

Winter 4-11-2018

# The Relationship Between Personal Characteristics and Entertainment Preferences

Sarah Miller-Shreve

*Brescia University College*, [smill32@uwo.ca](mailto:smill32@uwo.ca)

Follow this and additional works at: [https://ir.lib.uwo.ca/brescia\\_psych\\_uht](https://ir.lib.uwo.ca/brescia_psych_uht)



Part of the [Psychology Commons](#)

---

## Recommended Citation

Miller-Shreve, Sarah, "The Relationship Between Personal Characteristics and Entertainment Preferences" (2018). *Brescia Psychology Undergraduate Honours Theses*. 16.

[https://ir.lib.uwo.ca/brescia\\_psych\\_uht/16](https://ir.lib.uwo.ca/brescia_psych_uht/16)

This Dissertation/Thesis is brought to you for free and open access by the School of Behavioural & Social Sciences at Scholarship@Western. It has been accepted for inclusion in Brescia Psychology Undergraduate Honours Theses by an authorized administrator of Scholarship@Western. For more information, please contact [tadam@uwo.ca](mailto:tadam@uwo.ca), [wlsadmin@uwo.ca](mailto:wlsadmin@uwo.ca).

The Relationship Between Personal Characteristics and Entertainment Preferences

Sarah Miller-Shreve

Brescia University College

Thesis Advisor: Dr. John Mitchell

### Abstract

The present study addressed the paradox of the popularity of horror movies. These movies elicit negative emotions of fear and anxiety, yet horror continues to be a one of the most popular film genres. Personal characteristics have been found to influence individual's reactions to anxiety-inducing stimuli, such as horror movies. 43 participants completed a questionnaire that measured trait anxiety, emotional regulation, empathy, sensation seeking and film preferences. Personal characteristics were compared among groups of participants with high, moderate, and low preferences for horror movies. Participants with a high preference for horror movies had significantly higher trait anxiety scores. These results suggest there is a relationship between the personal characteristic of anxiety and entertainment preferences.

### The Relationship Between Personal Characteristics and Entertainment Preferences

According to the website "The Numbers", data compiled over the last 22 years demonstrates that the horror movie genre is the sixth highest grossing movie genre (The Numbers—Top-Grossing Genres, 2017). The popularity of the horror movie genre is evident, yet this popularity can be considered a paradox. Humans tend to gravitate towards situations that encourage positive emotions and distance themselves from situations that induce negative emotions (Larsen, 2000). Yet horror movies, which cause fear and anxiety for the viewers, continue to be one of the most popular movie genres, especially among young audiences (Shu, Hassell, Weber, Ochsner, & Mobbs, 2017; Tamborini, Stiff, & Heidel, 1990). Horror movies are characterized by the use of gore, the threat of death or injury, and fictional elements such as paranormal or supernatural entities to entertain audiences. Characters in these films often endure distressing situations and scenes are often filled with dread and suspense, which can provoke strong reactions in viewers. Despite the presence of disturbing and stress-invoking subject matter, generations of audiences return for more. Why is this?

Fear and anxiety are natural and essential reactions to threats (Öhman & Mineka, 2001). These responses have evolutionary origins and allow us to activate our fight or flight instincts to ensure our survival (Öhman & Mineka, 2001). Because these constructs are closely related, fear and anxiety are often indistinguishable as fearful situations can also produce anxiety, and these responses may be felt simultaneously (Shu et al., 2017). However, distinctions can be made. Fear is generally associated with threats that are concrete, while anxiety is a response to potential threats (Davis, Walker, Miles, & Grillon, 2010; Shu et al., 2017). While both of these constructs may be considered states of alarm or physiological arousal, feelings of fear tend to decrease as

the threat is removed, while feelings of anxiety are more enduring and can occur whether the threat is present or not (Davis et al., 2010; Shu et al., 2017).

Fear and anxiety are stress reactions to threat, but they can also be considered emotional reactions to general stimuli (Gross, 1998; Gross, 2015; Shu et al., 2017). In other words, we can experience these responses even without the presence of danger, such as when one is viewing a horror movie (Shu et al., 2017; Tamborini et al., 1990). The present study approached the constructs of fear and anxiety as emotional reactions to stimuli, as opposed to autonomic responses to threats.

Anxiety can be separated into the two categories of "state" and "trait". State anxiety refers to the level of anxiety experienced during an event, while trait anxiety refers to an individual's tendency to experience anxiety in general situations (Grös, Antony, Simms, & McCabe, 2007). For example, state anxiety may be experienced by the average individual during a stressful event, but this anxiety will abate when the event is over. However, individuals with trait anxiety may experience prolonged feelings of anxiety long after the stressful event has ended (Davis et al., 2010; Shu et al., 2017). The present study investigated the role of trait anxiety on an individual's propensity to enjoy horror films.

Past research on horror media has been approached in two distinct ways. Firstly, from a cultural perspective, in which the content and themes of horror movies are investigated to determine how they generate fear responses in the viewer (Clasen, 2012). In this context, individual reactions are used to evaluate horror movies. Secondly, reactions to horror movies have been explored by analyzing the individual characteristics of the viewers. Individual characteristics have been found to mitigate or exacerbate the effects of fear-inducing stimuli, depending on the individual (Davis et al., 2010; Hoffner, 2009; Hofer & Allemand, 2017; Lin,

2017; Lynch & Martins, 2015; Shu et al., 2017; Tamborini & Stiff, 1987; Zuckerman & Litle, 1986). From this perspective, horror movies are used as stimuli to examine the reactions of individuals. Literature from this viewpoint has argued that the features of the audience, rather than the features of the film, are more useful for explaining why this genre continues to be a favourite for movie-goers (Tamborini et al., 1990).

The personal characteristics that have been studied the most in-depth in relation to fear provoking stimuli include anxiety, empathy, emotional regulation, and sensation seeking. Similar to anxiety, each characteristic can be approached at a state or trait level. The present study and corresponding literature review focused on the trait level of each characteristic. Therefore, only an individual's tendency to possess these characteristics among a variety of situations was considered.

It is important to note that horror media or anxiety-inducing stimuli is more often used as a tool to study personal characteristics, while the influence of personal characteristics to reactions to horror media has not been investigated to the same extent (Hofer & Allemand, 2017; Lin, 2017; Olsson et al., 2016; Olsson, Nearing, & Phelps, 2007; Shu et al., 2017). Research that pertains to the influence of personal characteristics on reactions to horror movies has not been studied sufficiently or on a consistent basis, as there are gaps in the literature that span decades. The present study supplemented prior research by exploring which characteristics are related to an individual's propensity to enjoy horror movies.

Despite the close relation between anxiety and fear, anxiety as a personal characteristic has not been studied in depth in relation to horror media in the recent literature (Hoffner & Levine, 2005). State anxiety as a reaction to stimuli is well documented; however, the influence of trait anxiety has not been adequately addressed (Grös et al., 2007; Hoffner & Levine, 2005; Öhman &

Mineka, 2001; Shu et al., 2017; Spielberg, Olino, Forbes, & Dahl, 2014). Considering trait anxiety reflects one's overall tendency to experience anxiety across many situations, it is plausible that this characteristic may influence one's propensity to watch horror movies (Davis et al., 2010; Shu et al., 2017).

Recent literature suggests that horror movies in particular have the capacity to elicit vicarious anxiety in viewers (Shu et al., 2017). Vicarious anxiety refers to anxiety experienced in an individual as a result of observing others who are exhibiting anxiety (Shu et al., 2017). It has been proposed that horror movies are effective at inducing vicarious anxiety in viewers because characters depicted in horror movies often face threatening situations that evoke fear, anxiety, and distress. With this in mind, it is worth investigating whether anxiety as a trait can influence both viewer's reactions to horror movies and their propensity to seek this type of media.

Empathy is a personal characteristic with both cognitive and emotional aspects (Caruso & Mayer, 1998). Empathy can be thought of as "emotional arousal or sympathy in response to others" (Caruso & Mayer, 1998, p. 3). Those who express empathy consciously attend to and internalize the feelings of others (Tamborini et al., 1990). In this sense, the emotions displayed by others can be considered contagious for individuals who are empathetic (Tamborini et al., 1990). However, empathy is not simply a reaction to the emotions of others. Rather, it is the ability to respond in a congruent manner (Tamborini et al., 1990). For example, when observing another person in pain, an empathetic individual may feel concern, discomfort, or distress, while a person who does not possess empathy may feel indifferent or have an incongruent reaction such as amusement or delight.

Empathy plays role in social fear learning (Hoffner, 2009; Olsson et al., 2007; Olsson et al., 2016). Social fear learning occurs when one observes other's while they are experiencing fear or

distress and internalizes information about the situation as a guide to avoid future threats (Olsson et al., 2016). Social learning occurs indirectly. Therefore, unlike conventional learning, one does not need to experience a negative or harmful situation directly to learn to avoid this situation in the future (Olsson et al., 2007). In a study conducted by Olsson et al. (2016), participants with high trait empathy, as well as participants who were encouraged to empathize with a model that was receiving an electric shock, displayed the greatest effects of social fear learning, as demonstrated by skin conductance responses. This study also provided evidence that relevancy of fear to the observer is not always needed for social fear learning to occur. For instance, participants learned to fear an electric shock, even when they were explicitly told they would never receive one. This finding advances the idea that it is possible to learn to fear situations that you may never encounter.

The influence of empathy on individual fear learning has also been demonstrated in brain imaging studies (Olsson et al., 2007). Past research has demonstrated that the amygdala, the region of the brain that activates during encounters with conditioned fears, also activated in participants as a response to fears learned through social observation (Olsson et al., 2007). Therefore, our brains have the ability to process fear learned directly or indirectly in a similar manner. In this sense, fears experienced directly or through observation have the ability to affect us to the same degree (Olsson et al., 2007). Additionally, all other brain regions that were activated during this experiment correspond with empathic responses, further solidifying the link between empathy, fear, and social learning (Olsson et al., 2007).

With regard to horror media, past research indicates that those who possess trait empathy experience longer lasting negative emotions and less enjoyment when watching frightening films or depictions in which others are in distress (Hoffner, 2005; Hoffner & Levine, 2009; Shu et al.,



2017; Tamborini et al., 1990). It has also been proposed that resolution at the end of horror movies may provide some degree of relief for these viewers, as the distressful situations depicted in these films have been resolved to some degree (Tamborini & Stiff, 1987). All things considered, individuals who possess trait empathy are more apt to internalize the feelings of others, acquire fears through social learning, and consider horror movies more unsettling compared to those who do not possess trait empathy.

Emotional regulation refers to an individual's ability to control one's emotions, including when and how these emotions are expressed (Gross, 2015). The goal of emotional regulation is to influence our emotions in a way that they will be more constructive to our reactions to stressful events, and less destructive to our well-being (Gross, 2015). Individuals who possess emotional regulation as a characteristic have the ability to reduce the intensity or relieve themselves of emotions they do not want to experience (Gross, 2015; Gross & John, 2003; Hofer & Allemand, 2017).

Emotional regulation can be carried out through the use of simple actions, such as breathing techniques, or through the use of more complex cognitive strategies (Gross, 2015). Individuals often develop a tendency to respond to emotional cues in a certain way. However, these tendencies can be changed through the use of emotional regulation strategies (Gross & John, 2003). These strategies can be categorized as antecedent or response-focused (Gross & John, 2003). Antecedent focused strategies are employed before an emotion is experienced. Cognitive reappraisal is an antecedent focused strategy in which one alters the way they think about a situation in order to change their emotional response (Gross & John, 2003). Response focused strategies are used once an individual is already experiencing an emotion. Expressive

suppression is a response-focused strategy in which one attempts to stop all emotional expression during an emotion-inducing event (Gross & John, 2003).

While the ultimate goal of emotional regulation is to experience positive emotions and avoid negative emotions, not all forms of emotional regulation are helpful. Gross and John (2003) found that individuals who used cognitive reappraisal strategies exhibited and experienced fewer negative emotions. On the other hand, individuals who used suppression expressed negative emotions to a lesser degree, but these emotions were still experienced. The incongruence between expression and experience of emotions actually brought on more negative emotions such as "painful feelings of inauthenticity" for these individuals, which suggests that suppression may be more harmful than helpful (Gross & John, 2003, p. 360).

There is little research regarding emotional regulation and horror movies in the recent literature. However, Hofer and Allemand (2017) conducted a study in which a highly distressing film scene was shown to participants. They found that individuals who possessed dispositional emotional regulation were able to regulate negative emotions. Older participants were more likely to use suppression, but there were no significant age differences in the use of reappraisal. Altogether, the literature proposes that those who possess the individual characteristic of emotional regulation are able to influence their emotions to affect their reactions to anxiety-provoking stimuli.

Sensation seeking can be described as an individual's propensity to seek out stimulation or thrilling activities, as well as a passion for new experiences (Arnett, 1994; Friedman & Schustack, 2012). Although there are many parallels with personality traits such as extraversion and neuroticism, sensation seeking is a stand-alone trait (Zuckerman, Bone, Neary, Mangelsdorff, & Brustman, 1972). Individuals with this trait tend to exhibit impulsive, non-

conforming and uninhibited behaviour (Zuckerman et al., 1972). The literature reveals that sensation seeking is highest in males and declines with age (Arnett, 1994; Roth, Hammelstein, & Brähler, 2007; Tamborini & Stiff, 1987; Zuckerman & Litle, 1986).

Notably, it has been proposed that sensation seekers have the ability to experience threats as rewarding. A study conducted by Spielberg and colleagues (2014) presented participants with a threat processing paradigm which included pictures of individuals who were expressing anger and fear. The separate areas of the brain responsible for threat avoidance and reward pursuit activated simultaneously in participants when presented with these stimuli. Therefore, it was theorized that these participants were able to "experience threat cues in a more complex, ambiguous way" (Spielberg, et al., 2014, p. 91). For this reason, individuals who possess sensation seeking may consider frightening or threatening stimuli as less distressing, and perhaps more enjoyable, than those who do not possess this trait. The participants in this particular study were females and males in the puberty stage of development, which corresponds to previous findings that sensation seeking tends to be highest in adolescents (Arnett, 1994; Zuckerman, 1971).

Zuckerman (1971) hypothesized there are four different dimensions of sensation seeking and he created a scale to reflect this. These hypothesized categories are: thrill and adventure seeking, experience seeking, disinhibition, and boredom susceptibility. Thrill and adventure seeking refers to the need for autonomic or bodily arousal that is experienced during thrilling and possibly dangerous activities (Zuckerman, 1971). Experience seeking refers to milder arousal experienced by the mind and senses. Disinhibition refers to stimulation that is derived from experiences with others during social activities (Zuckerman & Litle, 1986). Lastly, boredom susceptibility refers to the likelihood of feeling under-aroused by activities, attempts to counter

this boredom, and a need for new experiences (Zuckerman, 1971; Zuckerman & Litle, 1986).

These dimensions are considered independent of each other, as the contents of each subscale differ and therefore reflect separate aspects of sensation seeking. However, in terms of sensation derived from media, the disinhibition aspect of sensation seeking may be considered the least relevant because viewing a horror movie and experiencing an emotional reaction is not dependent on stimulation from other viewers. For this reason, while Zuckerman's Sensation Seeking Scale was used in the present study, the disinhibition subscale was omitted.

Past research for sensation seeking has been mixed in terms of how influential this trait is on individuals' reactions to horror movies. Tamborini and Stiff (1987) found that sensation seeking was only weakly associated to horror movie attendance. However, Tamborini and Stiff (1987) argue that arousal from passively viewing horror movies is not as intense as arousal experienced while actively partaking in thrilling activities. For this reason, sensation seekers may not be drawn to horror movies any more than the average person. Conversely, Zuckerman and Litle (1986) found that sensation seeking was significantly related to scores on a Curiosity about Morbid Events scale (CAME), and attendance of horror movies. The thrill and adventure seeking subscale of the sensation seeking measure in particular was found to be related to violence curiosity. Although these findings are dated, they provide evidence that sensation seeking can be a factor for attendance of horror movies, and that aspects of horror movies such as morbid and violent content may pique the interest of those who possess the sensation seeking trait. A meta-analysis conducted by Hoffner and Levine (2005) found that sensation seeking was positively correlated with the enjoyment of horror and violence in the media. The most recent literature of horror media entails only video games, but it was demonstrated that participants who were rated as high sensation seekers reported less fear and more enjoyment while playing a virtual reality

horror themed video game, while low sensation seekers reported higher levels of fear (Lin, 2017; Lynch & Martins, 2015). Given the limited recent research regarding this trait, it is worth addressing whether sensation seeking has the ability to affect one's reactions to horror movies.

Individually, the personal characteristics of trait anxiety, empathy, emotional regulation and sensation seeking have the capacity to affect one's reaction to frightful or distressing media. However, interactions between these characteristics can also occur. For example, trait empathy was found to be related to one's tendency to experience vicarious anxiety (Shu et al., 2017). Empathic individuals are prone to vicarious anxiety in the same way they are more prone to social fear learning. Their ability to evaluate and feel the same emotions that others experience allows them to develop vicarious anxiety as a result of watching other's exhibit fear or distress.

On the contrary, research regarding individuals high in sensation seeking experience less anxiety in response to threats (Spielberg et al., 2014). Lin (2017) also found that individuals who were highest in sensation seeking used emotional regulation strategies more frequently while playing virtual reality horror video games than those who were low in sensation seeking. Together, these results suggest that fear reactions can be further explained by examining the effects of multiple characteristics simultaneously and considering possible interactions.

Previous research has demonstrated the significance of personal characteristics and their interactions on an individual's response to anxiety- or fear-provoking stimuli. These characteristics have been examined separately or in conjunction with each other, but the four major characteristics in this area of literature: trait anxiety, empathy, emotional regulation and sensation seeking, have yet to be evaluated together in one cohesive study. Furthermore, many studies have used short film clips in laboratory settings to evaluate viewer's reactions (Hoffner, 2009; Hofer & Allemand, 2017; Shu et al., 2017; Tamborini et al., 1990). This type of

experimental design does not represent a realistic setting for watching films, nor does it acknowledge the participants' propensity to view an entire horror movie. Likewise, past literature in this area of study has failed to consider participants' tendency to seek out and watch horror movies. This information is needed to fully explain which characteristics are predictive of how individuals react to fear-inducing stimuli, and therefore address the paradox of why, in the case of horror movies, people choose to subject themselves to an anxiety- and fear-provoking situation.

The current study examined individual characteristics including trait anxiety, empathy, emotional regulation, and sensation seeking. This study also measured participants' preferences for horror films. Prior analyses suggest that trait anxiety and empathy can be predictive of negative reactions towards horror movies, while emotional regulation has the capacity to mitigate these negative effects (Gross & John, 2003; Gross, 2015; Hoffner, 2009; Shu et al., 2017). The trait of sensation seeking has been demonstrated to correlate with feelings of enjoyment for fear and violence (Hoffner & Levine, 2005; Lin, 2017; Lynch & Martins, 2015; Spielberg, et al., 2014; Tamborini & Stiff, 1987; Zuckerman & Litle, 1986). Personal characteristics were investigated in relation to participants' propensity to watch horror movies, therefore it was hypothesized that participants who enjoy horror movies would possess trait emotional regulation and sensation seeking, while participants who dislike horror movies would possess high trait anxiety and high empathy.

## **Method**

### **Participants**

Participants in this study included 43 Psychology 1000 students from Brescia University College. Participants consisted of 40 females and 3 males, with an average age of 20 years old.

Participants received course credit for their participation.

### **Materials and Procedure**

Participants completed a series of questionnaires that took 20 to 25 minutes to complete. Written instructions included with each measure in the questionnaire. Participants were tested in groups. Scales used in previous research were implemented in this study to measure trait anxiety, empathy, emotional regulation, and sensation seeking. A film preferences questionnaire was constructed for this study to determine whether participants like or dislike horror movies. Scales were given ambiguous titles before they were presented to participants. These measures were presented as a continuous questionnaire. The questionnaire had 137 items in total.

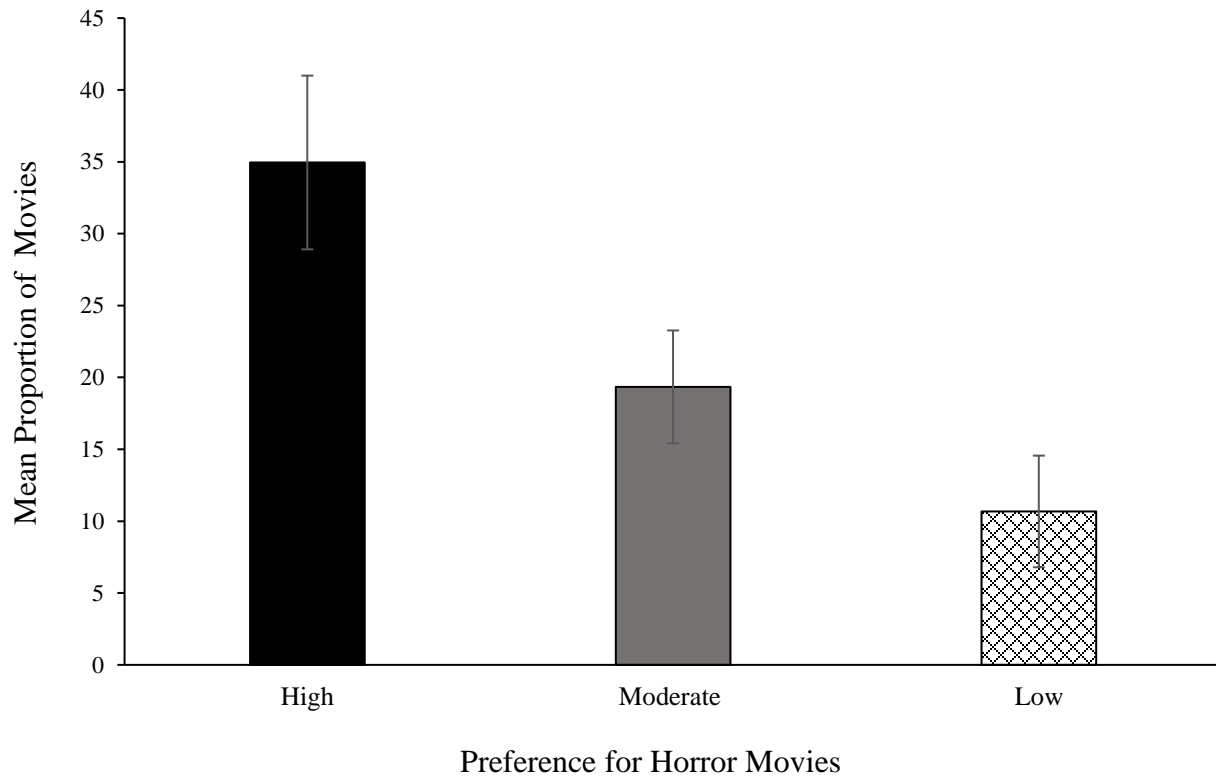
To measure trait anxiety, Gross et al.'s (2007) the State–Trait Inventory for Cognitive and Somatic Anxiety (STICSA) was used. This scale had 21 items and a four-point Likert scale. The emotional regulation questionnaire used was constructed by Gross and John (2003) and consisted of 10 items with a seven-point Likert scale. The Multi-Dimensional Emotional Empathy Scale was constructed by Caruso and Mayer (1998) and was comprised of 30 items with a five-point Likert scale. Sensation seeking was measured using two scales. The first was Zuckerman's (1971) sensation seeking scale version four (SS-IV) which consisted of 43 items and a dichotomous forced choice answer scheme. The thrill and adventure seeking, experience seeking, and boredom susceptibility subscales of the SS-IV were included in this study. The second scale that was used was Roth and Hammelstein's (2012) Need Inventory of Sensation Seeking (NISS) which had 17 items and a five-point Likert scale. The film preference questionnaire was constructed for this study and consisted of 16 items with varying answer schemes.

## Results

Participants were separated into groups according to data collected from the film preferences questionnaire. The first question of the film questionnaire required participants to rank a list of seven genres of film in order of preference. Participants who ranked horror movies as one of their top three choices were designated as "high" preference for horror movies. Participants who ranked horror as their least favourite movie genre were designated as "low" preference for horror movies. Participants who ranked horror movies as their fourth, fifth or sixth genre preference were designated as "moderate" preference for horror movies. As expected, each group of participants differed in the average proportion of horror movies they had watched, based on the list of movies provided,  $F(2, 39) = 3.88, p = .004$ , partial  $\eta^2 = .25$  (see Figure 1). Post hoc comparisons using the Tukey HSD test indicated that the proportion of horror movies for participants in the high preference group significantly differed from participants in the low preference group ( $p < .05$ ). However, participants in the high preference group did not differ from participants in the moderate preference group ( $p > .05$ ). The moderate preference group did not differ from the low preference group ( $p > .05$ ). The group with a high preference for horror movies reported over 1/3 of the movies they watched were horror movies, while the remaining two groups reported less than 20% of the movies they watched were horror movies, on average. Groups did not differ in how often they watched movies in general ( $p > .05$ ).

One participant was excluded from this study because they failed to rank the film genres in the first question of the film preferences questionnaire. Overall, four participants had missing data in their questionnaires. Five questions in total were not answered. Missing data was estimated using participants average response on that scale. For example, if a participant's average score on a questionnaire with a 1 to 4 Likert scale was 3, then this number would be



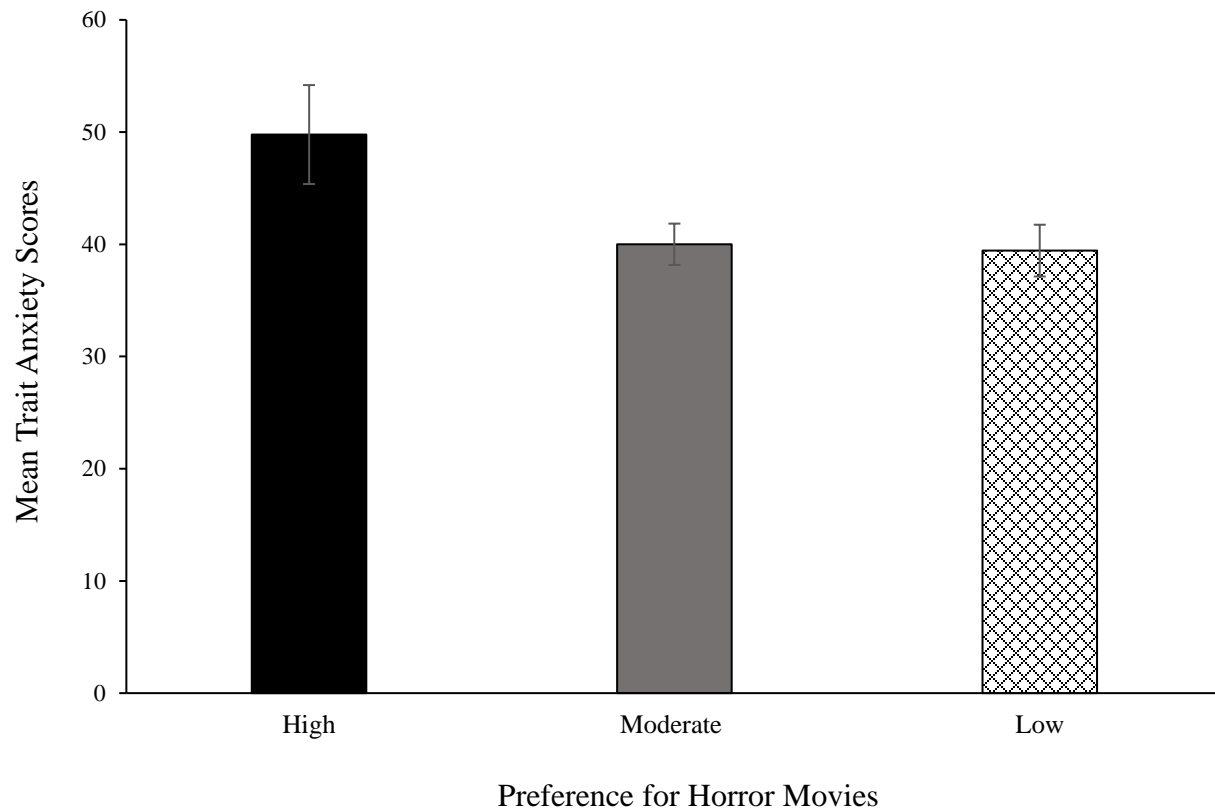


*Figure 1.* Bar graph depicting mean proportion of movies watched that were horror movies for groups of participants that had a high ( $n=9$ ), moderate ( $n=17$ ) or low ( $n=16$ ) preference for horror movies. Participants with a high preference for horror movies watched a greater proportion of horror movies compared to participants with a moderate or low preference for horror movies. The error bars represent standard error of the mean.

assigned to the missing answer.

Separate one-way independent samples ANOVAs were conducted to determine whether groups differed in scores of trait anxiety, empathy, emotional regulation, and sensation seeking. Groups differed significantly on scores of trait anxiety,  $F(2, 39) = 3.88, p = .026$ , partial  $\eta^2 = .17$  (see Figure 2). Post hoc comparisons using the Tukey HSD test indicated that the mean score for trait anxiety for participants in the high preference group significantly differed from participants in the moderate preference group ( $p < .05$ ). Participants with a high preference for horror movies also differed from participants with a low preference for horror movies ( $p < .05$ ). However, the group with a moderate preference for horror movies did not differ from the group with a low preference for horror movies ( $p > .05$ ). The sensation seeking scores were analyzed as three separate subscales of the SS-IV, as a total score of the SS-IV, and as a combined score between the SS-IV and the NISS. Participants did not significantly differ in empathy, emotional regulation, or sensation seeking scores ( $p$ 's  $> .05$ ).

The data was further explored using correlation analysis. Correlations were carried out using a two-tailed test. Although there were no significant correlations, several correlations approached significance. There was a tendency for participants' ratings of horror movies to approach significance with a number of measures including empathy  $r(40) = -.23, p = .15$ , the experience seeking subscale of the SS-IV  $r(40) = -.24, p = .12$ , and the total sensation seeking score of the SS-IV  $r(40) = -.24, p = .12$ . These results suggest that participants who dislike horror movies had a tendency to have low empathy, experience seeking, and sensation seeking scores. How often a participant watched horror movies was also closely related to participant's trait anxiety scores  $r(40) = -.23, p = .15$ . Frequency of viewing horror movies was calculated using a 5-point Likert scale. Lower scores indicate a higher frequency of viewing horror movies. Therefore, this



*Figure 2.* Bar graph depicting mean trait anxiety for groups of participants that had a high ( $n= 9$ ), moderate ( $n= 17$ ) or low ( $n= 16$ ) preference for horror movies. Participants with a high preference for horror movies scored higher on trait anxiety measures compared to participants with moderate or low preference for horror movies. The error bars represent standard error of the mean.

negative correlation suggests that participants with high trait anxiety scores tend to watch horror movies more often than those with low trait anxiety.

### **Discussion**

The present study is one of the first to compare the personal characteristics of trait anxiety, empathy, emotional regulation, and sensation seeking in relation to an individual's preference for horror movies. The results of this study did not support the hypotheses that individuals with a high preference for horror movies possess high emotional regulation and sensation seeking, while individuals with a low preference for horror movies possess high trait anxiety and empathy. However, participants with a high preference for horror movies did significantly differ in trait anxiety compared to participants with a moderate or low preference for horror movies.

Participants with a high preference for horror movies were more anxious than participants with a low or moderate preference. Considering horror movies can entice feelings of anxiety, it seems contradictory that individuals who possess trait anxiety would enjoy horror movies. However, it is possible that these individuals use horror movies as an outlet to express their anxiety, or they enjoy the feeling of vicarious anxiety or fear. While this is a novel finding due the limited research in this area, this finding relates to a study conducted by Strizhakova and Krcmar (2007) which found that individuals who were nervous were more likely to rent horror movies. Strizhakova and Krcmar (2007) suggested that this finding may be explained by the concept of mood management which asserts that individuals seek activities which will induce feelings of pleasure and conversely avoid situations which will induce feelings of pain. As most horror movies end with some type of resolve, this may induce positive feelings of relief or joy and thus contribute to individual's enjoyment of the film. In this sense, if individuals who are predisposed to feel anxiety experience heightened anxiety while watching a horror movie, the

feeling of relief at the end of a horror movie may be more pronounced and therefore more positive compared to individuals who do not possess trait anxiety.

Past research suggests that horror movies are less enjoyable and more frightening to individuals with high trait empathy (Hoffner, 2009; Hoffner & Levine, 2005; Shu et al., 2017; Tamborini et al., 1990). Studies also show that individuals who possess empathy are able to mirror the emotions of others, including negative emotions, such as fear (Tamborini et al., 1990). Thus, it was hypothesized that individuals who report a low preference for horror movies would possess empathy, and that this characteristic would cause the viewing of horror movies to be an unpleasant experience. The results of this study do not support this hypothesis, as individuals who disliked horror movies were not more or less empathetic than those who liked horror movies. Considering individuals who vary in their preference for horror movies did not differ in empathy, it is possible that although these films often depict violence or fear, the characters in these films are not an effective stimulus to evoke empathy in the average person. Or, perhaps the empathy experienced by viewers does not facilitate emotions that are unpleasant enough to affect their propensity to enjoy horror movies. It should be noted, however, that the participants in this study tended to have high scores on the empathy measure. Therefore, the characteristic of empathy may not have been a significant influence on an individual's propensity to enjoy horror movies in this particular sample due to the fact that the scores for this measure were restricted to a very narrow range.

It was proposed that individuals who prefer horror movies would possess trait emotional regulation which would allow them to alleviate themselves of any negative emotions that are experienced when viewing anxiety-provoking stimuli, such as horror movies (Gross, 2015; Gross & John, 2003; Hofer & Allemand, 2017). However, participants who differed in their preference

of horror movies did not differ in emotional regulation. This finding advances the idea that individuals who view horror movies may experience fear or anxiety to some extent, but the experience of these negative emotions do not influence one's preference for horror movies. This notion is supported by the fact that the participants in this study who preferred horror movies possessed trait anxiety, and yet they did not differ in emotional regulation compared to those who disliked horror movies. Therefore, it appears that these individuals with high trait anxiety are not superior in their ability to control their emotions, and yet they are still able to enjoy horror movies. Altogether, these results indicate that horror movies can still be enjoyable when one feels negative emotions. Thus, the characteristic of emotional regulation may not be relevant to horror movie preference.

Participants with a high preference for horror movies did not significantly differ in sensation seeking compared to individuals with a low preference. Literature regarding sensation seeking and horror movies is generally mixed, but this finding provides support for research conducted by Tamborini and Stiff (1987) which suggests that sensation seeking is not strongly related to horror movie attendance. Tamborini and Stiff (1987) proposed that horror movies are not an effective stimulus to attract sensation seekers, as the arousal that is experienced from viewing others is not the same as the arousal that is experienced when individuals are partaking in an activity themselves. From this perspective, it is possible that an individual may possess sensation seeking qualities and dislike horror movies. With this in mind, and in light of the results of this study, it is possible sensation seeking is not a characteristic that is significantly related to an individual's propensity to enjoy horror movies.

As noted earlier, there were no significant correlations between the primary variables. However, there was a trend for individuals who dislike horror movies to have lower empathy,

lower experience seeking type of sensation seeking, and lower overall sensation seeking. This finding supports past research that indicates that individuals lower in empathy tend to dislike horror movies, and that sensation seeking may not be related to horror movie attendance (Hoffner & Levine, 2005; Tamborini and Stiff, 1987). Perhaps not surprisingly, there was also a trend for individuals with high anxiety to watch more horror movies, which coincides with the results of this study in which individuals with a high preference for horror movies watched the most horror movies, and had a higher tendency to be anxious.

There are a few limitations to this study. Notably, the questions on the film preferences questionnaire were highly correlated, which suggests that participants answered the questions consistently and therefore group assignment was done sufficiently. However, it is possible that the various scales used were not sensitive enough to detect individual differences in this sample, or that the participants included in this study were too similar to each other. For instance, the average score of sensation seeking and emotional regulation for each group of participants had a tendency to fall along the median of the total possible score. Therefore, it is possible significant differences may be found in other populations.

Furthermore, the emotional regulation questionnaire used in this study measured an individual's tendency to use reappraisal and suppression types of emotional regulation. For the purposes of this study, it may have been more useful to measure the overall tendency to engage in emotional regulation, as it was hypothesized that individuals who enjoy horror movies would be more likely to engage in emotional regulation. Although this measure has been used in previous research, it was not well suited for the purposes of this study. For these reasons, the results regarding emotional regulation in this study may be limited in their usefulness.

Future directions for this research should include utilizing more sensitive measures for empathy, sensation seeking, and a different measure for emotional regulation. It may also be useful to replicate this study using a different population, as the majority of the participants of this study were adult females and sensation seeking in particular has found to be most prevalent among adolescent males (Arnett, 1994; Roth, et al., 2007; Spielberg et al., 2014; Tamborini & Stiff, 1987; Zuckerman, 1971; Zuckerman & Litle, 1986).

This study found that individuals who like horror movies are significantly more anxious than those who dislike horror movies. Therefore, a further exploration of trait anxiety in relation to propensity to enjoy horror movies may be conducted by using different measures of anxiety, or by incorporating measures of state anxiety while viewing horror media. Further research is needed to determine why individuals with trait anxiety enjoy anxiety-provoking stimuli.

Altogether, this study provides insight into the relationship between personal characteristics and entertainment preferences, with a specific focus on the propensity to enjoy horror movies. It was determined that individuals with high trait anxiety were more likely to enjoy this type of film genre, while the characteristics of empathy, emotional regulation, or sensation seeking were not related to an individual's tendency to enjoy or dislike horror movies. These findings suggest that trait anxiety in particular is a critical variable to influence an individual's preference for horror movies.

While this study focused on individual's propensity to enjoy horror movies, these findings speak to the broader concept of individuals' reactions to anxiety-provoking stimuli. If individuals who possess high trait anxiety enjoy anxiety-provoking stimuli the most, then perhaps it is the experience of fear and anxiety that is the most enjoyable part of viewing horror movies. In this sense, the notion that humans have a tendency to gravitate towards situations that encourage



positive emotions and distance themselves from situations that induce negative emotions is not generalizable to all individuals. That is to say, perhaps the popularity of horror movies is not a paradox after all.

## References

- Arnett, J. (1994). Sensation seeking: A new conceptualization and a new scale. *Personality and Individual Differences, 16*(2), 289-296. [https://doi.org/10.1016/0191-8869\(94\)90165-1](https://doi.org/10.1016/0191-8869(94)90165-1)
- Caruso, D. R., & Mayer, J. D. (1998). A measure of emotional empathy for adolescents and adults. *Unpublished manuscript*. Retrieved from [https://mypages.unh.edu/sites/default/files/jdmayer/files/empathy\\_article\\_2000.pdf](https://mypages.unh.edu/sites/default/files/jdmayer/files/empathy_article_2000.pdf)
- Clasen, M. (2012). Monsters evolve: A biocultural approach to horror stories. *Review of General Psychology, 16*(2), 222-229. doi:10.1037/a0027918
- Davis, M., Walker, D. L., Miles, L., & Grillon, C. (2010). Phasic vs sustained fear in rats and humans: Role of the extended amygdala in fear vs anxiety. *Neuropsychopharmacology: Official Publication of the American College of Neuropsychopharmacology, 35*(1), 105. doi:10.1038/npp.2009.109
- Friedman, H. S., & Schustack, M. W. (2012). *Personality: Classic theories and modern research* (5th ed.). Boston: Pearson Allyn & Bacon.
- Grös, D. F., Antony, M. M., Simms, L. J., & McCabe, R. E. (2007). Psychometric properties of the state-trait inventory for cognitive and somatic anxiety (STICSA): Comparison to the state-trait anxiety inventory (STAI). *Psychological Assessment, 19*(4), 369-381. doi:10.1037/1040-3590.19.4.369
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*(3), 271-299. doi:10.1037/1089-2680.2.3.271
- Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry, 26*(1), 1-26. doi:10.1080/1047840X.2014.940781
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes:

- Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348-362. doi:10.1037/0022-3514.85.2.348
- Hofer, M., & Allemand, M. (2017). Dispositional and situational emotion regulation in younger and older adults. *GeroPsych: The Journal of Gerontopsychology and Geriatric Psychiatry*, 30(3), 109-118. <http://dx.doi.org.proxy1.lib.uwo.ca/10.1024/1662-9647/a000171>
- Hoffner, C. (2009). Affective responses and exposure to frightening films: The role of empathy and different types of content. *Communication Research Reports*, 26(4), 285-296. doi:10.1080/08824090903293700
- Hoffner, C. A., & Levine, K. J. (2005). Enjoyment of mediated fright and violence: A meta-analysis. *Media Psychology*, 7(2), 207-237. doi:10.1207/S1532785XMEP0702\_5
- Larsen, R. J. (2000). Toward a science of mood regulation. *Psychological Inquiry*, 11(3), 129-141. doi:10.1207/S15327965PLI1103\_01
- Lin, J. (2017). Fear in virtual reality (VR): Fear elements, coping reactions, immediate and next-day fright responses toward a survival horror zombie virtual reality game. *Computers in Human Behavior*, 72(1), 350. doi: 10.1016/j.chb.2017.02.057
- Lynch, T., & Martins, N. (2015). Nothing to fear? an analysis of college students' fear experiences with video games. *Journal of Broadcasting & Electronic Media*, 59(2), 298-317. doi:10.1080/08838151.2015.1029128
- The Numbers. (2017). Top-grossing genres 1995 to 2017. Retrieved from <http://www.the-numbers.com/market/Genres/>
- Öhman, A., & Mineka, S. (2001). Fears, phobias, and preparedness: Toward an evolved module of fear and fear learning. *Psychological Review*, 108(3), 483-522. doi:10.1037/0033-295X.108.3.483

Olsson, A., McMahon, K., Papenberg, G., Zaki, J., Bolger, N., & Ochsner, K. N. (2016).

Vicarious Fear Learning depends on Empathic Appraisals and Trait Empathy. *Psychological Science*, 27(1), 25–33. doi: 10.1177/09567976156041

Olsson, A., Nearing, K. I., & Phelps, E. A. (2007). Learning fears by observing others: The neural systems of social fear transmission. *Social Cognitive and Affective Neuroscience*, 2(1), 3-11. doi:10.1093/scan/nsm005

Roth, M., Hammelstein, P., & Brähler, E. (2007). Beyond a youthful behavior style – age and sex differences in sensation seeking based on need theory. *Personality and Individual Differences*, 43(7), 1839-1850. doi: 10.1016/j.paid.2007.06.004

Shu, J., Hassell, S., Weber, J., Ochsner, K. N., & Mobbs, D. (2017). The role of empathy in experiencing vicarious anxiety. *Journal of Experimental Psychology: General*, 146(8), 1164-1188. <http://dx.doi.org.proxy1.lib.uwo.ca/10.1037/xge0000335>

Spielberg, J. M., Olino, T. M., Forbes, E. E., & Dahl, R. E. (2014). Exciting fear in adolescence: Does pubertal development alter threat processing? *Developmental Cognitive Neuroscience*, 8, 86-95. doi: 10.1016/j.dcn.2014.01.004

Strizhakova, Y., & Krmar, M. (2007). Mood management and video rental choices. *Media Psychology*, 10(1), 91. doi: 10.1080/15213260701301152

Tamborini, R., & Stiff, J. (1987). Predictors of horror film attendance and appeal: An analysis of the audience for frightening films. *Communication Research*, 14(4), 415-436. doi:10.1177/009365087014004003

Tamborini, R., Stiff, J., & Heidel, C. (1990). Reacting to graphic horror: A model of empathy and emotional behavior. *Communication Research*, 17(5), 616-640. doi:10.1177/009365090017005003

Zuckerman, M. (1971). Dimensions of sensation seeking. *Journal of Consulting and Clinical Psychology, 36*(1), 45-52. Retrieved from: <http://psycnet.apa.org/doi/10.1037/h0030478>

Zuckerman, M., Bone, R. N., Neary, R., Mangelsdorff, D., & Brustman, B. (1972). What is the sensation seeker? Personality trait and experience correlates of the Sensation-Seeking Scales. *Journal of Consulting and Clinical Psychology, 39*(2), 308. Retrieved from: <http://psycnet.apa.org/doi/10.1037/h0033398>

Zuckerman, M., & Litle, P. (1986). Personality and curiosity about morbid and sexual events. *Personality and Individual Differences, 7*(1), 49-56. [https://doi.org/10.1016/0191-8869\(86\)90107-8](https://doi.org/10.1016/0191-8869(86)90107-8)