contained measures of cognitive empathy and affective empathy.
Analysis

The analysis for the current research involved three statistical methods for the three hypotheses. For the first hypothesis the word search was the dependent variable and an ANOVA analysis was done to test for a significant effect of the independent variable of the type of music video. An additional ANOVA was conducted to analyze effect on the dependent variable of the empathy measure from the independent variable of the music video, addressing the second hypothesis of the current research. The third hypothesis was tested by using a MANOVA to measure the effect of the independent variable of the music video on the dependent variable, the Dark Triad. Finally, the fourth hypothesis was analyzed by using a correlational analysis (Pearson $r$’s) to correlate the scores on the Dark Triad measure and the scores on the empathy measure.
CHAPTER 4
RESULTS

**Between Group Differences**

In order to address the first hypothesis of the current study analyses of variance (ANOVA) were conducted comparing the number of words found on a self-developed word search across the three conditions of music video violence (see Table 1). These ANOVAs were conducted to test the effect of the independent variable of the type of music video. The scores for the dependent variables were calculated by summing the number of words found for the three separate types of words: negative, neutral, and positive (reflecting that a positive, negative, or neutral prime had been presented to participants). All assumptions for the ANOVA procedure were satisfied for the negative and neutral words including interval/ratio data, independent observations, normal distribution, and homogeneity of variance. However for the positive words in the word search all assumptions were unviolated except for homogeneity of variance. The Levene’s statistic for the ANOVA revealed insignificance with the $p$-value equal to .75 for the negative words, .62 for the neutral words, and finally a significant $p$-value of .03 for the positive words. The Brown-Forsythe $F$ is designed to be used when homogeneity of variance has been violated (Field, 2013). For negative words found on the word search, there were no significant differences between participants in the no violence present condition, participants in the object-based violence condition, and participants in the person-based violence condition on this measure, $F(2, 200) = .22, p = .80$. In terms of neutral words found on the word search, there were no significant differences between participants in the no violence present condition, participants in the object-based violence condition, and participants in the person-based violence condition on this measure, $F(2, 200) = 1.14, p = .32$. In terms of positive words found on the word search, there were no significant differences between participants in the no violence present
VIOLENT MUSIC VIDEOS

condition, participants in the object-based violence condition, and participants in the person-based violence condition on this measure, $F(2, 200) = 1.16, p = .32$, using the Brown-Forsythe procedure. In summary, there were no significant differences between participants who watched music videos with no violence present, participants who watched music videos with object-based violence present and participants who watched music videos with person-based violence present in terms of finding negative, neutral, or positive words on the word search measure.

Table 1

<table>
<thead>
<tr>
<th>Level of Violence</th>
<th>Negative Words</th>
<th>Neutral Words</th>
<th>Positive Words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M(SD)</td>
<td>n</td>
</tr>
<tr>
<td>No Violence Present</td>
<td>69</td>
<td>2.00(1.26)</td>
<td>69</td>
</tr>
<tr>
<td>Object Based Violence</td>
<td>66</td>
<td>1.88(1.17)</td>
<td>66</td>
</tr>
<tr>
<td>Person Based Violence</td>
<td>66</td>
<td>1.88(1.23)</td>
<td>66</td>
</tr>
</tbody>
</table>

A second analysis of variance (ANOVA) was conducted to address the second hypothesis of the current research which compared the scores between the three conditions of music video violence on the cognitive and affective empathy measure (Reniers et al., 2011). The scores for this measure were calculated by summing the responses so that higher scores reflect an understanding of other’s emotions and affect congruence. Questions one, two, seventeen, and twenty nine were reversed scored. All assumptions for conducting this ANOVA were satisfied including measuring interval/ratio data, independent observations, a normal distribution of the data, and homogeneity of variance. The Levene’s statistic revealed a significance level of .30 revealing the assumption of homogeneity of variance was unviolated. There were no significant differences between participants in the no violence present condition, participants in the object-
based violence condition, and participants in the person-based violence condition on this measure, $F(2, 199) = .79, p = .454$.

A multivariate analysis of variance (MANOVA) was conducted comparing scores across the three conditions of music video violence on the three subscales of the Dark Triad measure (Jonason & Webster, 2010). This MANOVA was conducted to address the third hypothesis of the current research and to measure the effect of the independent variable of the music video on the dependent variable, the Dark Triad. The scores for this measure were calculated by summing the responses of the three individual scales. Higher narcissism scores reflect a higher likelihood that the participants have high impression management. Higher psychopathy scores reflect higher rates of antisocial tendencies and higher Machiavellianism scores reflect a higher tendency to enjoy manipulating others. All assumptions for analyzing data via the MANOVA statistic were not violated including independence, random sampling, multivariate normality, and homogeneity of covariance matrices in which the Levene’s statistic was insignificant across the three variables of the Dark Triad. The Levene’s significance levels were as follows: for narcissism the Levene’s statistic was .64, for Machiavellianism it was .21, and finally for psychopathy it was also .21. The test statistic that was chosen to analyze the overall effect on the three dependent variables in the MANOVA was Roy’s Largest Root which was used based on achieving the highest possible power: “If group differences are concentrated on the first variate Roy’s statistic should be the most powerful…” (Field, 2013, p. 643). Roy’s Largest Root was the best test statistic for the current research due to group differences only differing upon the variate of condition. There was a significant effect of music video violence on the Dark Triad measure, $\Theta = 0.06, F (3, 197) = 4.11, p = .01$. Separate univariate ANOVAs on the dependent variables revealed non-significant music video violence effects on narcissism items, $F (2, 201) =$
0.32, $p = .725$, $\eta^2 = .003$ and Machiavellianism items, $F(2, 200) = 0.44$, $p = .646$, $\eta^2 = .004$ but significant music video violence effect on psychopathy items, $F(2, 200) = 4.71$, $p = .01$, $\eta^2 = .003$. Across the three separate conditions, the means were higher in regards to both narcissism and Machiavellianism compared to the means represented by psychopathy (refer to Table 2). Post-hoc analysis using Bonferroni comparisons on the psychopathy variable revealed that the person based violence music video condition was significantly different in comparison to the no violence present condition and the object based violence condition with a significance level of .01. Participants who viewed music videos that were either non-violent or object based violent scored significantly higher on the Dark Triad measure compared to those who viewed music videos that included person based violence (refer to Table 2).

Table 2

*Proportion of Traits in Violent Music Video Conditions*

<table>
<thead>
<tr>
<th>Level of Violence</th>
<th>Empathy $n$</th>
<th>M(SD)</th>
<th>Narcissism $n$</th>
<th>M(SD)</th>
<th>Machiavellianism $n$</th>
<th>M(SD)</th>
<th>Psychopathy $n$</th>
<th>M(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Violence Present</td>
<td>69</td>
<td>61.71(11.11)</td>
<td>69</td>
<td>18.75(7.13)</td>
<td>69</td>
<td>16.71(7.56)</td>
<td>69</td>
<td>11.59(5.58)</td>
</tr>
<tr>
<td>Object Based Violence</td>
<td>66</td>
<td>60.92(9.76)</td>
<td>66</td>
<td>19.41(6.72)</td>
<td>66</td>
<td>17.52(6.53)</td>
<td>66</td>
<td>12.45(6.65)</td>
</tr>
<tr>
<td>Person Based Violence</td>
<td>66</td>
<td>59.56(10.0)</td>
<td>66</td>
<td>19.68(6.90)</td>
<td>66</td>
<td>16.42(6.67)</td>
<td>66</td>
<td>9.38(5.23)</td>
</tr>
</tbody>
</table>

**Correlational Relationships**

A correlation was computed to assess the relationship between dark triad personality measure as a whole and the empathy measure to address the fourth hypothesis of the current research. A Pearson $r$ was computed between scores on the empathy measure and scores on the Dark Triad measure. The correlation was statistically significant, $r (201) = .22$, $p = .001$. The coefficient of determination of .05 indicates that variance participants’ scores on one measure
can explain five percent of variance scores on the other measure. All assumptions were met in order to conduct a correlation analysis including analyzing the appropriate types of data, having independent observations, having a normal distribution in the output, and having a linear relationship. There was no evidence of a non-linear relationship that is strong enough to violate the assumption, based on an examination of the scatterplot (refer to Figure 1). The scores on the Dark Triad personality measure were moderately and positively correlated with the reported levels of cognitive and effective empathy.

**Figure 1.** Scatterplot displaying the correlational between the Dark Triad measure (DDT Total) and Empathy measure (CAE Total) after having watched violent music video stimuli.
Supplementary Analyses

Additional analyses were conducted including several 2 x 3 factorial ANOVAs examining the effects on the separate Dark Triad personality traits and separate empathy scores in relation to the music video condition and gender. The first factorial ANOVAs were conducted on the Dark Triad measure as a whole and the empathy measure as a whole. Concerning the Dark Triad measure, a two-way between subjects ANOVA showed a non-significant main effect of condition, $F(2, 201) = 0.92, p = .401$, partial $\eta^2 = .01$, a significant main effect of gender, $F(2, 201) = 4.29, p = .015$, partial $\eta^2 = .04$, and a non-significant interaction, $F(2, 201) = 0.16, p = .852$, partial $\eta^2 = .00$ such that men scored higher on the Dark Triad measure as a whole compared to women. Concerning the empathy measure, a two-way between subjects ANOVA showed a non-significant main effect of condition, $F(2, 201) = 1.13, p = .325$, partial $\eta^2 = .01$, a significant main effect of gender, $F(2, 201) = 10.19, p < .001$, partial $\eta^2 = .10$, and a non-significant interaction, $F(2, 201) = 1.95, p = .146$, partial $\eta^2 = .02$ such that men scored higher on the empathy measure as a whole compared to women.

The next series of 2 x 3 factorial ANOVAs examined the effects on each of the three personality traits that construct the Dark Triad in relation to music video condition and gender. Concerning the personality trait of Machiavellianism, a two-way between subjects ANOVA showed a non-significant main effect of condition, $F(2, 201) = 0.48, p = .627$, partial $\eta^2 = .01$, a non-significant main effect of gender, $F(2, 201) = 2.24, p = .109$, partial $\eta^2 = .02$, and a non-significant interaction, $F(2, 201) = 0.36, p = .709$, partial $\eta^2 = .00$. Concerning the personality trait of psychopathy, a two-way between subjects ANOVA showed a significant main effect of condition, $F(2, 201) = 5.67, p = .004$, partial $\eta^2 = .06$, a significant main effect of gender, $F(2, 201) = 7.90, p = .001$, partial $\eta^2 = .08$ and a non-significant interaction, $F(2, 201) = 0.91, p = .403$, partial $\eta^2 = .01$ such that participants who were in the object-based violence condition scored higher in psychopathy compared to participants in the person-
based violence condition and the no violence present condition; also males scored higher in terms of psychopathy compared to females. Concerning the personality trait of narcissism, a two-way between subjects ANOVA showed a non-significant main effect of condition, $F(2, 201) = 0.25, p = .777$, partial $\eta^2 = .00$, a non-significant main effect of gender, $F(2, 201) = 1.18, p = .310$, partial $\eta^2 = .01$, and a non-significant interaction, $F(2, 201) = 1.39, p = .252$, partial $\eta^2 = .01$.

The final series of 2 x 3 factorial ANOVAs examined the effects on each of the two types of empathy that constructed the used empathy measure in relation to the music video condition and gender. Concerning cognitive empathy, a two-way between subjects ANOVA showed a non-significant main effect of condition, $F(2, 201) = 0.96, p = .386$, partial $\eta^2 = .01$, a non-significant main effect of gender, $F(2, 201) = 2.38, p = .096$, partial $\eta^2 = .02$, and a significant interaction, $F(2, 201) = 3.15, p = .045$, partial $\eta^2 = .03$ such that the effects of music video condition changed depending on the sex of the participant. Men had higher scores on cognitive empathy when watching the object based violence music video compared to women whereas in the no violence present in the music video condition women scored higher in cognitive empathy compared to men. Men also scored higher in cognitive empathy in the person based violence condition compared to women. Finally, concerning affective empathy, a two-way between subjects ANOVA showed a non-significant main effect of condition, $F(2, 201) = 0.05, p = .950$, partial $\eta^2 = .00$, a significant main effect of gender, $F(2, 201) = 18.79, p < .001$, partial $\eta^2 = .16$, and a non-significant interaction, $F(2, 201) = 0.18, p = .836$, partial $\eta^2 = .00$ such that males scored higher in terms of affective empathy when compared to females.

Several supplementary correlations were computed to assess the relationship between the individual dark triad personality traits and the two separate empathy types that were combined to form the original measure. The correlations were first differentiated by gender. A Pearson $r$ was computed between scores on the affective and cognitive empathy types and scores on each of the Dark Triad personality traits separately for women and for men. For the male population within
the sample, there were several significant correlations. Affective empathy positively correlated with cognitive empathy, $r(67) = .36, p = .003$, and negatively correlated with narcissism, $r(67) = -.40, p = .001$. In terms of the variable of cognitive empathy it positively correlated with psychopathy, $r(67) = .37, p = .002$. Machiavellianism was positively correlated with psychopathy, $r(67) = .50, p < .001$, and with narcissism, $r(67) = .60, p < .001$. For the female population within the sample, there were also several significant correlations among the Dark Triad personality traits and the two types of empathy. Affective empathy positively correlated with cognitive empathy, $r(133) = .17, p = .049$ and with psychopathy, $r(133) = .29, p = .001$. Psychopathy positively correlated with cognitive empathy, $r(133) = .30, p = .001$, Machiavellianism, $r(133) = .47, p < .001$, and narcissism, $r(133) = .45, p < .001$. Machiavellianism was also found to positively correlate with narcissism within females, $r(133) = .55, p < .001$. 
CHAPTER 5
DISCUSSION

The current research tested four hypotheses: 1) individuals exposed to person-based violence in music video portrayals will show more negative affect on a word search than those exposed to object-based violence or non-violent music videos; 2) individuals exposed to person-based violence and/or hostile music video portrayals will score lower on a measure of empathy; 3) individuals exposed to person-based violence and/or hostile music video portrayals will score higher on the Dark Triad measure, when compared to those exposed to object-based and/or non-violent music videos of the same genre; and 4) individuals who score higher on the Dark Triad measure will score lower on the empathy measure and vice versa showing a negative correlation. The first hypothesis was unsupported with no significant differences among the three types of music videos. There were no differences in the number of words found between the positively charged, negatively charged, or neutral charged words. A possible reason behind these insignificant differences could be a lack of familiarity with the word search task among participants. The mean age of the participants was 19.75 years with a standard deviation of 2.96. Participants of this generation may not have been familiar with a word search as a task. Another possible explanation relates to previous research that has indicated that an ineffective prime may take place for affect if participants are consciously aware, thereby observing the source of prime; this may result in the prime being diffuse and less likely to combine with a source of affect. (Murphy, Monahan, & Zajonc, 1995). The source of the effect being the music videos may have been very apparent to participants in the current methodology. Participants possibly were consciously aware of the music video priming for violence and may have corrected any perceived cognitions, rendering the attempted prime ineffective. The insignificant differences on
the word search between groups could be due to the affect prime being ineffective due to the longevity of exposure and the source being apparent to participants.

The second hypothesis of the current study was also unsupported with no significant differences between groups. Participants across three conditions were measured on their empathy levels after having viewed a music video with various levels of violence depicted. Participants in the person-based violence music video condition, in the object-based violence music video condition, and the no violence present in music video condition did not show any significant differences when it came to empathy levels. A possible explanation for these insignificant differences is a potential difference in dispositional susceptibility. Valkenburg and Peter (2013) defined dispositional susceptibility as “all person dimensions that predispose the selection of and responsiveness to media, including gender, temperament, personality, cognitions (e.g., scripts and schemata), values, attitudes, beliefs, motivations, and moods” (p. 226).

Dispositional susceptibility refers to responsiveness to media due to emotional, cognitive, and social development. Dispositional susceptibility may apply to the present study in explaining why participants did not show differences in levels of empathy after viewing the given music. Specifically, rates of exposure to violent media may explain the lack of effect on empathy. The mean age of participants in the current research was 19.75 years which indicates that they may have been exposed to violent media more compared to previous generations (Krahé, Möller, Huesmann, Kirwil, Felber, & Berger, 2011). A desensitization effect has been found in previous research which affects other related variables to the Dark Triad such as aggression. Krahé et al. (2011) found that neither habitual media violence exposure nor affective responses to violent media were significantly related to aggression. An additional explanation for the insignificant differences between groups in terms of empathy could again be related to their college-student
status. As previously stated in research, it has been found that younger adults exhibit greater awareness of primed information and are more likely to correct for its perceived influence especially when distinctive contextual cues are present regarding the source of the primes (Hess, McGee, Woodburn, & Bolstad, 1998). Being that the music videos were an apparent source of the affective priming, participants could have become aware of the intended primed information for the Dark Triad traits and empathy trait, thereby correcting for the perceived influence and rendering differences between groups insignificant.

The third hypothesis of the current study was not supported by the results. Participants across three conditions were measured on their Dark Triad traits including narcissism, Machiavellianism, and psychopathy after having viewed a music video with various levels of violence depicted. Participants in the person-based violence music video condition, in the object-based violence music video condition, and the absent violence present in music video condition did not show any significant differences in regards to levels of their personality traits including narcissism and Machiavellianism. The only personality trait that did show any significant differences across conditions was the trait of psychopathy. Further, Bonferroni comparisons on the psychopathy variable revealed that the person based violence music video condition was significantly different in comparison to the no violence present condition and the object based violence condition. Participants who were in either the no violence present condition or the object-based violence in music videos condition scored significantly higher in psychopathy compared to participants in the person-based violence condition. This result goes in the opposite direction of the original hypothesis. It was predicted that those in the person-based violence condition would score higher on the Dark Triad measure compared to those in the object-based violence condition and the no violence present condition. Previous research has
shown that young adults and similar populations may demonstrate even greater priming effects after viewing physical media depictions compared to older adults thereby influencing psychopathy after viewing aggressive media (Coyne, Linder, Nelson, & Gentile, 2012). The current findings go against previous research. Possible explanations for the given results include research previously mentioned, specifically being consciously aware of the source of the information (Murphy, Monahan, & Zajonc, 1995) and the younger generation’s sense of awareness of primed information (Hess, McGee, Woodburn, & Bolstad, 1998); however, to the knowledge of this researcher, no previous research has examined whether violent media such as violent music videos can have the opposite effect on participants in reducing levels of violent personality traits such as those on the Dark Triad. Further research is needed in order to confirm whether Dark Triad traits such as psychopathy can be lowered with the use of violent media. If this finding is reliable, it may provide ways of developing empathy or protective factors against violence.

The fourth hypothesis of the current study was not supported by the obtained results. Participants across three conditions were measured on their Dark Triad traits and their empathy levels. A correlation was computed between Dark Triad traits and empathy levels after having watched a varying music video with some type of violence present. Interestingly, there was a moderate positive correlation between Dark Triad personality traits and empathy levels which means that the more a participant possessed the Dark Triad personality traits the higher the empathy levels. This correlation was found to be in the opposite direction of the original hypothesis stating individuals who score higher on the Dark Triad measure would score lower on the empathy measure and vice versa showing a negative correlation. Instead, a moderate positive correlation was found, going against previous research (Jonason & Krause, 2013; Wai &
Tiliopoulos, 2012; Ali et al., 2009; Austin et al., 2007; Watson & Morris, 1991; Baskin-Sommers et al., 2014). The effect size for the correlation analysis was .05 which means that only five percent of the variance was explained. It is a possibility that the sample size was so large ($N = 201$) that a significant correlation was found even though it was not strong. The sample size was intended to be a total 179 participants, based on a power analysis using the statistical tool G*Power (Bruin, 2006). The sample size totaled a number of 201 participants. Vachon, Lynam, and Johnson (2014) also offer a possible reasoning behind this moderate correlation. The authors recently found through a meta-analysis that empathy and aggression are weakly correlated due to a variety of explanations offered. Vachon, Lynam, and Johnson (2014) state that a weak correlation can be taking place between aggression and empathy for two reasons: 1) there is a relationship between aggression and empathy but it is a very weak relationship or 2) the methods we use to assess for empathy are not appropriately assessing for this trait. The authors explain that this relationship between empathy and aggression could be much weaker than previously thought due to our perceived role of understanding others’ emotions in inhibiting aggressive behavior. However the authors explore the cause by stating, “items that ask about the simple detection or experience of others’ emotions may be too remote from behavior to detect it” (Vachon, Lynam, & Johnson, 2014, p. 766). Due to the strong relationship between aggression and the Dark Triad traits, it is logical to assume the same effect may have taken place in the current research.

To understand the results of the current study, namely the lowering of psychopathy and the non-significant differences between groups in terms of empathy, contrasting effects of priming must be mentioned. Shrum, Wyer, and O’Guinn (1998) stated that a contrasting effect may take place when an effort to prime takes place if judgments are in a direction opposite of the
attempted prime. In the current study it was intended that the music video would serve as a prime for participants to increase their Dark Triad personality traits, but the results did not support such effects. It is possible that due to the context of the music video conditions, that a participant would be able to partial out this contextual influence, but over adjust in this process thereby resulting in a contrast effect of priming (Meyers-Levy & Tybout, 1997).

Supplementary analyses revealed that there was a main effect of gender on scores of the Dark Triad personality trait measure as a whole and the empathy measure as a whole, and more specifically on the personality trait of psychopathy and affective empathy. Men were found to score higher on each of the variables previously listed. A different pattern of correlations was found across genders. In men and women, cognitive empathy was positively correlated with psychopathy while specifically in men, affective empathy was negatively correlated with narcissism. Specifically in women, significant correlations were found between affective empathy and psychopathy as well. These findings go against previous research stating men would show low levels of empathy when associated with high levels of psychopathy and women would show low levels of empathy when associated with high levels of narcissism (Ali et al., 2009; Jonason et al., 2013; Wai & Tiliopoulos, 2012). Other research has indicated that men and women differ in terms of cognitive and affective empathy (Eisenberg & Lennon, 1983; Jonason & Krause, 2013; Toussaint & Webb, 2005), specifically that women possess more empathic tendencies across the affective and cognitive types compared to men. After supplementary analyses, it was found that men scored higher in the affective and cognitive empathy scales of the chosen measure which was contrary to past research mentioned. It is interesting that this difference occurred only after participants viewed violence depicted in music videos. Due to the current findings in comparison to past research, additional research is needed to further
understand the relationship between the Dark Triad personality traits, empathy, and their association to gender.

The current research and findings contribute to the literature for several reasons. The influence and priming of media, specifically of music videos, have never been examined through the scope of the Dark Triad personality traits. Although empathy has been examined for watching media such as films (Hoeckner, Wyatt, Decety, & Nusbaum, 2011) the variable had never been previously examined after viewing violence in music videos. To the knowledge of this researcher, no research has been conducted comparing the effects of music videos to film clips of popular films in terms of effective priming. Although both types of media have been supported as effective priming methods (Timmerman, Allen, Jorgensen, Herret-Skjellum, Kramer, & Ryan, 2008; Anderson, 1997), no research has been done comparing which medium is a more effective method in terms of priming affect or temporarily affecting personality traits. Future research must be done comparing the two methods to further improve efficient methods of priming. The current study was motivated in part by the media’s attention to violence in music and music videos and its possible contribution to aggressive behavior in viewers. This research adds to the literature concerning variables that may or may not influence aggression in young individuals who express their aggression in a harmful manner upon others and themselves. Observing that psychopathy levels are low when watching person-based violence in music videos compared to music videos with object-based violence or no violence present is of importance in motivating further research into media’s priming effects on individuals for personality traits such as the Dark Triad.

A remaining issue is that the current research does not answer the question of whether such violent media can influence an individual to commit an act such as a mass shooting. In the
present research we did not assess for the probable future risk of engaging in harmful behavior toward oneself or others. Additionally, the current study did not investigate whether the Dark Triad can be used to predict for future acts of mass shootings. These limitations of the current methods leave additional unanswered questions and suggest future research to be conducted.

Another issue from the current findings is that the correlation between the Dark Triad measure and empathy measure was in the opposite direction than predicted based on previous research. Similarly, when comparing the Dark Triad traits across the three music video conditions psychopathy was found to be significantly different across conditions, but in the opposite direction of the predicted differences. The current findings call into question the methodology utilized within the study specifically whether the priming method of music videos was utilized properly for the intended purpose. Another possibility is that the content of the music videos was not appropriate to prime for temporary personality effects, especially for the traits included in the Dark Triad.

The present research does suggest that, at least in this sampled population, the levels of psychopathy were affected after viewing person-based violent music videos. It is the opinion of this researcher that future studies should examine the Dark Triad as a variable but as a predictor of what participants prefer in terms of violence based music videos. The Dark Triad measure could be utilized to predict whether those who have high levels of those personality traits seek out music videos with violent depictions.

This particular type of research should be continued in effort to add to the answer as to how and why such acts of mass casualties occur and the influence behind them. The limitations of this research can be further addressed in future research in a variety of fashions. The selection of music videos for the content of priming can be improved by conducting a pilot study in which
participants agree on the level of violence depicted in the music video content. Additionally, the measures themselves can be altered or replaced to improve further research on these variables. A more effective measure of affect in the case of priming for affect could be a word-completion task rather than word search, as the word search task may not be understood by participants or may have exposed the source of the prime, causing the prime to be less effective. The measure of the Dark Triad personality traits can be improved upon as well by using lengthened measures addressing each trait independently of one another rather combined into one questionnaire such as the 40-item NPI, a validated and widely used measure for narcissism (Raskin & Terry, 1988), the 31-item Self-Report Psychopathy Scale–III for psychopathy (Paulhus, Hemphill, & Hare, in press), and the 20-item Mach IV for Machiavellianism (Christie & Geis, 1970). Finally, the population of the current research may have not been the ideal population for such research. A sample containing more variability in age that is more representative of the general population should be utilized rather than the closely condensed age range that was utilized for the current study. The limitations of the present study can be addressed, thereby producing more informative findings.

The current research contributed an interesting finding to the previous research regarding the Dark Triad and empathy. Although previous research has indicated that those high in Dark Triad traits will have lower empathy levels as a result, the current research found the opposite to a marginal degree. These results lead to the question of whether empathy plays as much of a role in aggression as previously thought. The current study opens a new avenue of research to be explored regarding empathy and the Dark Triad and roles of each trait in influencing the other traits. The current research also tested the hypothesis that the Dark Triad personality traits would be elevated after being exposed to violence based music videos and again the opposite effect was
found. When it came to the most antisocial personality trait of the Dark Triad, psychopathy was lowered for those who had viewed person-based violence in a music video compared to object-based violence or no violence being present. This finding raises an issue concerning effective priming in the types of populations utilized in the current study and whether an additional variable of protective factors play a role when viewing negative or violent media. As a result of the findings of the current research, new avenues of research have been opened for future research to pursue and new discussion has been introduced for investigating the effects of violent media.
References


Appendix A

People differ in the way they feel in different situations. Below you are presented with a number of characteristics that may or may not apply to you. Read each characteristic and indicate how much you agree or disagree with the item by ticking the appropriate box. Answer quickly and honestly.

Cognitive and Affective Empathy Measure (Reiners et al., 2011)

I sometimes find it difficult to see things from the ‘other guy’s’ point of view

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<td>Strongly Agree</td>
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I am usually objective when I watch a film or play, and I don’t often get completely caught up in it.

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I try to look at everybody’s side of a disagreement before I make a decision.

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I sometimes try to understand my friends better by imagining how things look from their perspective.

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When I am upset at someone, I usually try to ‘put myself in his shoes’ for a while.

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<td>Strongly Agree</td>
<td>Slightly Agree</td>
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Before criticizing somebody, I try to imagine how I would feel if I was in their place.

1. Strongly Agree
2. Slightly Agree
3. Slightly Disagree
4. Strongly Disagree

I often get emotionally involved with my friends’ problems.

1. Strongly Agree
2. Slightly Agree
3. Slightly Disagree
4. Strongly Disagree

I am inclined to get nervous when others around me seem to be nervous.

1. Strongly Agree
2. Slightly Agree
3. Slightly Disagree
4. Strongly Disagree

People I am with have a strong influence on my mood.

1. Strongly Agree
2. Slightly Agree
3. Slightly Disagree
4. Strongly Disagree

It affects me very much when one of my friends seems upset.

1. Strongly Agree
2. Slightly Agree
3. Slightly Disagree
4. Strongly Disagree

I often get deeply involved with the feelings of a character in a film, play or novel.

1. Strongly Agree
2. Slightly Agree
3. Slightly Disagree
4. Strongly Disagree

I get very upset when I see someone cry.

1. Strongly Agree
2. Slightly Agree
3. Slightly Disagree
4. Strongly Disagree
I am happy when I am with a cheerful group and sad when the others are glum.

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<td>Strongly Agree</td>
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It worries me when others are worrying and panicky.

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<td>Strongly Agree</td>
<td>Slightly Agree</td>
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I can easily tell if someone else wants to enter a conversation.

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<td>Strongly Agree</td>
<td>Slightly Agree</td>
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I can pick up quickly if someone says one thing but means another.

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<td>Strongly Agree</td>
<td>Slightly Agree</td>
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<td>Strongly Disagree</td>
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It is hard for me to see why some things upset people so much.

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<td>Strongly Agree</td>
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I find it easy to put myself in somebody else's shoes.

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<td>Strongly Agree</td>
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I am good at predicting how someone will feel.

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<td>Strongly Agree</td>
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I am quick to spot when someone in a group is feeling awkward or uncomfortable.

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Other people tell me I am good at understanding how they are feeling and what they are thinking.

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I can easily tell if someone else is interested or bored with what I am saying.

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Friends talk to me about their problems as they say that I am very understanding.

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I can sense if I am intruding, even if the other person does not tell me.

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I can easily work out what another person might want to talk about.

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I can tell if someone is masking their true emotion.

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I am good at predicting what someone will do.

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I can usually appreciate the other person's viewpoint, even if I do not agree with it.

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I usually stay emotionally detached when watching a film.

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I always try to consider the other fellow's feelings before I do something.

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Before I do something I try to consider how my friends will react to it.

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Appendix B

Please answer the following questions to the degree of pertaining to your personality. All answers will remain confidential, so please answer truthfully and to the best of your ability.

The Dirty Dozen Measure (Jonason & Webster, 2010)

I tend to manipulate others to get my way.

1 2 3 4 5 6 7 8 9
Disagree Strongly Disagree Neutral Agree Strongly

I have used deceit or lied to get my way.

1 2 3 4 5 6 7 8 9
Disagree Strongly Disagree Neutral Agree Strongly

I have use flattery to get my way.

1 2 3 4 5 6 7 8 9
Disagree Strongly Disagree Neutral Agree Strongly

I tend to exploit others towards my own end.

1 2 3 4 5 6 7 8 9
Disagree Strongly Disagree Neutral Agree Strongly

I tend to lack remorse.

1 2 3 4 5 6 7 8 9
Disagree Strongly Disagree Neutral Agree Strongly

I tend to be unconcerned with the morality of my actions.

1 2 3 4 5 6 7 8 9
Disagree Strongly Disagree Neutral Agree Strongly
I tend to be callous or insensitive.

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I tend to be cynical.

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I tend to want others to admire me.

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I tend to want others to pay attention to me.

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I tend to seek prestige or status.

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I tend to expect special favors from others.

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Appendix C

Word Search

Find only the first ten words you see and only ten words.

LYFPGLJDNWEOSLW
XEOGLUUOSOVNRAW
FDTSJSENHTOIDIUR
EAUTIYAMRALTZGA
CBIAEPLSBJBBAHO
NCBRPROQUDKGDTB
EDNYORCQERXLHQS
FFEPESAAPIEOAPC
PGIDATTACKPBJHE
NLRPWHIPSESEANC
XUFKOTEIRWOEV
MSTANDNPVBZHEQC
EFINKNCACMPLEDY
YORTSEDRSIGNUFT
LZHSGGLWDJNQWEG
Appendix D

General Demographics

1. Sex: Male  Female  Other
2. Age: ____ years
3. School Status: Freshman  Sophomore  Junior  Senior  Graduate  N/A
4. How many hours would you say you spend watching music videos in a week? _____ hours
5. Which musical genre do you prefer between these three listed:
   Rock       Rap       Country

   Please write your favorite music genre if not the three listed above: ______________
Appendix E

CONSENT FORM

Identification of Researchers: This research is being conducted by Jonathan Nauser, a graduate student, under the supervision of Dr. David Kreiner, a professor. We are with the Psychology Department at University of Central Missouri.

Purpose of the Study: The purpose of this study is to demonstrate music videos having a temporary effect on personality.

Request for Participation: We are inviting you to participate in a study on temporary personality and empathy effects from watching violent music videos. It is up to you whether you would like to participate. If you decide not to participate, you will not be penalized in any way. You can also decide to stop at any time without penalty. If you do not wish to answer any of the questions, you may simply skip them. You may withdraw your data at the end of the session. If you wish to do this, please tell us before you turn in your materials. Once you turn in the materials, we will not know which survey or test is yours.

Exclusions: You must be at least 18 years of age to participate in this study.

Description of Research Method: This study involves watching a heavy metal music video and completing a set of questionnaires and a word search. The questionnaires will ask you about the traits of your personality as well the type and frequency with how you feel empathy. The questionnaires look at the following traits: narcissism, psychopathy, Machiavellianism, and empathy. This study will take approximately 20 minutes to finish. After you finish, I will explain the purpose of the study in more detail. You will also have a chance to ask questions. Please note that we cannot give you your individual results because the data are confidential.

Privacy: All of the information we collect will be confidential. We will not record your name, student number, or any information that could be used to identify you.

Explanation of Risks: The risks associated with participating in this study are similar to the risks of everyday life. Any medical treatments provided if an injury occurs will be at the expense of the participant.

Explanation of Benefits: You will benefit from participating in this study by getting firsthand experience in psychological research. You may also enjoy completing the questionnaires.

Questions: If you have any questions about this study, please contact me at jwn32390@ucmo.edu or my advisor Dr. Kreiner. He can be reached at kreiner@ucmo.edu or at (660) 543-4074. If you have any questions about your rights as a research participant, please contact the Human Subjects Protection Program at (660) 543-4185.

If you would like to participate, please sign a copy of this letter and return it to me. The other copy is for you to keep.
I have read this letter and agree to participate.

Signature: __________________________

Date: __________________________