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Schadenfreude, the Dark Triad, and the Effect of Music on Emotion

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in Psychology.

By

Robin Lane

Under the mentorship of Dr. Ty W. Boyer

ABSTRACT

Schadenfreude is a humorous response at the misfortune of others and has been suggested to be an empathic defense mechanism. Previous research indicates that individuals who tend to exhibit the Dark Triad personality traits narcissism, psychopathy, and Machiavellianism, experience higher levels of Schadenfreude. Additional studies suggest that music modulates neural activity associated with experiencing humor. In the present study we ask, do music and dark personality traits influence Schadenfreude? Participants viewed a series of brief, randomly intermixed physical misfortune and neutral videos (e.g., a person falling off a treadmill or running on a treadmill, respectively), with either an upbeat or downbeat musical score. Ratings of the video's humor, excitement, and disturbance were recorded after each video. Participants also completed industry standard self-report measures of the Dark Triad traits. Analyses of covariance of data collected with an university undergraduate sample (N = 120) indicated that participants rated the Schadenfreude videos as more humorous than the neutral videos, that those in the upbeat music condition rated the Schadenfreude stimuli as more and the neutral stimuli as less humorous, and video humor ratings significantly positively varied with psychopathy. Thus, the study tentatively supports the suggestion of Schadenfreude varying with music and personality differences.

Key Words: Schadenfreude, Dark Triad personality traits, music, emotion

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Schadenfreude, the Dark Triad, and the Effect of Music on Emotion

Humor is a tool that is used by many people to deal with stress in life. It has been called a defense mechanism. Humor fuels an entire section of the entertainment industry. Many are asking an important questions: What is it that makes us laugh? Why do some people laugh at one thing and others laugh at another? There are four humor styles that are commonly used universally: aggressive, self-defeating, affiliative, and self-enhancing (Veselka, Scherner, Martin, & Vernon, 2010). The aggressive humor style uses sarcasm and put downs to hurt or manipulate others. The self-defeating humor style uses put downs about themselves to humor others. The affiliative humor style uses joking and banter in order to forge interpersonal bonds. The self-enhancing humor style uses humor to look at the bright side of situations as a coping mechanism. Social-cognitive psychological theory suggests these humor styles allow individuals to put others down and build themselves up. By putting others down it is easier to protect one's self (Veselka et al, 2010).

Schadenfreude is defined as feelings of happiness at someone else's misfortune (Feather & Sherman, 2002). This is in line with the Superiority theory of humor, which relates to Schadenfreude (Hurley, Dennet, & Adams, 2011). Here it is believed that humor is used as a way to protect oneself and maintain self-esteem. This theory best explains Schadenfreude and why people find humor in the misfortune of others. This is often show-cased in slap stick comedy, where performers intentionally hurt themselves or put themselves in harm's way, for the amusement of others. It is also shown through television programs such as America's Funniest Home Videos and Ridiculousness. Programs like this show-case home videos of people falling, getting hurt, or being

pranked. People experience pleasure, or laughter, when they witness other people being injured or going through misfortunes.

However, Schadenfreude is not just finding joy in another's sorrow. It is a part of how people make decisions in everyday life and how they view themselves in relation to others (Kramer, Yucel-Aybat & Lau-Gesk, 2010). Upon witnessing someone fall off a trampoline, many will think that they are intelligent enough to not make a similar mistake. Schadenfreude is also linked with several different emotions that help to define how it is used in everyday functioning (Smith, et al, 1996; Feather & Sherman, 2002; Feather & Nairn, 2005). These emotions are envy, resentment and sympathy. These emotions are all similar in that they are experienced as a reaction to another person and often something that is occurring to that other person. Envy is a feeling of discontented or resentful longing aroused by someone else's possessions, qualities, or luck (Smith, 1991). A person often feels inferior to another and desires that person's position or attributes. Envy is not an emotion that is often expressed publicly; it is kept a secret for social reasons. This is because it is not seen as socially appropriate behavior to display feelings of envy in front of others. Envy has been labeled as a negative emotion (Smith et al, 1996). Like envy, Schadenfreude is often seen as a negative reaction to have to a misfortune and is not seen as appropriate in certain situations. Resentment is bitter indignation at having been treated unfairly and is often elicited by a reward of some sort that is given to another person, especially if that reward had been perceived to be meant for the one feeling resentment. Sympathy is feeling pity and sorrow for someone and their misfortune. Schadenfreude is like these emotions in that it is a reaction to another person and what they are going through.

To break down the meaning of Schadenfreude, it is when a person witnesses a negative occurrence to another person and then finds pleasure in it. Schadenfreude can be highlighted by seeing a person who is envied experience a perceived deserved misfortune (Smith et al, 1996). The effect of envy is so powerful that misfortunes to those we envy oftentimes produce Schadenfreude, even when the misfortune appears to have been undeserved (Brigham, Kelso, Jackson, & Smith, 1997). Additional research that was better able to dissociate the contributions of envy and resentment suggested that feelings of resentment are actually an even stronger predictor of Schadenfreude (Feather & Sherman, 2002). So when they were separated, it was found that envy is not a predictor of Schadenfreude, but that as more resentment is felt the more Schadenfreude is experienced (Feather & Nairn, 2005).

Schadenfreude is also used in decision making and how individuals evaluate others around them. It is also a reaction to when circumstances are not fair and it is used as information when trying to determine a choice to make (Kramer et al, 2010). Seeing someone else suffer a misfortune causes one to be more aware of safe choices. For example, if someone witnesses someone else being given a speeding ticket, they will be more conscious of safe choices they can make, like going the speed limit and using turn signals. These choices are safe in comparison to the choice to speed. Schadenfreude also has some influence when looking for a mate (Colyn & Gordon, 2013). It is experienced when a competitor suffers a misfortune that decreases his or her mate value. This is explained by an increase in one's mate value when a competitor loses value. It is seen as a positive event because the chances of getting a mate have been raised.

It is presently unclear whether Schadenfreude is a universal reaction, or, alternatively, whether there is variability in how humorous one individual might find another's misfortune. This leads to the question of, are some personality traits associated with more or less Schadenfreude? Certain personality traits, like those in the Dark Triad, are more prone to use humor in interpersonal communications (Martin, Lastuk, Jeffrey, Vernon, & Veselka, 2012). The Superiority theory of humor encompasses the humor styles that are commonly used by high scorers of the dark personality traits. This theory suggests that we use humor to feel better about ourselves. Individuals who are more likely to express the Dark Triad traits are more prone to using the negative humor styles. Individuals that score higher on psychopathy and Machiavellianism are more likely to employ the aggressive and self-defeating humor styles (Veselka et al, 2010). The Dark Triad personality traits are Narcissism, Machiavellianism, and psychopathy (Paulhus and Williams, 2002). These are generally seen as maladaptive and antisocial, but they do have adaptive qualities. Schadenfreude can be experienced by anyone, but it seems that some people experience it at higher levels and more frequently than others. Narcissism is defined as being overly interested in oneself and how things affect one's person. It is marked by grandiosity, entitlement, dominance, and superiority (Corry, Merritt, Mrug & Pamp, 2008). This trait of personality is seen by others to be socially aversive. For a narcissist, everything revolves around them and personally affects them. Psychopathy is viewed as the most malevolent of the group and is identified by high levels of thrill-seeking, impulsivity, and low levels of empathy (Lilienfeld & Andrews, 1996). Machiavellianism is defined by being cynical, unprincipled, a belief that interpersonal manipulation is the key for life success, and behaving by these standards (Jones &

Paulhus, 2009). These individuals believe that in order to be successful in life they have to manipulate others before others manipulate them. There is also relevance of this theory of humor to the humor styles that are commonly used by high scorers of the dark personality traits. These individuals are more prone to using the negative humor styles. Individuals that score higher on psychopathy and Machiavellianism are more likely to employ the aggressive and self-defeating humor styles (Veselka et al, 2010).

One study used self-reporting surveys to examine the associations between the Dark Triad traits, sensational interests and expressed Schadenfreude. Higher scores for the Dark Triad traits were associated with higher levels of both Schadenfreude and sensational interests, with psychopathy scoring higher with both (James, Kavanagh, Jonason, Chonody, & Scrutton, 2014). These findings suggest that dark clustered personalities participate in more antisocial behaviors; they then experience higher levels of satisfaction from witnessing misfortunes of others. A positive relationship is also found between Dark Triad traits and self-reported levels of Schadenfreude and objective smile intensity (Porter, Bhanwer, Woodworth, & Black, 2014).

When behaving in interpersonal settings, individuals who score high in measures of the Dark Triad traits use humor as a strategy to communicate with others. Psychopaths and Machiavellians prefer to use more aggressive humor styles and narcissists use affiliative humor more so (Martin et al, 2012). Overwhelmingly, these personalities are distinguished and known for their aversive social set. However it is shown that all three have adaptive and maladaptive traits (Furnham, Richards, & Paulhus, 2013). The Dark Triad traits are linked to low levels of empathy in both men and women (Jonason, Lyons,

Bethell, & Ross, 2013). Schadenfreude is an emotional reaction that low levels of empathy precipitate.

Schadenfreude is often used to build self-esteem (van Dijk, van Koningsbruggen, Ouwerkerk & Wesseling, 2011). Individuals who are high in the Dark Triad traits are focused on achieving their own goals. They are more likely to experience joy at another's misfortune, because it allows them to further advance their goals. When a person with low self-esteem encounters a high achiever, the level of threat to self is high. Schadenfreude is more likely to occur in these situations and is not common in those with high self-esteem (van Dijk et al, 2011). However Schadenfreude may be used as a tool to enhance self-image further. When the opportunity to self-affirm is given the level of Schadenfreude is decreased. Here the opportunity is given to enhance self-view and the need for Schadenfreude is not present because there is no threat to self.

Higher scorers on Dark Triad traits were also more likely to report more Schadenfreude in their everyday lives and were more likely to seek out videos that elicit Schadenfreude. It is important to look at other factors that influence emotion, because Schadenfreude is an emotional reaction that is in response to another's misfortune. Past studies have used actual events in participants' lives or have had stimuli that were read or were photographs. They did not account for the audio tracks of events. Sound, and in particular music, can have a great influence on how people interpret and experience things. Most people are exposed to music everyday whether it is voluntary or involuntary (Weisgerber, Bayot, Constant, & Vermeulen, 2013). This can be music that is being listened to through ear phones (voluntary) or music that is playing in a restaurant (involuntary). Music can be a large factor in the experiences of emotion because musical

frames use the same techniques to convey emotion that occur naturally in speech patterns. Music and speech patterns are very similar when it comes to the techniques that are used to convey emotions: rhythm, pitch, melody, tempo, and volume are all aspects that convey emotion in both speech and a composition of music (Weisgerber et al, 2013). Previous research has shown that music can elicit positive or negative moods in individuals. This is because music has been shown to modulate activity in brain structures that are important to emotion (Koelsch, 2014). As the structures of the brain that modulate emotion are studied more and music's effect on these parts of the brain is better understood, the field of music therapy is growing and expanding. Music therapy is currently being used as treatment for different psychological disorders (Koelsch, 2014).

Music is similar to speech, both in terms of following systematic structural rules and conveyance of emotion. Music is capable of moving us to experience emotions that range from somber sentimentality to joyous elation. Music may also play a factor in how, and to what degree, Schadenfreude is experienced. Furthermore, the effect of music on emotion may vary with personality. Individuals who score higher on the Dark Triad inventories are low in empathy and are known for being manipulative and impulsive (Jones & Paulhus, 2011). Music may be a factor that can influence how high scorers normally interpret situations. Because music activates core regions in the brain to induce emotion, it may be that as music is activating these regions it will have a different effect on dark personalities. This effect may be more or less than low scorers. This has currently not been studied and results may allow for advances in music therapy.

How does the format in which witnessing a misfortune occur influence these feelings of Schadenfreude? Does the audio track that is played on a video influence the

reaction that is experienced from the video? Does the type of music influence the emotion that is elicited from a video? The aim of this study is to build upon previous research by examining whether there are differences in Schadenfreude expressions caused by coupling different audio tracks with videos of others experiencing physical misfortunes, and whether this varies with responses to measures of dark personality traits.

Past research has shown that there is a link between Schadenfreude and the dark personalities and that music and auditory stimuli can have an effect on emotions and how emotions are queued (Porter et al, 2014; Koelsch, 2014). Thus, the current research, is expanding on past research by altering audio tracks on video stimulus. The use of video stimulus is also altered from where past studies have only used pictures or recollections of past events in participants' lives. By adding in the stimulus of the audio track, we investigated how audio tracks affect Schadenfreude. We hypothesized that the different levels of audio tracks will influence the levels of Schadenfreude experienced by participants. This is because music has been shown to influence other emotions in similar ways. We also hypothesized that participants with higher scores for dark personalities may be influenced to a different degree by the music stimulus from those scoring lower.

By altering the audio tracks we hope to create different representations of situations where individuals are suffering a misfortune and where participants may be exposed to that stimuli which influences Schadenfreude. It is important to understand how emotional reactions like Schadenfreude are influenced by different factors like music and personality characteristics, because this information can influence how the field of emotional computation is looked at in reference to environmental factors in life. The research aims to answer the following questions about Schadenfreude: Do different

types of audio tracks influence the level of Schadenfreude experienced? Do individuals with higher scores for dark personalities tend to experience higher levels of Schadenfreude than those who score lower?

Method

Participants

Participants were 120 students (65 female, 55 male), between the ages of 18-51 years of age ($M_{age} = 19.83$ years, $SD = 3.45$), recruited from undergraduate psychology courses at Georgia Southern University. Participants received course credit for participation.

Stimuli

This study required a desktop computer with a LCD computer screen. There was a webcam mounted on the screen. Video stimuli of two types were used in the experiment. Physical misfortune stimuli were videos that depicted individuals experiencing misfortunes of different types (e.g., falling while running on a treadmill, having an accident on a trampoline, one partner dropping another in doubles figure skating, or a major error in a soccer game). The neutral stimuli were videos that depicted the same activities as the physical misfortune (i.e., running on a treadmill) where no misfortune occurred. There were 56 videos in total that were all twelve seconds long. All videos were muted. Two audio tracks of approximately 4 and half minutes long each were played during the stimulus video viewing portion of the experiment. They were looped as necessary if participants took longer than the audio track length. One was an upbeat audio track and one was a downbeat audio track. Bach “Brandenburger Concerto No. 2” was

the upbeat and Beethoven “Piano Sonata No. 14” was the downbeat track. These tracks were selected because they have been shown to induce positive and negative mood respectively (Mayer, Gayle, Meehan, & Haarman, 1990; Trambakolous, 1997). During this portion, participants wore noise cancelling head phones to control audio stimuli volume levels for all participants. The Machiavellianism-IV scale (MACH-IV; Christie & Geis, 1970), which measures manipulative personality; the Narcissistic Personality Inventory-40 (Raskin & Terry, 1988), which measures arrogance; the Self-Report Psychopathy (Paulhus, Neumann, & Hare, in press), which measures deviant personality tendencies; and a brief demographics survey were used. See Appendix A for inventories.

Procedure

Participants were randomly assigned to one of two groups. The first group was assigned to a downbeat music condition and the second to an upbeat music condition. The music selection played during the entirety of the first portion of the experiment.

All groups were shown the same videos and were given the same questionnaires. Videos were randomly ordered for each participant. Each video was played and directly followed by three questions asking participants to rate on a scale of 1 to 5 on how humorous, disturbing, and exciting they found the video to be. As soon as the last question was answered on the last video the audio stimulus stopped. Participants were recorded via a web camera that was mounted on the computer monitor. These videos were saved to a password protected laboratory computer hard drive with the participant’s arbitrarily assigned multi-digit number. These videos were viewed and coded for the quantity of humorous reactions (i.e., frequency of smiling while viewing the stimulus videos).

Participants were then given the personality trait inventories and the demographics survey, all of which were in an electronic format on the computer.

Results

The primary analyses were a series of 2 x 2 mixed model analyses of covariance (ANCOVA) that examined effects of video type as a repeated measure (differences between the physical misfortune and neutral stimulus videos) and music condition as a between-groups factor (upbeat music and downbeat music), with aggregate responses on the Dark Triad personality measures entered as continuous covariates. Three separate analyses were conducted with each of the ratings measures, humor, excitement, and disturbance.

The first ANCOVA used humor ratings as the dependent measure. This analysis revealed a marginally statistically significant main effect for video type, $F(1, 115) = 3.72$, $p = .056$, $\eta_p^2 = .03$, with participants rating the physical misfortune videos as more humorous ($M = 3.2$) than the neutral videos ($M = 1.9$). The main effect of music condition was non-significant, $F(1, 115) = .34$, $p = .56$, $\eta_p^2 = .003$; however, there was a significant interaction between video type and music condition, $F(1, 115) = 5.93$, $p = .016$, $\eta_p^2 = .049$. As Figure 1 illustrates, participants in the upbeat music condition rated the physical misfortune videos as more humorous ($M = 3.2$) than those in the downbeat music condition ($M = 3.1$), and rated the neutral videos as less humorous ($M = 1.8$) than those in the downbeat music condition ($M = 1.9$). The analysis revealed that psychopathy was a marginally significant positively related covariate of humor ratings, $F(1, 115) = 3.58$, $p = .061$, $\eta_p^2 = .03$ (see Figure 2). All other effects and interactions were non-significant.

The second ANCOVA used excitement ratings as the dependent measure. This analysis revealed a statistically significant main effect for video type, $F(1, 115) = 7.93$, $p = .006$, $\eta_p^2 = .07$, with participants rating the physical misfortune videos as more exciting ($M = 2.9$) than the neutral videos ($M = 2.1$). The main effect of music condition was non-significant, $F(1, 115) = .25$, $p = .62$, $\eta_p^2 = .002$. All other effects and interactions were non-significant.

The third ANCOVA used disturbance ratings as the dependent measure. This analysis revealed a statistically significant main effect for video type, $F(1, 115) = 15.41$, $p < .001$, $\eta_p^2 = .12$, with participants rating the physical misfortune videos as more disturbing ($M = 2.1$) than the neutral videos ($M = 1.7$). The main effect of music condition was non-significant, $F(1, 115) = .85$, $p = .36$, $\eta_p^2 = .007$. All other effects and interactions were non-significant.

Positive affect (smiling) was recorded and coded in the study. An ANCOVA with music condition entered as a between-groups factor and responses on the Dark Triad personality measures entered as continuous covariates was conducted to examine the variability in the frequency with which participants displayed positive affect. The analysis revealed no significant effect of music condition, nor any significant relations with the personality measures, all $F(1, 115) \leq .916$, all $p \geq .340$.

Discussion

As shown in the results of this study, participants rated physical misfortune videos as more humorous than neutral videos, indicating clear presence of Schadenfreude. This finding supports previous research that people did find humor in the misfortune of others

(Feather & Sherman, 2002). This has real world application in terms of the entertainment industry and interactions with other individuals in an environment. Research shows that individuals do find more humor in the misfortune of others. The entertainment industry capitalizes on this enjoyment of the misfortune of others. Many television programs and movies today portray someone being injured for the sake of a laugh from the audience. Daily interactions can be full of physical misfortunes of others. In these situations, is it appropriate to laugh? Or is it frowned upon to laugh before offering assistance to another individual? These answers may vary from culture to culture. Further research would be needed to fully examine the social acceptance of Schadenfreude.

An interaction was observed between the music condition and humor ratings for Schadenfreude and neutral videos. In this study, those in the upbeat condition rated the neutral videos as less humorous than those in the downbeat condition, and rated the physical misfortune videos as more humorous. This does support previous research that showed the music stimuli eliciting either positive or negative emotions (Mayer, Gayle, Meehan, & Haarman, 1990; Trambakolous, 1997). This interaction would benefit from more research to fully understand how music elicits emotions. Although, the effect of music on ratings of humor may have application in the field of music therapy. It is a growing field and is being incorporated in the treatment plans for different psychological disorders. As stated before, more research is necessary to determine the interaction between music and ratings of Schadenfreude. Results also showed no interaction between music condition and ratings of how exciting or disturbing participants found the videos. Past research has looked at happiness and sadness in relation to music's effects on

emotions. Further research would be beneficial to understanding how or if music affects the experience of all emotions.

We found partial support for the hypothesis that humor ratings would vary with Dark Triad traits. Previous research shows that the Dark Triad traits experience higher levels of Schadenfreude (James, Kavanagh, Jonason, Chonody, & Scrutton, 2014). The only trait that showed a positive correlation with humor scores was psychopathy. This personality trait is known as the most malevolent and for having no empathy for others (Jonason, Lyons, Bethell, & Ross, 2013). This can explain the higher humor scores for physical misfortune videos. This study assessed variability in psychopathic tendencies over a normally distributed range. A marker of this personality trait is no sense of morality, the sense of right versus wrong, because individuals who score higher for this trait do not have a sense of morality they see no problem with laughing at someone who has been injured or suffered a misfortune. High scorers for this trait also tend to employ the self-defeating and aggressive humor styles in their daily interactions with others (Martin et al, 2012). These humor styles use put downs and other negative phrasings to raise one's self up and bring others down. The use of these humor styles can help explain the relationship between this trait and higher scores of Schadenfreude. Interestingly, though there was a positive relation between psychopathy and video humor ratings, there were not corresponding relations between psychopathy and rates of outward expressions of positive affect. This raises the possibility that those who self-report as more psychopathic tend to be no more likely to exhibit a humorous reaction, which suggests that they may also be more capable of masking their humorous reactions which would be consistent with the malevolence associated with this trait. These were unexpected results

for this study because previous studies had evidence that higher scorers smiled more when exposed to stimuli (Porter et al, 2014). This lack of an effect, however, might be attributed to a lack of specificity in the measure of positive affect that we used; specifically, in order to avoid coder bias, we intentionally did not differentiate between expressions of positive affect during the physical misfortune versus neutral stimulus videos, which may have decreased our ability to detect a possible effect.

In this study, Schadenfreude was examined using video stimuli and not stories or pictures as past research had done and expanded on previous research with the Dark Triad traits and their relationship with Schadenfreude. Music was examined as a variable to how humorous someone might find something. This was built off previous research showing music eliciting positive and negative moods. It would be beneficial to further study the ability of music to make people laugh. It is very important to understand how factors in our environment affect the way it is interpreted.

Conclusion

This study found that as scores increase for psychopathy, higher levels of Schadenfreude are reported. Understanding how personality traits contribute is vital in expanding the knowledge base for Schadenfreude. It is important to understand Schadenfreude because of its basis in many areas of life; from personal interactions to how we make decisions. Further research should be done with other personality traits and types of stimulus videos to gain a wider and more complete understanding of Schadenfreude. Another interesting research point would be how Schadenfreude is expressed in different cultures around the world. Do some fully accept this phenomena of

happiness at the misfortune of others? Or are there cultures where this would be frowned upon and seen as deviant to feel?

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Appendix A

Self-report Surveys

Note: All surveys appear as they typically do in their paper-and-pencil counterparts; however, each will be presented in a computerized framework, possibly with a subtly different response mechanism (e.g., numbers on a keypad instead of letters).

Demographics Survey

Age: _____

Gender: Male, Female

Class Standing: Freshman, Sophomore, Junior, Senior

Ethnicity: Native American, European American, African American, Asian American, Latin American, Other

Narcissistic Personality Inventory – 40 item survey (NPI-40)

Read each pair of statements and then choose the one that is closer to your own feelings and beliefs. Indicate your answer by circling the letter "A" or "B" to the left of each item. Please do not skip any items.

1. A I have a natural talent for influencing people.
 B I am not good at influencing people.

2. A Modesty doesn't become me.
 B I am essentially a modest person.

3. A I would do almost anything on a dare.
 B I tend to be a fairly cautious person.

4. A When people compliment me I sometimes get embarrassed.
 B I know that I am good because everybody keeps telling me so.

5. A The thought of ruling the world frightens the hell out of me.
 B If I ruled the world it would be a much better place.

6. A I can usually talk my way out of anything.
 B I try to accept the consequences of my behavior.

7. A I prefer to blend in with the crowd.
 B I like to be the center of attention.

8. A I will be a success.
 B I am not too concerned about success.

9. A I am no better or no worse than most people.
 B I think I am a special person.

10. A I am not sure if I would make a good leader.
 B I see myself as a good leader.

11. A I am assertive.
 B I wish I were more assertive.

12. A I like having authority over people.
 B I don't mind following orders.

13. A I find it easy to manipulate people.
 B I don't like it when I find myself manipulating people.

14. A I insist upon getting the respect that is due me.
B I usually get the respect that I deserve.
15. A I don't particularly like to show off my body.
B I like to display my body.
16. A I can read people like a book.
B People are sometimes hard to understand.
17. A If I feel competent I am willing to take responsibility for making decisions.
B I like to take responsibility for making decisions.
18. A I just want to be reasonably happy.
B I want to amount to something in the eyes of the world.
19. A My body is nothing special.
B I like to look at my body.
20. A I try not to be a show off.
B I am apt to show off if I get the chance.
21. A I always know what I am doing.
B Sometimes I am not sure of what I am doing.
22. A I sometimes depend on people to get things done.
B I rarely depend on anyone else to get things done.
23. A Sometimes I tell good stories.
B Everybody likes to hear my stories.
24. A I expect a great deal from other people.
B I like to do things for other people.
25. A I will never be satisfied until I get all that I deserve.
B I take my satisfactions as they come.
26. A Compliments embarrass me.
B I like to be complimented.
27. A I have a strong will to power.
B Power for its own sake doesn't interest me.

28. A I don't very much care about new fads and fashions.
B I like to start new fads and fashions.
29. A I like to look at myself in the mirror.
B I am not particularly interested in looking at myself in the mirror.
30. A I really like to be the center of attention.
B It makes me uncomfortable to be the center of attention.
31. A I can live my life in any way I want to.
B People can't always live their lives in terms of what they want.
32. A Being an authority doesn't mean that much to me.
B People always seem to recognize my authority.
33. A I would prefer to be a leader.
B It makes little difference to me whether I am a leader or not.
34. A I am going to be a great person.
B I hope I am going to be successful.
35. A People sometimes believe what I tell them.
B I can make anybody believe anything I want them to.
36. A I am a born leader.
B Leadership is a quality that takes a long time to develop.
37. A I wish somebody would someday write my biography.
B I don't like people to pry into my life for any reason.
38. A I get upset when people don't notice how I look when I go out in public.
B I don't mind blending into the crowd when I go out in public.
39. A I am more capable than other people.
B There is a lot that I can learn from other people.
40. A I am much like everybody else.
B I am an extraordinary person.

MACH-IV test of Machiavellianism – 20 item survey

Listed below are a number of statements. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. We are interested in the extent to which you agree or disagree with such matters of opinion.

Read each statement carefully. Then indicate the extent to which you -agree or disagree by writing the appropriate number in the space provided by each statement.

Agree strongly = 6
 Agree somewhat = 5
 Agree slightly = 4
 Disagree slightly = 3
 Disagree somewhat = 2
 Disagree strongly = 1

First impressions are usually best in such matters. If you find that the numbers to be used in answering do not adequately indicate your own opinion, use the one which is closest to the way you feel.

- [] 1. Never tell anyone the real reason you did something unless it is useful to do so.
- [] 2. The best way to handle people is to tell them what they want to hear.
- [] 3 One should take action only when sure it is morally right.
- [] 4. Most people are basically good and kind.
- [] 5 It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.
- [] 6. Honesty is the best policy in all cases.
- [] 7. There is no excuse for lying to someone else.
- [] 8. Generally speaking, men won't work hard unless they're forced to do so.
- [] 9. All in all, it is better to be humble and honest than to be important and dishonest.
- [] 10. When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons which carry more weight.
- [] 11. Most people who get ahead in the world lead clean, moral lives.
- [] 12. Anyone who completely trusts anyone else is asking for trouble.
- [] 13. The biggest difference between most criminals and other people is that the criminals are stupid enough to get caught.
- [] 14. Most men are brave.

- [] 15. It is wise to flatter important people.
- [] 16. It is possible to be good in all respects.
- [] 17. Barnum was wrong when he said that there's a sucker born every minute.
- [] 18. It is hard to get ahead without cutting corners here and there.
- [] 19. People suffering from incurable diseases should have the choice of being put painlessly to death.
- [] 20. Most men forget more easily the death of their father than the loss of their property.

Self- Report of Psychopathy III – R14 – 48 item survey

Note: The original questionnaire contains Antisocial Behavior items that have been excluded from the current study.

Please rate the degree to which you agree with the following statements about you. You can be honest because your name will be detached from the answers as soon as they are submitted.

1	2	3	4	5
Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly

1. I'm a rebellious person.
2. I'm more tough-minded than other people.
3. I think I could fool a lie detector.
4. I have taken illegal drugs (e.g., marijuana, ecstasy).
7. Most people are wimps.
8. I purposely flatter people to get them on my side.
9. I've often done something dangerous just for the thrill of it.
11. It tortures me to see an injured animal.
13. I have pretended to be someone else in order to get something.
14. I always plan out my weekly activities.
15. I like to see fist-fights.
16. I'm not tricky or sly.
17. I'd be good at a dangerous job because I make fast decisions.
19. My friends would say that I am a warm person.
20. I would get a kick out of 'scamming' someone.
22. I never miss appointments.
23. I avoid horror movies.
24. I trust other people to be honest.
25. I hate high speed driving.
26. I feel so sorry when I see a homeless person.

27. It's fun to see how far you can push people before they get upset.
28. I enjoy doing wild things.
30. I don't bother to keep in touch with my family any more.
31. I find it difficult to manipulate people.
32. I rarely follow the rules.
33. I never cry at movies.
35. You should take advantage of other people before they do it to you.
36. I don't enjoy gambling for real money.
37. People sometimes say that I'm cold-hearted.
38. People can usually tell if I am lying.
39. I like to have sex with people I barely know.
40. I love violent sports and movies.
41. Sometimes you have to pretend you like people to get something out of them.
42. I am an impulsive person.
44. I'm a soft-hearted person.
45. I can talk people into anything.
47. I don't enjoy taking risks.
48. People are too sensitive when I tell them the truth about themselves.
50. Most people tell lies everyday.
51. I keep getting in trouble for the same things over and over.
53. People cry way too much at funerals.
54. You can get what you want by telling people what they want to hear.
55. I easily get bored.
56. I never feel guilty over hurting others.
58. A lot of people are "suckers" and can easily be fooled.
59. I admit that I often "mouth off" without thinking.
60. I sometimes dump friends that I don't need any more.
61. I would never step on others to get what I want.

Appendix B

Figure 1

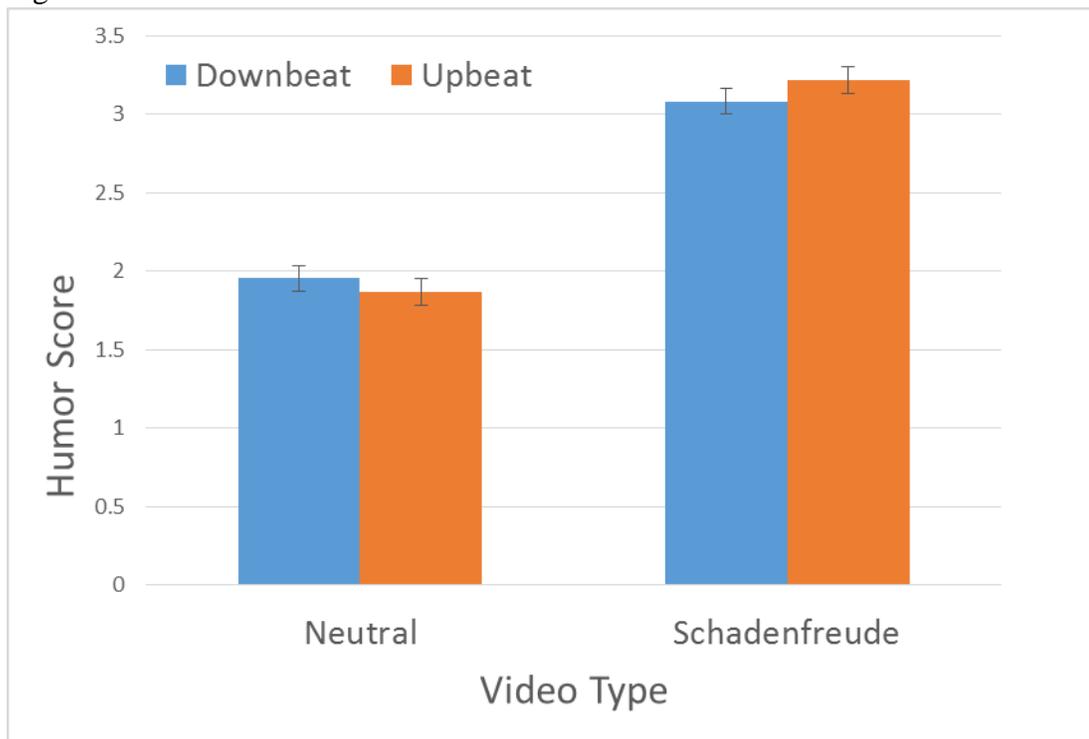


Figure 2

