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Suspenseful Narratives and Transportation; Explorations of Individual Difference Factors and Transportation as Predictors of Story-Consistent Attitudes

Rikki Alger Price
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SUSPENSEFUL NARRATIVES AND TRANSPORTATION; EXPLORATIONS OF
INDIVIDUAL DIFFERENCE FACTORS AND TRANSPORTATION AS
PREDICTORS OF STORY-CONSISTENT ATTITUDES

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Submitted in partial fulfillment of requirements for the degree
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DEDICATION

This work is dedicated to George, who encourages me to continue to follow my dreams and passions. And to my daughters, who have given me the drive to accomplish things I never thought possible.
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I would like to acknowledge Dr. Richard Perloff who had taken interest in this project and delightedly accepted the invitation to be my thesis advisor. He has spent countless hours helping me to shape my thesis with his extensive theoretical knowledge. In his class his energy and expertise sparked my interest in persuasion theory, and he has given me much needed support and feedback throughout the duration of this research project. I admire and respect him as my mentor. Thank you for your dedication and encouragement throughout the thesis project.

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ABSTRACT

The Transportation-Imagery Model (Green & Brock, 2000) has been studied extensively in terms of the persuasive nature of a well written narrative. Researchers have studied the model through the realm of film (Moyer-Guse, 2008), text (Appel & Richter, 2010), and its applicability in health behavior change (Hinyard & Kreuter, 2007). Narratives have been found to provoke belief change either cognitively or affectively by changing attitudes through the processes of story receivers journey into the story-world, this journey has been deemed “transportation” (Green & Brock, 2000; 2004). The primary goal of this study is to explore the role of individual difference factors and how they may influence a specific proclivity to transportation. Emotional involvement in a story may stem from individual differences such as perceptions of suspense, empathy, need for affect, and sensation seeking. These variables were explored as potential moderators of transportation. As learning from media via transportation has been documented (Van Laer, De Ruyter, Visconti & Wetzels, 2014; Appel & Richter, 2007), it is important to understand what types of individuals are more likely to be transported to best utilize the transportation-imagery model.
Participants were asked to fill out an initial survey assessing individual differences in empathy (Reniers, Corcoran, Drake, Shryane, & Völlm, 2011), need for affect (Appel et al., 2012), and sensation seeking (Lopez-Bonilla & Lopez-Bonilla, 2010). Within a month, participants were exposed to a short film which explored potential consequences of social media. Participants were then asked to respond to a questionnaire. Measures included audience response (Oliver & Bartsch, 2010) transportation (Green & Brock, 2000), character identification (Igartua & Barrios, 2012), character morality (Eden, Tamborini, Grizzard, Lewis, Weber, & Prabhu, 2014) and Facebook intensity (Ellison, Steinfield, & Lampe, 2007). Additionally, participants responded to story-consistent attitude items, these are questions related to the topic of the film including attitudes towards adolescents and attitudes towards social media.

Results demonstrate the importance of considering individual personality differences in transportation research, but did not provide evidence to back up moderation hypotheses. Therefore, individual differences such as empathy, need for affect, and perceptions of suspense may impact some of the variance of the total transportation-imagery model, but do not ensure a stronger relationship between predictor and outcome variables. Theoretical implications are discussed.
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CHAPTER I
INTRODUCTION AND RATIONALE

Have you ever become so engrossed in a film that everything else is left behind? The outside world seems to fall away while you embark on a journey with the characters, either feeling what they feel or at least being able to take on their perspective? As a child, I remember watching the film “FernGully” and then scolding my father for working at a paper mill, as if he were responsible for the depletion of the rainforest. Perhaps viewing “FernGully” changed my opinion, or perhaps it just educated me in a fun and unique way.

Narratives, in the form of books, films, and rhetorical stories, have the power to persuade others. “Making a Murderer” the incredible documentary about Steven Avery being wrongfully accused for sexual assault, released from prison, and then accused and imprisoned for murder brought the attention to this case through the mass audiences of the Netflix series. Due to the influence of this documentary a petition signed by more than 500,000 individuals went to the White House, with petitioners hoping that president Obama would pardon Avery. The Steven Avery narrative moved half a million people to political action; this suggests the enormous power of a well-told story. Researchers have
found that stories have power to change beliefs about the real world, in response to fictional narratives, attitudes shift after exposure (Mar, 2004).

What is it that make narratives so persuasive? Green and Brock attempted to answer this question with their transportation model, which relates to the extent that individuals become absorbed into a story and are transported into the world of a narrative (Green & Brock, 2000). Transportation is best represented as a story of a traveler whose journey leaves an imprint and somewhat changes him or her. Similarly, when a reader becomes engaged in a story, he or she becomes mentally transported into the story world, leaving behind the real world, interacting with story characters and experiencing emotions as if they were in the story themselves. When the story ends, the reader’s beliefs and attitudes are influenced and possibly changed by the narrative. “As with any message, consumers of narratives are often an active audience, bringing their own interpretations to stories. Perhaps more than other messages, narratives allow readers to find different meanings; lessons from stories may resonate with people in ways that depend on their own background and current situation” (Green, 2008 p. 49).

Transportation differs from cognitive elaboration types of persuasion because transported individuals are less likely to counter argue while engaged in a story. Through transportation, a narrative world may seem like a realistic experience which enables individuals to create strong bonds and feelings towards story characters. The experiences of these characters can lead to attitude change through the bonds formed within the story world (Green & Brock, 2000). “For fictional or narrative communications, attachment to a protagonist may be an important determinant of the persuasiveness of a story” (Green & Brock, 2000 p. 702).
Character identification spans several definitions. Scholars generally define identification with media characters as a perceived connection between a character within a narrative and the story recipient. This may be due to liking a character, or perceived similarity to a character, and even perspective taking with a specific character within a narrative (Cohen, 2001; Sestir & Green, 2010). Transportation and identification with characters can overlap but these theoretical variables are also fundamentally different. Transportation occurs due to immersion within a narrative, while identification pertains to a relationship with a character. Transportation can occur without identification, and identification may occur without transportation, but the two are often seen together in transportation research (Sestir & Green, 2010). Opinions differ on how transportation and identification are related. According to some scholars, transportation occurs prior to identification therefore resulting in perspective taking (Green, Brock & Kaufman, 2004). Others argue that identification with a character further immerses one into a narrative (Busselle & Bilandzic, 2011). Regardless, transportation, identification, and emotion are all related constructs that contribute to the persuasive impact of a narrative (Hoeken & Sinkeldam, 2014).

Transportation is not limited to written narratives but may extend to visual narratives as well. Transportation may impact a message recipient regardless of the format of the narrative. Indeed, “different stories may have their influence in different ways” (Green, 2008, p.48). Additionally, fictional and non-fictional narratives can influence transportation as both are thought to engage message recipients through psychological immersive processes. Transportation is highly likely to occur under certain circumstances for certain individuals, Green and Brock (2000) claim that individuals with
a general disposition of being absorbed in experiences may be more likely to be transported. “Just as there may be individual differences in both the general tendency to become transported and in the types of texts that one finds to be transporting, there may also be situational factors that influence the level of transportation experienced by a reader,” Green & Brock (2000, p. 703) note (p. 703). These individual differences may be variables that moderate the effects of transportation on attitude change.

A moderating variable has a specific definition. Baron and Kenny’s (1986) seminal article, on the topic, “a moderator is a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable” (Baron & Kenny, 1986, p.1174). Moderation may imply a change in relationship between a predictor and an outcome variable when a new variable enters the equation. Moderators can help improve predictive power, but tell us more about when a relationship occurs than why it transpires, although it can yield insights on the latter. Identifying the individual differences that moderate the impact of narratives on transportation and thus attitude change is important because these variables could identify the delimiting conditions under which transportation holds, enhancing its ability to predict attitude change, in this way filling a theoretical gap (Appel & Richter, 2010). Currently, it is unclear as to whether there are individual personality differences that determine the extent to which people experience transportation resulting in attitude change while viewing a film. It is important to understand these issues to advance knowledge of the role transportation plays in communication, and this study is designed to examine this broad issue. Key theory- and research--based moderators are discussed below.
Need for Affect. Appel and Richter (2010) argue that need for affect is a personality trait that may explain differences in attitude change through narrative transportation. “We assume that for individuals with a strong disposition to approach emotions, the experience of transportation during processing is particularly intense and, consequently, persuasive effects are particularly strong, they note (p. 102). As the experience of emotions is an essential factor of transportation, individual differences in need for affect may play a key role in narrative persuasion. In their 2010 study on need for affect on narrative persuasion, Appel and Richter found that individuals who were high in need for affect were more likely to be influenced by a narrative, resulting in attitude change. This research suggests that individuals who approach emotions are more likely to indulge in the experience of transportation into a story world, and furthermore, those individuals who approach emotions easily are also more likely to change their attitudes to mirror the views contained in a narrative (Appel & Richter, 2010).

Appel & Richter (2010) reflect on the teachings of Aristotle in rhetorical persuasion stating that pathos, experiencing emotions, is a component of persuasion. They assert that narratives are an ideal way to persuade through pathos, in this way making the case for the need for affect as a pivotal component of the transportation-imagery model.

Empathy. Empathy also guides emotional responses and is hypothesized to have an impact on attitude change through the experiential journey of transportation. Empathy is the guiding force behind individuals’ interpretation of others and responses in the social world. “The ability to empathize varies among individuals and is a fairly stable personality trait that represents a psychological quality that brings continuity to an
individual’s behavior in different situations and at different times, Reiners et. al. (2011 p. 84) note. Empathy is important because it guides social communication and interaction with others, and it is socially useful to view situations through the lens of another, and to respond accordingly.

Researchers in the field of psychology have distinguished the differences between cognitive and emotional empathy by noting that cognitive empathy refers to the understanding of others’ state of mind, or experiences, while emotional, or affective, empathy refers to understanding other’s feelings, as well as the ability to feel what others may possibly be feeling. Cognitive empathy is unlocked by cues; “visual, auditory, or situation cues are used to represent another person’s cognitive and emotional state” (Reiners, Corcoran, Drake, Shryane, & Völlom, 2011, p.85). The response that follows tends to be emotional, as one guides one’s emotions based on the cues received from another. Thus, both cognitive and affective empathy work together to form empathic responses (Reiners et al., 2011). Therefore, cognitive empathy is defined as “the ability to construct a working model of the emotional states of others” (Reiners et al., 2011 p. 85), and affective empathy is defined as “the ability to be sensitive to and vicariously experience the feelings of others” (Reiners et al., 2011. p. 85). Being sensitive to, and vicariously experiencing the state of others may be an important factor in narrative persuasion because those who are more empathic may be more likely to take on the character’s personae through perspective taking. Thus, one can predict that high-empathy individuals are more likely to be transported into the story world.

**Sensation Seeking.** Zuckerman (1990) defines sensation seeking as a personality trait in which individuals crave novel experiences and are more willing to take physical
and social risks. Lorch et. al. (1994) claim that high sensation seekers are attracted to high sensation value messages -- that is, messages with high arousal potential. These messages are defined as attention grabbing by employing high volume, heavy use of sound effects, colorful pictures, extreme close-up camera movements, and more novel formats of visual stimuli. High sensation seeking individuals also prefer higher levels of suspense, drama, and emotional impact in their selected stimuli choices (Lorch et. al., 1994). Individuals high in sensation seeking are more likely to prefer violent media (Greene & Krmar, 2005) and horror films (Hoffner & Levine, 2005). “High sensation seekers prefer emotionally intense media stimuli,” as Banerjee et. al. (200, p. 89) note. Additionally, high sensation seekers prefer stimulating experiences, while low sensation seekers prefer less exciting experiences (Perse, 1996).

The act of immersing oneself into another world could potentially be an exciting experience for high sensation seekers, especially when the genre selected is a preference of those individuals. As violent and suspenseful media with high emotional impact are expected to be an arousing experience and the choice of high sensation seekers, those individuals may be more likely to be transported. This is not only due to the affinity for the genre, but also out of the experiential quality of transportation. “Enjoyment of suspense is at least partially a function of the arousal created by distress,” (Zillmann (1980) notes; see also Oliver & Sanders, 2004). Individual differences in a variety of personality measures have been studied in response to horror and suspense, including sensation seeking, empathy, and psychoticism (Oliver & Sanders, 2004). Research conducted by Tamborini and Stiff (1987) concluded that sensation seekers enjoy horror due to the exciting nature of the films. Suspense may be one reason that high sensation
seekers are drawn to horror films. At the same time, other genres may hold viewers in suspense through story structure, creating the arousal that high sensation seekers typically prefer (Oliver & Sanders, 2004). Researchers have found a connection between the enjoyment of suspense and horror among sensation seeking individuals (Banerjee, Greene, Kcmar, Bagdasarov, & Ruginyte, 2008; Greene & Kcmar, 2005; Hoffner & Levine, 2005; Oliver & Sanders, 2004; & Perse, 1996). However, the role transportation plays in arousing high sensation seekers, and its intersection with suspense, has not been explored.

Suspense. More broadly, filmmakers create suspense and command attention by controlling when narrative information is presented. (Bezdek & Gerrig, 2017). Bezdek and Gerrig (2017) hypothesized that suspenseful moments within a film would cause viewers’ attention to become drawn further into a narrative, making it more difficult to resist the journey into the story world. Thus, a suspenseful narrative may be responsible for sparking transportation into a narrative.

Rationale

Research has not tested the effects of transportation and the residual attitude change dependent upon individual differences in need for affect, sensation seeking, empathy, and perceptions of suspense. The purpose of this study is to extend transportation research by examining whether certain variables moderate the impact of transportation on attitude change. The following sections of the chapter will articulate hypotheses regarding whether several individual difference variables (perceived suspense, empathy, need for affect, and sensation seeking) moderate the effects of transportation on attitude change. To fully understand the effects of transportation, given
that we know its meta-analytically-demonstrated effects on attitudes (Van Laer, De Ruyter, Visconti, & Wetzels, 2014). It is important to explore the moderators that facilitate its impact on attitudes. Gaining knowledge of the role certain moderating variables play will enhance knowledge of persuasion, help clarify theoretical issues, and assist in the further development of the theoretical model. This could have implications for marketers who hope to target specific audiences for health-based communication messages.

The chapters that follow focus first on reviewing the relevant literature on transportation, followed by pertinent research on individual difference variables. Based on the literature and theory, several hypotheses will be proposed. Next, methodology for this research is laid out and the moderating effects of individual differences and suspense on viewing a short film stimulus will be examined in the chapter on results. This thesis ends with a discussion of conclusions, implications, and directions for future research.
The Transportation-Imagery Model

A narrative is a form of storytelling that has historically been a fundamental method of human communication. Stories can help others learn by educating, entertaining, and help to define kinship within a group (Kinnebrock & Bilandzic 2006). Modern narratives may come in written form or in a visual form such as film or television formats. These stories draw in listeners, readers, or viewers as they begin to form mental models helping to shape the narratives and creating true to life representations that make the stories more personal. As recipients of a narrative drift into the story world their imagination distances them from their inner core beliefs, resulting in a loss of the ability to counter argue persuasive messages that story recipients would otherwise not agree with.

Narrative persuasion has been a field of interest to researchers, leading to the inception of Green and Brock’s (2000) transportation-imagery model which suggests that narratives can be influential when well written and engaging. Evidence that the transportation-imagery model may predict persuasion comes from the wide usage of
entertainment-education programs (Moyer-Gusé, 2008) and health-based communication messages (Green & Clark, 2013). Previous research on transportation explored variables such as character identification (Cohen, 2001; Moyer-Gusé, Chung, & Jain, 2011), need for cognition (Green & Brock, 2000; Hall & Zwarun, 2012), enjoyment (Johnson & Rosenbaum, 2015), emotional reactions (Mazzocco, Green, Sasota, & Jones, 2010) and the relationship of transportation to the elaboration-likelihood model (Appel & Richter, 2007; Hinyard & Kreuter, 2007; Igartua & Barrios, 2012). Research in this area has primarily focused on written narratives and many studies have found that transportation does indeed facilitate attitude change (Van Laer et al., 2010). Individual differences factors such as need for cognition (Green & Brock, 2000) and need for affect (Appel & Richter, 2010) have been considered as possible facilitators of transportation.

Exposure to a compelling narrative has been compared to a journey that transports message recipients into the story world (Green & Brock, 2000; Green, 2004). Once transported, recipients no longer have a sense of time and space in the real world. Cognitive and emotional involvement intensify an individual’s involvement in a story world (Van Laer et al., 2010). Transportation into a narrative may result in lasting vivid mental images, as well as compassion and empathy for the characters presented (Green, 2004, p. 247). Empathic responses may lead individuals to feel as though they have walked in a character’s shoes; or even taken on a character persona when a story hits close to home. “The Transportation-Imagery Model posits that transportation into a narrative world plays a central role in persuasion” (de Graaf & Hustinx, 2011, p. 143). Transportation is distinctively different from other mental processing models of persuasion such as the Heuristic-Systematic Model or the Elaboration Likelihood Model.
This is due to the differences in processing while individuals engage in a story. Rather than processing information in a critical manner, individuals are engaging in a story for entertainment purposes, and may be unaware of the persuasive qualities of a narrative (Green & Brock, 2000). In that sense, distraction may be necessary for transportation. Distraction has been classically explored in persuasion research; per Buller (1986), “increasing distraction decreases counterarguing” (p. 93). Alas, distraction tends to involve cognitive processes, while transportation is a more immersive and affective process. Qualities of a narrative can have an impact on a message receiver’s attitudes and beliefs. The implication of transportation is that the further a person is transported into a narrative, the less impervious one will be to the persuasive messages received, which may lead to attitude change (Green & Brock, 2000). Conversely, if a story isn’t well received, then a message recipient’s mental capacity is used to critically analyze the information, preventing attitude change from occurring. Therefore, a narrative must be engaging and compelling for attitude change to occur through transportation.

A story becomes a narrative upon consumer interpretation. Narrative transportation requires the processing of stories, and a message recipient’s active reception and interpretation of these stories. Recipients then become transported through empathy and the development of mental imagery (Van Laer et al., 2010). When transported into the fictional realm, message recipients lose a sense of reality and fully experience a narrative. Through this process, transportation persuades message recipients resulting in real world belief and attitude change. A recent meta-analysis of transportation (Van Laer et al., 2010) explored several studies to determine whether narrative transportation was significantly persuasive. “Transportation was found to have significant
positive effects on affective responses, narrative thoughts, attitudes, and intentions” (Van Laer et al., 2010, p. 806); providing evidence that narrative transportation is a viable source of persuasion resulting in attitude change. However, little is known about the factors that moderate the effects of transportation on attitude change. It is important to understand what moderates the effects of transportation on attitude change.

Moderation may imply a change in relationship between a predictor and an outcome variable when a new variable enters the equation. Moderators can help improve predictive power, but tell us more about when a relationship occurs than why it transpires. Identifying the individual differences that moderate the impact of narratives on transportation and thus attitude change is important because these variables could identify the delimiting conditions under which transportation holds, enhancing its ability to predict attitude change. Moderators are defined as variables that may strengthen or weaken the effects of the relationship of an independent variable on a dependent variable (Baron & Kenny, 1986). For example, a story perceived to be suspenseful may impact transportation in a way that leads message recipients to have greater attitude change. For the purposes of this study potential moderator variables are limited to perceptions of suspense, empathy, need for affect, and sensation seeking, to further explore the facilitation of attitude change through Green and Brock’s (2000) Transportation-Imagery Model.

**Perceived Suspense**

The structure of a narrative may facilitate transportation by means of a compelling story that induces emotional reactions. “Murder at the Mall,” adapted for Green and Brock’s (2000) study, incorporates suspenseful elements intended to evoke strong
emotions and vivid imagery. Per Mazzocco, Green, Sasota, and Jones (2010): “well-written, emotionally charged, suspense-inducing narratives are likely to produce a state of transportation even in those who tend not to be spontaneously transportable (note, p. 6).

Similarly, de Graaf and Hustinx (2011) proposed that affective responses to a narrative can be influenced by a suspenseful structure. A suspenseful story structure contains a plot consisting of the initiation of an event that will have a significant outcome for the main character, leading to an emotional reaction from message recipients. Suspense in a narrative primarily occurs when a character is exposed to a threat or danger resulting in a negative outcome.

Suspense in a narrative may facilitate transportation by increasing a message recipient’s attention, stimuli based on a threat evokes the processing of negative emotions and increases focus (Bezdek, Gerrig, Wenzel, Shin, Pirog, and Schumacher, 2015). In a 2015 study, Bezdek et al. studied the brain activity of participants watching a suspenseful film while connected to an MRI machine, and found that several areas of the brain that process information either centrally or peripherally were activated while viewing. The suspenseful narratives had initiated a decrease in the region of the brain that processes peripherally and an increase in the central processing region. Bezdek et al., (2015) suggests that when a narrative is suspenseful the decrease in peripheral processing is due to the narrative capturing the attention of participants, further immersing them into the story world through mental participation. This may provide evidence that a suspenseful narrative structure may facilitate transportation by engaging message recipient’s mental participation. The added component of a suspenseful story structure aids in driving affective and cognitive responses help to facilitate transportation.
A feeling of suspense involves story recipients as they feel concern for the outcome of a character. de Graff and Hustinx (2011) claim that empathic responses to a narrative are influenced by the structure of a narrative. The framework that defines the structure of a story is derived from Brewer and Liechtenstein’s (1982), structural affect theory. Viewer affect is crucial to a suspenseful structure as characters may not know they are in danger, but those viewing a film have specific cues that will guide their emotions and suspense (Brewer and Liechtenstein, 1982). Utilizing this framework, a suspenseful story structure should evoke powerful emotions, facilitating the transportation of message recipients into the narrative world. Suspense occurs when a plot contains a conflict in which the outcome for a protagonist is unknown for some time.

Suspenseful story structures evoke an affective response when viewers sense dangerous consequences to a specific character (Knoblock, Patzig, Mende, & Hastall, 2004). This affective response may facilitate the transportation of message recipients into the story world. A structure that creates a sense of suspense in viewers has been reported to be a very effective means for narrative transportation (de Graaf & Hustinx, 2011; Kinnebrock & Bilandzic, 2006; Knoblock et al., 2004). de Graaf and Hustinx (2011) found that participants reported higher levels of transportation, emotional response, and higher instances of story-consistent beliefs when a narrative contained a suspenseful structure.

A pilot test was conducted to determine whether a selected stimulus would be perceived by message recipients as suspenseful. Several edits were made to a short film titled ‘#nightslikethese’, to alter the structure of the film. Results concluded that each version of the short film had variance in perceived suspense, suggesting that suspense
cannot be manipulated but rather perceptions of suspense are an individual difference. Therefore, message recipients who perceive a story to be suspenseful are predicted to report higher instances of attitude change than message recipients who do not perceive a story to be suspenseful.

**Hypothesis 1**

\[ H_1: \text{Greater perceptions of suspense will significantly predict greater transportation.} \]

**Hypothesis 2**

\[ H_2: \text{Perceptions of suspense will moderate the effects of transportation on story-consistent attitudes, such that the interaction of perceived suspense and transportation will significantly predict story-consistent attitudes.} \]

It is hypothesized that the strongest story-consistent attitudes will be found among those high in perceived suspense and high in transportation.

**Empathy**

Mazzocco et al. (2010) suggested that individual differences can affect narrative transportation. Zillmann (1991) describes empathy as “the ability to perceive accurately the emotions of others, the proficiency of putting oneself into another person’s lot, and the skill of understanding the affective experiences of others” (pg 136). Among many other explanations, empathy is anything but a passive expression used to sympathize with others. Empathy is a personality factor, and a skill that helps guide interpersonal communication for everyday interactions. Empathy guides affective responses and directs individuals to interact and react in certain situations (Zillmann, 1991). Primarily, those
who foster empathy towards characters in the story are more likely to be persuaded.

Zillmann (1994) claims that narratives, especially those dramatic in nature, evoke intense emotional reactions. Viewers of a film may cry when tragedy strikes a beloved character, or feel suspense when a character is in danger. Story recipients have a natural ability to suspend disbelief and become emotionally involved in a narrative because “empathy is an innate response disposition that continually compels observers to experience the emotions of witnessed others” (Zillmann, 1994, p. 44). Our empathic reactions begin when we decide whether a character is good or bad. Viewers feel bad for the protagonist when he is treated poorly and good when the villain meets justice. Accordingly, the nature of empathy may be morally derived (Zillmann, 1994).

Character valence should be developed within a narrative for message recipients to express empathy. The protagonist must be a positive character and an antagonist should be portrayed as villainous. When a story is well written and dramatic in presentation observers will feel empathy (Zillmann, 1994). Whether it’s empathic distress or pleasure, the more affect a message recipient experiences the better. “Good drama must compellingly develop protagonists and antagonists. These characters must be good or evil, and appraisal of their actions can foster hopes for and fears for certain outcomes” (Zillmann, 1994, p. 48). As such, a well-written story that includes the development of good and evil characters will lead viewers to morally judge them and determine who they care for and who they dislike. The linkage to these characters will then guide a message recipient’s empathy for the remainder of the narrative.

In a 2011 study, de Graaf and Hustinx linked empathic responses to transportation, asserting that emotions contribute to immersion into the story world.
Empathy is predicted to be a necessary piece to the narrative transportation puzzle. A receiver cannot suspend reality if they have no compassion for the protagonists in a film. As such, empathy is likely to be an important component to the transportation processes. “Narrative transportation occurs whenever the consumer experiences a feeling of entering a world evoked by the narrative because of empathy for the story characters and imagination of the story plot” (Van Laer et al., 2014, p. 798). Van Laer et al. (2014) provides pedagogical evidence that empathy is an underlying function of transportation. When viewers try to understand, a character or point of view, they are immersing themselves into the story world - becoming part of the story themselves. Differences in empathy are expected to either facilitate or impede transportation. Since message recipient’s empathic responses are tied to their feelings for characters, identification should also be explored.

Empathy is related to identification empirically, per Zillmann (1991) empathy may be “the conscious or unconscious assimilation of another ego through a process called identification” (pg. 136). Identification is defined as “a process in which one loses self-awareness and it is temporarily replaced with heightened emotional and cognitive connections with a character” (Cohen, 2001, p. 251). Igartua and Barrios (2010, 2012) postulate that the process by which narrative persuasion works is through involvement with a narrative. They argue that involvement may occur when a viewer or reader becomes transported into the story world due to character identification or empathy towards situational events. “When people identify with the characters, their capacity to generate criticism and counterarguments to the persuasive content of the message is reduced, and therefore their resistance to the persuasion is weakened” (Igartua & Barrios,
identification with characters may be part of the immersion process by which message recipients connect to the narrative and become transported into the story world. When transportation occurs, viewers are unable or unwilling to counter-argue points that they normally wouldn’t agree with and this process begins to influence a viewer’s beliefs. Although transportation and identification may overlap conceptually, they are, indeed, different. Transportation involves immersion into a story and can occur without identification, and identification may occur without transportation, but seldom does (Sestir & Green, 2010). Igartua and Barrios (2010) differ transportation from identification, stating that identification involves more cognitive processing and is more closely related to the elaboration-likelihood model (note p. 517).

Character identification occurs when message recipients see a story from a character’s perspective. Identification may also occur when recipients like or find themselves comparable to a character. Empathy can lead to involvement and immersion when a message recipient cares for a character. There are two main dimensions of empathy, cognitive and affective, which lead to involvement and immersion through character identification. Affective empathy occurs when message recipients are emotionally involved in a narrative, hence they feel what the characters feel. Cognitive empathy may occur when message recipients think about what they would do in a character’s place, literally placing themselves in the character’s shoes. Individuals high in empathy may be more responsive to character identification and character identification may lead to transportation, potentially influencing message recipients through personal reflection.
Narratives may also engage message recipients so they share a character’s goal. When this occurs, a viewer experiences a total loss of awareness as they are absorbed into the story world and become the character. Identification with fictional characters allow viewers to take on new identities and explore different points of view. When viewers take on different roles as they watch or read a narrative, they become transported into a story world and feel emotions as if they are part of the story (Igartua & Barrios, 2012, pp. 517-18). Comparable to the intense emotions evoked from suspense, attachment to a character may be essential to the persuasiveness of a story, as empathy for protagonists is said to transport message recipients into the narrative world (Igartua & Barrios, 2010; Igartua & Barrios, 2012). Accordingly, those who identify with characters may feel what a character feels, take on a character’s perspective, understand the goals and motivations of a character, or lose themselves within a narrative. Therefore, when empathy is high, transportation and identification may have a stronger effect on attitude change than when empathy is low.

**Hypothesis 3**

- **H3a:** Greater empathy will significantly predict greater transportation.
- **H3b:** Empathy will moderate the effects of transportation on story-consistent attitudes, such that the interaction of empathy and transportation will significantly predict story consistent attitudes.

It is hypothesized that the strongest story-consistent attitudes will be found among those high in empathy and high in transportation.

**Hypothesis 4**

- **H4a:** Greater empathy will significantly predict greater identification.
**H4b:** Empathy will moderate the effects of identification on story-consistent attitudes, such that the interaction of empathy and identification will significantly predict story-consistent attitudes.

It is hypothesized that the strongest story-consistent attitudes will be found among those high in empathy and high in identification.

**Need for Affect**

Maio and Esses (2001) defined need for affect as the individual differences in motivations to approach or avoid emotional situations. Need for affect (NFA) encompasses both approach and avoidance behavior towards emotions. High need for affect individuals use emotion to make judgments and understand others as well as their own behaviors. In contrast people who find emotions uncomfortable will avoid emotional situation (Maio & Esses, 2001). People high in need for affect can utilize their emotions to understand social situations, are more open to uncertainty and unstructured activities, and tend to enjoy cognitively challenging endeavors (Maio & Esses, 2001). Singer (1980) stated that individuals are motivated by emotional experiences, citing differential affect theory as evidence. In this view emotions are part of a basic system that contribute to an individual’s behavior. Affect in this system is primarily responsible for motivation and behavior modification.

Theoretically, need for affect should be linked to the transportation imagery model because those high in need for affect actively seek out and intensify emotional experiences (Appel & Richter, 2010, p. 107). In their 2010 study, Appel and Richter found that individuals who have a higher need for affect were more likely to be persuaded from exposure to a narrative; additionally, the emotional content of a narrative
drives both transportation and persuasion. Transportation facilitates attitude change in three ways: the reduction of cognition in a way that affects the counter-arguing abilities, the consequences of vivid mental stimulation cause events to be assumed actual memory instead of fictional representation, and finally the strong emotional experiences facilitate persuasion through enjoyment, positive experience, arousal, or identification with characters (Appel & Richter, 2010). “For individuals with a strong disposition to approach emotions, the experience of transportation during processing is particularly intense and, consequently, persuasive effects are particularly strong” (Appel & Richter, 2010 p. 102). Therefore, one could expect that need for affect moderates transportation significantly impacting attitude change. Appel and Richter (2010) provided empirical evidence that need for affect moderated transportation on attitude change. “Theoretically, these results establish need for affect as a personal disposition that influences narrative persuasion in a consistent and significant way” (Appel & Richter, 2010 p. 127). The results from the Appel and Richter study provided evidence that individuals who were more inclined to approach emotions were also excellent candidates for narrative persuasion.

Bartsch, Appel, & Storch (2010) tested need for affect in suspense-structures such as horror and drama. Their study proposed that those who are low NFA will not enjoy or appreciate emotional content. The results of a hierarchical regression model relating high need for affect (NFA) to high intensity of emotions felt during watching either “The Omen”, or “United 93” (Bartsch et al., 2010) suggested that high NFA individuals were significantly more likely to feel intense emotions while viewing a film. Due to the assumption that high need for affect personality traits are more likely to evoke and feel
intense emotions when viewing a film, these personality types may be more susceptible to transportation and consequently develop story consistent beliefs. Proportionately, those lower in need for affect may not become emotionally involved in a narrative, therefore, they may not report any transportation effects. If high NFA individuals are more likely to engage emotionally with media content, then it should be assumed they are more likely to feel empathy and connect with characters via identification.

Although individuals high in need for affect are often found to hold strong attitudes and are more willing to defend their mind-set in controversial conversations, research has not tested the effects of transportation and the residual attitude change dependent upon individual differences. Haddock, Maio, Arnold, and Huskinson (2008) found that individuals high in need for affect were more persuaded by affective based messages while individuals high in need for cognition were more persuaded by cognition-based messages. Thus, matching messages to target individual differences may be a successful endeavor. Fictional films, especially those high in emotional content, should appeal to high need for affect individuals. If these films embed a social-learning message, then attitude change should be more likely. If low need for affect individuals tend to avoid emotions then they may be less likely to identify with characters, feel empathy, and may not be transported into the story world. If this is the case, low need for affect individuals may not be viable candidates for narrative persuasion. Participants high in need for affect should report higher empathy, higher character identification, higher transportation, and will be more susceptible to persuasion than low need for affect participants.
Hypothesis 5

\( H_{5a} \): Greater need for affect will significantly predict greater transportation.

\( H_{5b} \): Need for affect will moderate the effects of transportation on story-consistent attitudes, such that the interaction of NFA and transportation will significantly predict story-consistent attitudes.

It is hypothesized that the strongest story-consistent attitudes will be found among those high in need for affect and high in transportation.

\( H_{5c} \): Need for affect will moderate the effects of identification on story-consistent attitudes, such that the interaction of NFA and identification will significantly predict story-consistent attitudes.

It is hypothesized that the strongest story-consistent attitudes will be found among those high in need for affect and high in identification.

Sensation Seeking

Jensen, Imboden, and Ivic (2009) claim that the immersive process of transportation may stimulate arousal. If sensation seekers actively seek out forms of media based on arousal experience then perhaps high sensation seeking individuals may be more likely to be transported than low sensation seeking individuals, especially when the content itself stimulates intense emotions. A study conducted by Lorch, Palmgreen, Donohew, Helm, Baer, and Dsilva (1994) provides evidence that high sensation seekers are attracted to high sensation value stimuli. Not only did high sensation seekers enjoy stimulus that contained novel elements such as extreme close-ups and the heavy use of sound effects, but they also desired higher levels of suspense, drama, and emotional impact than low sensation seeker individuals. Attempting to provide a better knowledge
for targeting anti-drug PSA’s in the early nineties, Lorch et al. (1994) found that high sensation seekers paid more attention and responded to high sensation value stimuli.

Researchers have consistently found that high sensation seekers (HSS) report enjoying stimuli such as suspense and horror due to the intense emotions which stimulate an optimal level of arousal (Perse, 1996). “Sensation seeking may be defined as the need for complex and ambiguous experiences and the willingness to take risks to obtain those experiences” (Banerjee, Greene, Krcmar, Bagdasarov, & Ruginyte, 2008, p. 99). Banerjee et al. (2008) found that high sensation seeking individuals preferred films that were emotionally intense and highly arousing despite negative or positive valence. The intense emotions provided by the experience of a suspenseful story structure are attractive to sensation seekers. Horror films can make viewers feel alert, experience a surge in their energy, invigorate the senses, and result in an accelerated heartbeat (Tamborini and Stiff, 1987).

Hoffner & Levine (2005) provide evidence that fearful and shocking stimuli lead to reported positive experiences in high sensation seeking individuals. “Sensation seeking is a personal characteristic that is believed to contribute to viewer’s enjoyment of violence and fright” (Hoffner & Levine, 2005, p. 211). Research on the enjoyment of horror (and related genre such as suspense) suggest that people like frightening films due to the thrills, unpredictability, and excitement they provide (Tamborini & Stiff, 1987). Sensation seekers enjoy suspense and horror films because they are exciting, but suspense is not limited to genre, a suspenseful structure may also be present in drama (Oliver & Sanders, 2004).
People may choose engaging stimulus to increase hedonic experiences or to reduce aversive affective states (Hoffner and Levine, 2005). Researchers have found that individuals enjoy the intense emotional experiences found in genres such as drama, horror, and suspense (Bartsch et. al., 2010; Maio & Esses, 2001; Tamborini & Stiff, 1987). Perhaps these choices (such as drama and suspense) are particularly rewarding experiences for sensation seekers due to their ability to transport and engage in the emotional experiences of characters in these types of films. Due to the relationship of empathy and character identification to transportation, high sensation seekers should be more transported than low sensation seekers, especially during exposure to high sensation value stimulus such as suspense.

**Hypothesis 6**

\[ H_{6a}: \text{High levels of sensation seeking will significantly predict high levels of transportation.} \]

\[ H_{6b}: \text{Sensation seeking will moderate the effects of transportation on story-consistent attitudes, such that the interaction of sensation seeking and transportation will significantly predict story-consistent attitudes.} \]

It is hypothesized that the strongest story-consistent attitudes will be found among those high in sensation seeking and high in transportation.
CHAPTER III

METHOD

A convenience sample of undergraduate students from a diverse university in the Great Lakes Region were selected from communication courses in the Spring of 2017 by offering students extra credit to watch a film and take a survey (via Survey Monkey). Participants were informed of their rights as participants in academic research and signed informed consent prior to participation. The data collection was a two-part process, participants initially participated in a short survey that assessed individual personality differences. They were then informed that they would be sent a link to a second survey within a one month period. The second survey was administered two-weeks after all personality data was collected. Participants were instructed to watch a short film, and answer several questions about the film after watching. Participants were debriefed on the research subject immediately after survey completion on the Survey Monkey website. Due to the two-session nature of the data collection process, the attrition rate was high. A total of $N=155$ participated in survey one, while only $N=101$ participated in both survey administrations. Subjects who answered manipulation check items wrong (discussed in
measures), were eliminated from the study. A total of $N=88$ subjects were used for the analysis for this study.

**Participants**

Of the total $N=88$ sample, 60.2% of the individuals were female ($N=53$) and 39.8% were male ($N=35$). Most participants (77.3%) reported their racial of ethnic background as white, ($N=68$), 12.5% identified as African American, ($N=11$), and 10.2% identified as mixed or other, ($N=9$). The age of participants ranged from 19-63 ($M = 24.06$, $SD = 6.40$, $Mdn = 22$).

**Stimulus**

All participants watched the short film (11 minutes) #nightslikethese, a social commentary film produced by Eyre, Kirk, and Midthunder, (2013), that reflects the desensitization effect that constant connectivity and social media usage has on adolescents. In this film the main character drugs her parents and sneaks out with a friend. The two teens take many selfies on their way to a convenience store where things take a turn for the worse. One teen flirts with the convenience store clerk while the other, who is being bullied via text message, contemplates suicide. She fills a drink cup with a drain opener chemical and mixes it with a blue slushy drink. When she walks over to her friend she says that her mom is calling and she should go, she acts like she is going to drink from the beverage cup but then offers it to her friend. She leaves the drink behind when her friend decides to stay and have relations with the convenience store clerk. The adolescent who stayed behind goes to the bathroom, and when she returns she finds the store clerk seizing and bleeding on the ground. She grabs her phone to call the police, but pauses momentarily and then decides to take a photo and post it on some form of social
media. This story was selected due to its similarity to the example of a story in which a butler poisons his lord’s wine in previous studies on structural affect and suspenseful stories (Brewer & Liechtenstein, 1982; de Graaf & Hustinx, 2011).

**Measures**

Each of the variables presented below were measured on an eleven point Likert-based scale (unless otherwise noted) where 0 indicates the highest level of disagreement and 10 indicates the highest level of agreement with each item. Items were measured in this way so that participants can easily identify a response and to increase variance. See Appendix A for cited scales in full, and Appendix B for questionnaire key.

**Moderating Variables**

**Perceptions of Suspense.** Three items from the Oliver & Bartsch (2010) audience response scale were used to assess individual’s perceptions of suspense. All audience response dimensions were included in the questionnaire (fun, moving, lasting, and suspense) but only suspense was used for the parameters of this study. Items from the suspense dimension include: “I was at the edge of my seat while watching this movie,” “This was a hear pounding kind of movie,” and “The movie was suspenseful.” The Cronbach’s Alpha for perceptions of suspense is .91 (α = .91, M = 4.63, SD = 3.11).

**Empathy.** The Reniers et al. (2011) questionnaire of cognitive and affective empathy (QCAE) addresses the many dimensions of empathy. It is important to address both cognitive and affective empathy. Cognitive empathy is the ability to understand the emotional state of others while affective empathy is the ability to experience the feelings of others. Items were taken from the Reniers et al. (2011) study were used to create a shortened empathy scale for this study. The original QCAE included 31 items, only 12
items were selected for this study. The top six factor loadings (loadings were taken directly from Reniers et al., 2011) for cognitive and affective empathy were aggregated to create an empathy scale. Cognitive empathy items include: “I can easily work out what another person might want to talk about,” “I can tell if someone is masking their true emotion,” “I can sense if I am intruding, even if the other person does not tell me,” “I try to look at everybody’s side of a disagreement before I make a decision,” “Before criticizing somebody, I try to imagine how I would feel if I was in their place,” and “When I am upset at someone, I usually try to ‘put myself in his shoes’ for a while.” The Cronbach’s Alpha of this dimension was $\alpha = .76$. The affective dimension included the following items: “I am happy when I am with a cheerful group and sad when others are glum,” “It worries me when others are worrying and panicky,” “I usually stay emotionally detached when watching a film” -reverse coded, “I am usually objective when I watch a film or play, and I don’t often get completely caught up in it,” -reverse coded, “I often get emotionally involved with my friends’ problems,” and “Friends talk to me about their problems as they say that I am very understanding.” (\(\alpha = .62\)). The total of twelve items created an aggregate empathy score with a Cronbach’s Alpha of .74 ($\alpha = .74, M = 6.94, SD = 1.20$).

**Need for Affect.** The shortened need for affect questionnaire (Appel et al., 2012) addresses individual differences in the approach or avoidance of emotions. Five items indicate an approach to emotions, sample items include: “I feel that I need to experience strong emotions regularly,” “Emotions help people get along in life,” and “It is important for me to be in touch with my feelings.” An additional five items indicate avoidance of emotions, sample items include: “If I reflect on my past, I see that I tend to
be afraid of feeling emotions,” “I find strong emotions overwhelming and therefore try to avoid them,” and “Emotions are dangerous – they tend to get me into situations that I would rather avoid”, all avoidance items are reverse scored to create an aggregate need for affect scale. The Cronbach’s Alpha for the need for affect scale is .80 (\( \alpha = .80, M = 6.52, SD = 1.50 \)).

**Sensation Seeking.** Zuckerman (1971) created sensation seeking subscales to identify four types of sensation seeking. Thrill and adventure seeking represents the tendency to enjoy extreme sports such as sky diving, and other fast paced adrenaline-fueled activities. Experience seeking individuals enjoy experiences that involve the mind and the senses such enjoyment of music and art. High experience seekers may also enjoy drug use and live a non-conformist lifestyle. This is deemed the “hippie” subscale by Zuckerman (1971). Disinhibition sensation seeking is the need for variety and seeking out social situations such as partying and usually enjoyment of an assortment of sexual partners. Finally, boredom susceptibility refers to avoiding repetition and routine, and striving for excitement and variety.

A shortened sensation seeking scale (Lopez-Bonilla & Lopez-Bonilla, 2010) that utilized the several dimensions of the Zuckerman sensation seeking scale was used for this study. Two items assessed each dimension in this shortened sensation seeking scale. Sample items include: “I would like to explore strange places” (experience seeking), “I get restless when I spend too much time at home” (boredom susceptibility), “I would like to try bungee jumping” (thrill and adventure seeking), and “I would love to have new and exciting experiences, even if they are illegal” (disinhibition). All
dimensions were added together to create the sensation seeking scale, the Cronbach’s Alpha for this scale is \( \alpha = 0.82, M = 5.25, SD = 2.11 \).

**Dependent Variables**

**Transportation.** Items used to measure transportation define participant’s level of involvement with the narrative. These questionnaire items were taken from Green and Brock’s (2000) narrative transportation questionnaire, the wording will be adapted to apply to a film instead of a short story. Sample items include: “While I was watching the film, I could easily picture the events in it taking place,” “I was mentally involved with the film, while watching it,” and “After watching the film it was easy to put it out of my mind” (reverse coded). The transportation scale reached a Cronbach’s Alpha of \( \alpha = 0.85, M = 4.92, SD = 1.88 \).

**Character Identification.** The basic dimensions of character identification are emotional and cognitive empathy. Emotional empathy regards the ability to feel what characters feel while cognitive empathy concerns stepping into a character’s shoes. In this sense, exposure to a narrative may lead to a temporal loss of self-awareness (Igartua, 2010). Fourteen items were selected from Igartua’s (2010) identification with characters and narrative persuasion research. These questionnaire items address the loss of self-awareness indicative of identification as well as the empathic reaction to characters. Sample items include: “I thought I was like the characters or very similar to them,” “I identified with the characters,” and “I thought that I would like to be like or act like the characters,” for the perspective taking dimension. “I understood the characters’ way of acting, thinking or feeling,” “I tried to see things from the point of view of the characters,” and “I felt emotionally involved with the characters’ feelings” addressed the
empathic dimension. The identification scale reached a Cronbach’s Alpha of .94 (α = .94, M = 3.27, SD = 2.22).

**Story-Consistent Attitudes.** Items for story-consistent attitudes are comprised of attitudes toward social media and attitudes towards adolescents. Items were pre-tested using a pilot test prior to the study. Participants in the pilot test were asked what they considered as the main theme of the film immediately after watching. Additionally, questions about participant’s attitudes towards social media and attitudes towards adolescents were assessed. Items had a strong alpha score indicating that they were significant indicators of attitudes reflected in the film. Seven items assessed attitudes towards social media and included items such as: “Individuals lose morality may be attributed to social media usage” and “A constant state of internet connectivity may have some negative effects on adolescents.” Five items assessed attitudes towards adolescents and included items such as: “Adolescents should have regular mental health screenings” and “Parent’s should be held responsible for the actions of their adolescents.” All items were added together to create the film attitudes scale, the Cronbach’s Alpha for this scale is .88 (α = .88, M = 6.58, SD = 1.55).

**Additional Measures**

**Manipulation Checks.** Participants were asked two true/false items to gage whether they watched the film. These items included: “One of the main characters takes a photo of the convenience store clerk’s hands” and “The main characters stop at McDonalds for a snack.” If participants answered either of these questions wrong, they were eliminated from the study.
**Character Morality.** A small set of items assessed individual ratings of specific characters’ moral values. Items from the Eden, Tamborini, and Grizzard (2014) study were adapted to assess participant’s perceptions of character morality. Individuals were asked to rate each character’s behavior in terms of the extent to which their behavior violated or upheld their perspective of acceptable behavior. Where 0=completely unacceptable behavior and 10=completely acceptable behavior. Each main character was then identified for participants to rate, such as: “The convenience store clerk” ($M = 2.97$, $SD = 2.88$), “Kallie, the girl in the hat, white tank top, and sweatpants” ($M = 1.14$, $SD = 2.27$) and “Rowan, the girl in the flannel top and shorts ($M = 1.50$, $SD = 2.35$). The Cronbach’s Alpha for morality is .65 ($\alpha = .65$, $M = 1.87$, $SD = 1.92$).

**Social Media Usage.** The Facebook Intensity Scale (Ellison, Steinfield, & Lampe, 2007) was adapted to assess participant’s social media usage. Rather than using the term “Facebook” some items were changed to say, “social media,” sample items include: “Social media is part of my everyday activity” and “I am proud to tell people I’m on social media.” Number of Facebook friends and hours on social media per week were asked as open ended items and scores were standardized to create a social media usage scale. The Cronbach’s Alpha for social media usage is .83 ($\alpha = .65$, $M = -.003$, $SD = .68$).

**Pilot Test**

A pilot test was completed several months prior to the start of data collection. The pilot test examined transportation, perceived suspense, and story-consistent attitudes after viewing one of several versions of the short film #nightslikethese. The film was cut in various ways to manipulate suspense. The initial direction of this study was a two by two experimental design predicting that a suspenseful stimulus would provide a more
immersive and transportive experience than a non-suspenseful stimulus. Findings from the pilot test influenced the current design by evaluating film attitude scale items to identify whether the theme was consistent with scale creation. Results from the pilot test provided evidence that suspense could not be manipulated, as participants exposed to the low suspense film had a higher mean score for perceived suspense than participants exposed to the high suspense version of the film. Therefore, only one version, the original film, was used in the final data collection. The experimental design was dropped and the variable ‘suspense’ was treated as an individual difference item rather than as an experimental manipulation. The pilot test demonstrated there were significant correlations among suspense, transportation, and story-consistent attitudes, indicating the validity of using the film as a stimulus for the study.
CHAPTER IV

RESULTS

This chapter presents the findings, organized by hypotheses, using correlational and regression analysis. The first part of the chapter will discuss the statistics employed and the remaining sections will describe findings for each hypothesis. Path models exploring the linear relationships and the moderation analyses can be found in Appendix D.

Analyses

For simple predictor analyses a bivariate regression was performed to evaluate each hypothesis. Beta weights and Pearson’s $r$ are reported with 95% confidence intervals for each significant hypothesis. Additionally, t-tests are provided to report the strength of the relationships evaluated. Results for each linear relationship are provided and a correlation table can be found in Appendix B.

Interaction hypotheses were evaluated using hierarchical regression. Six different interaction terms were created by centering predictor variables, $X_1$: suspense (e.g. a centered suspense variable can be created by subtracting the mean from each individual score to create a centered version of the variable) and $X_2$: transportation (e.g. subtracting the mean from each individual score for transportation to create a centered version of the
variable) then multiplying the centered variables, the product of $X_1$ and $X_2$ (e.g. centered suspense * centered transportation = the interaction term).

Predictor variables were entered in a series of blocks. Block one contained demographic items age (open-ended response), sex (coded 0=female, 1=male), white (race, dummy coded 1=white, else=0) and black (race, dummy coded 2=black, else=0). Main effect variables were entered into block two, and the interaction terms were entered into block three. Hierarchical multiple regression was performed. To assess the contributions of individual predictors, the $t$ ratios for the individual final regression coefficients ($\beta$) were examined for each variable.

Six different multiple regressions were conducted in the prediction of film attitudes. In all six, the first block was the same set of control variables (demographics), resulting in a significant $R^2$ contribution ($R^2 = .14$, $F(4,83) = 3.37$, $p = .013$). While individual predictor final $\beta$’s varied across models, in all cases, the only significant unique contribution was sex (male), with a negative $\beta$ (ranging from -.23 to -.32). In block 1, sex (male) was statistically significant. The nature of the relation of sex (male) to attitudes was not predicted; the negative sign for the slope for sex indicated that higher scores on gender (i.e. being male) predicted lower scores on attitudes. Therefore, women were more likely to have higher attitudes associated with the film topic than men.

Subsequent descriptions of the six regressions will focus on blocks 2 (main effects) and 3 (interactions). Results for each hypothesis are reported and a regression table is provided for each interaction hypothesis.

**Hypothesis Testing**
Hypothesis 1

\( H_1: \) Greater perceptions of suspense will significantly predict greater transportation.

A bivariate regression was performed to evaluate whether transportation could be predicted from perceptions of suspense. The correlation (see correlation table in Appendix B) between perceptions of suspense and transportation was statistically significant, \( r(86) = .68, p < .001 \). The \( r^2 \) for the regression equation was .46; that is, 46% of the variance in transportation was predicted from perceived suspense, \( \beta = .68, t(86) = 8.60, p < .001 \).

This is a strong relationship; increases in perceptions of suspense tended to be associated with increases in transportation. The 95% CI for the unstandardized slope \( (B = .41) \) to predict transportation from perceptions of suspense ranged from .315 to .506; thus, for every one point increase in perceived suspense, the predicted transportation increased by about .32 to .51, providing support for hypothesis 1.

Hypothesis 2

\( H_2: \) Perceptions of suspense will moderate the effects of transportation on story-consistent attitudes, such that the interaction of perceived suspense and transportation will significantly predict story-consistent attitudes.

To assess whether an interaction relationship exists between suspense and transportation on story-consistent attitudes, a hierarchical regression analysis was examined to determine the significance of an interaction term. The results are shown in Table 1. Perceived suspense and transportation significantly increased the \( R^2 \) when entered as main effects into block 2, \( (R^2 \text{ change} = .07, p < .05) \). Neither perceived
suspense nor transportation had significant beta weights, but transportation was near significant at \( t(81) = 1.99, p = .05 \). The interaction term (centered-suspense*centered-transportation) in block 3 did not significantly predict story-consistent attitudes, therefore hypothesis 2 was not supported.
Table 1: Summary of Regression Model Predicting Story-Consistent Attitudes

<table>
<thead>
<tr>
<th>Models</th>
<th>$r$</th>
<th>Final $\beta$</th>
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</table>

Total $R^2 = .22$

Adjusted $R^2 = .15$

$F(7,80) = 3.19$

$p = .005$

*** $p < .001$, ** $p < .01$, * $p < .05$
Hypothesis 3

\textbf{H3a: Greater empathy will significantly predict greater transportation.}

A bivariate regression was performed to evaluate whether transportation could be predicted from empathy. The correlation (Appendix B) between empathy and transportation was statistically significant, \( r(86)=.32, p < .01 \). The \( r^2 \) for the regression equation was .10; that is, 10\% of the variance in transportation was predicted from empathy, \( \beta=.32, t(86) = 3.13, p < .01 \).

Increases in empathy tended to be associated with increases in transportation, albeit, this is a weak relationship. The 95\% CI for the unstandardized slope (\( B = .50 \)) to predict transportation from empathy ranged from .18 to .82; thus, for every one point increase in empathy, the predicted transportation increased by about .18 to .82, providing support to hypothesis 3\(_a\).

\textbf{H3b: Empathy will moderate the effects of transportation on story-consistent attitudes, such that the interaction of empathy and transportation will significantly predict story-consistent attitudes.}

To assess whether an interaction relationship exists between empathy and transportation on story-consistent attitudes, a hierarchical regression analysis was examined to determine significance of an interaction term. The results can be seen in Table 2. Empathy and transportation significantly increased the \( R^2 \) when entered in block 2 as main effects, (\( R^2 \) change =.08, \( p < .05 \)). Transportation had a significant beta weight, \( \beta = .28, t(81) = 2.53, p = .01 \). The interaction term (centered-empathy*centered-transportation) in block 3 did not significantly predict story-consistent attitudes, therefore hypothesis 3\(_b\) was not supported.
Table 2: Summary of Regression Model Predicting Story-Consistent Attitudes

<table>
<thead>
<tr>
<th>Models</th>
<th>r</th>
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<th>t</th>
<th>Sig.</th>
<th>R^2 Change</th>
<th>F</th>
<th>Sig.</th>
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<td>.01**</td>
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</table>

*** p < .001, ** p < .01, * p < .05

Hypothesis 4

H4a: Greater empathy will significantly predict greater identification.

A bivariate regression was performed to evaluate whether identification could be predicted from empathy. No significant relationship was found between empathy and identification, \( r = .14, \) n.s., \( \beta = .14, \) \( t(86) = 1.34, \) \( p = .18, \) therefore, hypothesis 4a was not supported.

H4b: Empathy will moderate the effects of identification on story-consistent attitudes, such that the interaction of empathy and identification will significantly predict story-consistent attitudes.

To assess whether an interaction relationship exists between empathy and identification on story-consistent attitudes, a hierarchical regression analysis was
examined to determine significance of an interaction term. The results can be seen in Table 3. Empathy and identification as main effects significantly increased the $R^2$ via block 2, ($R^2$ change = .07, $p < .05$). Identification had a significant beta weight, $\beta = .23$, $t(81) = 2.32, p < .05$. The interaction term (centered-empathy*centered-identification) in block 3 did not significantly predict story-consistent attitudes, therefore, hypothesis 4b was not supported.

**Table 3: Summary of Regression Model Predicting Story-Consistent Attitudes**

<table>
<thead>
<tr>
<th>Models</th>
<th>$r$</th>
<th>Final $\beta$</th>
<th>$t$</th>
<th>Sig.</th>
<th>$R^2$ Change</th>
<th>$F$</th>
<th>Sig.</th>
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<td>.01**</td>
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<td>$F(7,80) = 3.22$</td>
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</tbody>
</table>

*** $p < .001$, ** $p < .01$, * $p < .05$

**Hypothesis 5**

$H5a$: Greater need for affect will significantly predict greater transportation.

A bivariate regression was performed to evaluate whether transportation could be predicted from need for affect. The correlation between need for affect and transportation was statistically significant, $r(86) = .36, p < .001$. The $r^2$ for the regression equation was
.13; that is, 13% of the variance in transportation was predicted from need for affect, 
\( \beta = .36, t(86) = 3.58, p < .001 \). This is a weak to moderate relationship; increases in need for affect tended to be associated with increases in transportation. The 95% CI for the unstandardized slope (\( B = .45 \)) to predict transportation from need for affect ranged from .20 to .71; thus, for every one point increase in need for affect, the predicted transportation increased by about .20 to .71, providing support for hypothesis 5a.

H5b: Need for affect will moderate the effects of transportation on story-consistent attitudes, such that the interaction of NFA and transportation will significantly predict story-consistent attitudes.

To assess whether an interaction relationship exists between need for affect and transportation on story-consistent attitudes, a hierarchical regression analysis was examined to determine significance of an interaction term. The results can be seen in Table 4. Need for affect and transportation significantly increased the \( R^2 \) when entered as main effects in block 2 (\( R^2 \) change = .07, \( p < .05 \)). Transportation had a significant beta weight, \( \beta = .29, t(81) = 2.70, p < .01 \). The interaction term (centered-nfa*centered-transportation) in block 3 did not significantly predict story-consistent attitudes, therefore hypothesis 5b was not supported.
Table 4: Summary of Regression Model Predicting Story-Consistent Attitudes

<table>
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<tr>
<th>Models</th>
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<td>.76</td>
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</tbody>
</table>

*** p < .001, ** p < .01, * p < .05

**H5:** Need for affect will moderate the effects of identification on story-consistent attitudes, such that the interaction of NFA and identification will significantly predict story-consistent attitudes.

To assess whether an interaction relationship exists between need for affect and identification on story-consistent attitudes, a hierarchical regression analysis was examined to determine significance of an interaction term. The results can be seen in Table 5. Need for affect and identification were near significant in increasing the $R^2$ when they were entered as main effects in block 2, ($R^2$ change = .06, $p = .051$). Identification had a significant beta weight, $\beta=.26$, $t(81) = 2.41, p < .05$. The interaction term (centered-nfa*centered-identification) in block 3 did not significantly predict story-consistent attitudes, therefore hypothesis $5_c$ was not supported.
### Table 5: Summary of Regression Model Predicting Story-Consistent Attitudes

<table>
<thead>
<tr>
<th>Models</th>
<th>r</th>
<th>Final $\beta$</th>
<th>t</th>
<th>Sig.</th>
<th>$R^2$ Change</th>
<th>F</th>
<th>Sig.</th>
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</thead>
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<td>.01**</td>
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<td>.01*</td>
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<td>.81</td>
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</table>

*** $p < .001$, ** $p < .01$, * $p < .05$

**Hypothesis 6**

$H6_a$: Higher levels of sensation seeking will significantly predict greater transportation.

A bivariate regression was performed to evaluate whether transportation could be predicted from sensation seeking. No significant relationship was found between sensation seeking and transportation, $r = -.11$, n.s., $\beta = -.11$, $t(86) = -.99$, $p = .33$; therefore, hypothesis $6_a$ was not supported.

$H6_b$: Sensation seeking will moderate the effects of transportation on story-consistent attitudes, such that the interaction of sensation seeking and transportation will significantly predict story-consistent attitudes.

To assess whether an interaction relationship exists between sensation seeking behavior and transportation on story-consistent attitudes, a hierarchical regression
analysis was examined to determine significance of an interaction term. The results can be seen in Table 6. Sensation seeking and transportation significantly increased the $R^2$ when entered as main effects in block 2, ($R^2$ change = .08, $p < .05$). Transportation had a significant beta weight, $\beta = .31$, $t(81) = 2.70$, $p < .01$. The interaction term (centered-ss*centered-transportation) in block 3 did not significantly predict story-consistent attitudes, therefore hypothesis 6b was not supported.

Table 6: Summary of Regression Model Predicting Film Attitudes

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<th>Models</th>
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<th>$t$</th>
<th>Sig.</th>
<th>$R^2$ Change</th>
<th>F</th>
<th>Sig.</th>
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<td></td>
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<td>1.24</td>
<td>.27</td>
<td></td>
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<tr>
<td>SS*Trans</td>
<td>-.06</td>
<td>-.11</td>
<td>-1.11</td>
<td>.27</td>
<td></td>
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</tbody>
</table>

Total $R^2 = .23$
Adjusted $R^2 = .16$
$F(7,80) = 3.36$
$p = .003$

*** $p < .001$, ** $p < .01$, * $p < .05$

Additional Analyses

Suspense predicting story-consistent attitudes. Although no relationship was hypothesized A bivariate regression was performed to evaluate whether story-consistent attitudes could be predicted from perceptions of suspense. The correlation between
perceptions of suspense and story-consistent attitudes was statistically significant \((r = .25, p < .01)\). The \(r^2\) for the regression equation was \(.06\); that is, \(6\%\) of the variance in story-consistent attitudes was predicted from perceived suspense, \(\beta = .25, t(86) = 2.41, p < .05\). This is a weak relationship; increases in perceived suspense tended to be associated with increases in story-consistent attitudes. The 95% CI for the unstandardized slope \((B = .13)\) to predict story-consistent attitudes from perceived suspense ranged from \(.02\) to \(.23\); thus, for every one point increase in perceived suspense, the predicted story-consistent attitudes increased by about \(.02\) to \(.23\).

**Empathy predicting story-consistent attitudes.** Greater empathy also predicted story-consistent attitudes. A bivariate regression was performed to evaluate whether story-consistent attitudes could be predicted from empathy. The correlation between empathy and story-consistent attitudes was statistically significant \((r = .27, p < .01)\). The \(r^2\) for the regression equation was \(.08\); that is, \(8\%\) of the variance in story-consistent attitudes was predicted from empathy, \(\beta = .27, t(86) = 2.64, p < .01\). This is a weak relationship; increases in empathy tended to be associated with increases in story-consistent attitudes. The 95% CI for the unstandardized slope \((B = .35)\) to predict story-consistent attitudes from perceived suspense ranged from \(.09\) to \(.62\); thus, for every one point increase in perceived suspense, the predicted story-consistent attitudes increased by about \(.09\) to \(.62\).

**Transportation predicting story-consistent attitudes.** Transportation's effect on story-consistent attitudes was also tested. A bivariate regression was performed to evaluate whether story-consistent attitudes could be predicted from transportation. The correlation between transportation and story-consistent attitudes was statistically
significant \((r = .37, p < .001)\). The \(r^2\) for the regression equation was .13; that is, 13\% of the variance in story-consistent attitudes was predicted from transportation, \(\beta = .37, t(86) = 3.64, p < .001\). This is a moderate relationship; increases in transportation tended to be associated with increases in story-consistent attitudes. The 95\% CI for the unstandardized slope \((B = .30)\) to predict story-consistent attitudes from transportation ranged from .14 to .47; thus, for every one point increase in transportation, the predicted story-consistent attitudes increased by about .14 to .47.

**Identification predicting story-consistent attitudes.** The effects of identification on story-consistent attitudes was found to also be significant. A bivariate regression was performed to evaluate whether story-consistent attitudes could be predicted from identification. The correlation between identification and story-consistent attitudes was statistically significant \((r = .25, p = .01)\). The \(r^2\) for the regression equation was .06; that is, 6\% of the variance in story-consistent attitudes was predicted from identification, \(\beta = .25, t(86) = 2.38, p < .05\). This is a weak relationship; increases in identification tended to be associated with increases in story-consistent attitudes. The 95\% CI for the unstandardized slope \((B = .17)\) to predict story-consistent attitudes from identification ranged from .03 to .32; thus, for every one point increase in perceived suspense, the predicted story-consistent attitudes increased by about .03 to .32.

**Identification and transportation directionality.** As identification and transportation both predicted story-consistent attitudes, the linear relationship of identification and transportation were also tested. A bivariate regression was performed to evaluate whether identification could be predicted from transportation, and whether transportation could be predicted from identification. The correlation between
transportation and identification was statistically significant \( (r = .69, p < .001) \). The \( r^2 \) for the regression in both equations was .48; that is, 48% of the variance in identification was predicted from transportation – and vice-versa. For both equations: \( \beta = .69, t(86) = 8.87, p < .001 \). This is a strong relationship; increases in transportation tended to be associated with increases in identification. The 95% CI for the unstandardized slope \( (B = .82) \) to predict identification from transportation ranged from .64 to 1.00; thus, for every one point increase in transportation, the predicted identification increased by about .64 to 1.00. Increases in identification tended to be associated with increases in transportation. The 95% CI for the unstandardized slope \( (B = .30) \) to predict identification from transportation ranged from .14 to .47; thus, for every one point increase in identification, the predicted transportation increased by about .14 to .47.

**Character morality and identification.** Character morality may have impacted identification. Identification had a low mean score for all participants, \( M=1.89 \) for the characters overall (on a 0-10 scale), the convenience store clerk who engaged in sexual behavior with a minor had a low mean for identification \( M = 2.48 \) and a low mean for morality \( M = 2.97 \). Kallie, the adolescent who tried to poison her best friend also had a low mean for identification \( M = 1.80 \), and a low mean for morality, \( M = 1.14 \). Finally, Rowan, the adolescent who engaged in sexual behavior with an adult male and then took a photo of him when he was found collapsed and bleeding (instead of calling the police for help) had a low mean for identification \( M = 2.19 \), and a low mean for morality \( M = 1.50 \). A bivariate regression was performed to evaluate whether identification could be predicted from morality. The correlation between morality and identification was statistically significant \( (r = .37, p = .001) \). The \( r^2 \) for the regression equation was .14; that
is, 14% of the variance in identification was predicted from morality, $\beta = .37$, $t(86) = 3.71$ $p < .001$. This is a moderate relationship; increases in morality tended to be associated with increases in identification. The 95% CI for the unstandardized slope ($B = .43$) to predict identification from character morality ranged from .20 to .66; thus, for every one point increase in character morality, predicted identification increased by about .20 to .66. This indicates the importance of developing likable characters that individuals can relate to when developing a story meant to persuade audiences.

**Perceived suspense predicting identification.** For the sake of research interests, additional bivariate analyses of empathy, need for affect, and sensation seeking predicting identification provided insignificant results. Interestingly, increases in perceived suspense significantly predicted identification. The correlation between perceived suspense and identification was statistically significant ($r = .53$, $p = .001$). The $r^2$ for the regression equation was .28; that is, 28% of the variance in identification was predicted from perceived suspense, $\beta = .53$, $t(86) = 5.76$ $p < .001$. This is a moderate to strong relationship; increases in perceived suspense tended to be associated with increases in identification. The 95% CI for the unstandardized slope ($B = .38$) to predict identification from perceived suspense ranged from .25 to .51; thus, for every one point increase in perceived suspense, predicted identification increased by about .25 to .51.

**Gender predicting empathy.** Further exploration of gender differences on empathy and transportation resulting in attitude change provided interesting results. As evidenced in each moderation analysis, gender {variable: “male” coded male (1), female (0)}, primarily being female, was found to significantly predict story-consistent attitudes, $\beta = -.36$, $t(86) = -3.54$, $p < .001$. Resulting in the finding that females reported more
empathy than males. An independent samples t-test was conducted to compare empathy and gender. There were significant differences in the scores for female ($M = 7.34, SD = .99$) and male ($M = 6.35, SD = 1.25$); $t(86) = 4.14, p < .001$. Following, a bivariate regression concluded that being female significantly predicted higher empathy: $\beta = -.41$, $t(86) = -4.14, p < .001$. The relationship of empathy and transportation on story-consistent attitudes provided to be an interesting find, and hence, gender should be further explored in future research.
CHAPTER V
DISCUSSION

The overall findings for this research suggest that perceptions of a suspenseful narrative, and personality indicators such as high empathy, and high need for affect can significantly predict transportation. The following sections will discuss the results of the hypotheses and the possible explanations for both significant and non-significant results.

It is interesting to note that the effects of both transportation and identification significantly predicted attitudes across the board. For each moderation hypothesis, the main effect of transportation, or the main effect of identification (dependent on the hypothesis) significantly predicted story-consistent attitudes. This shows the strength of not only the transportation-imagery model, but also a strong relationship between character identification and story-consistent attitudes. However, the findings of the moderators were surprising and merit discussion in this chapter.

Perceived Suspense and Transportation

As predicted in the first hypothesis, increased transportation could be predicted from increases of perceived suspense. Bezdek and Gerrig (2017) found similar results in that suspenseful moments in a film narrowed participants focus and further transported
individuals in a manner that prevented a quick response to reaction times during their experiment. When an individual perceives a character to be in danger or face significant consequences, an emotional response may elicit increased attention. Increased attention may be the force behind transporting individuals into the story world. It is important to evaluate attentional aspects of film media such as suspense since attentional items are included in the transportation scale, “While I was reading the narrative, activity going on in the room was on my mind” (Green & Brock, 2000, pg. 704).

While H1 found that increases in suspense could predict increases in transportation, increases in perceived suspense did not moderate the effects of transportation on story-consistent attitudes. Transportation as a main effect had a near significant beta weight, but the interaction term was not significant. While suspense significantly impacted transportation, the interaction of suspense and transportation did not generate a significant impact on story-consistent attitudes. It is possible that participants were turned off by suspense, therefore resulting in a loss of attentional focus. If individuals do not enjoy the hedonistic qualities of suspense genre they may not be transported resulting in attitude change. Perhaps participants already had strong attitudes about the adverse effects of social media prior to the study. The design of the study did not include a pre-test for individual attitudes; therefore, if pre-existing attitudes towards social media were present, a measure for suspense and transportation may not have significantly impacted measured film attitudes. For transportation to work, narratives need to include a plot and fully developed characters (Green, 2008). The stimulus material used for this study was very short, only eleven minutes long. The length of the film could have impacted the relationship of suspense as viewers were not held in
suspense for a period of time that would be reflective of a full-length film, or television show. Additionally, the length of the film did not allow for a fully developed plot or for the characters to significantly impact viewers.

The characters in the film also may have impacted individual suspension of disbelief as they acted more extreme than the average adolescent. This will be discussed in depth later in the discussion. Perceived threat to a story protagonist and the development of concern for a story character motivate viewer’s level suspense (Brewer & Liechtenstein, 1982; de Graff & Hustinx, 2011; Knoblock et. al., 2004), these affective responses facilitate transportation. A theoretical explanation for why this did not occur could be related to the film. Characters were not fully developed, nor were they positively valanced. Viewers may have been turned off by the characters in the film, and that may have affected perceptions of suspense. Why would viewers be on the edge of their seats if they didn’t care for the characters in the film?

Moderating variables affect the strength or direction of the relationship between predictor and outcome variables (Baron & Kenny, 1986). It is interesting to note that although the interaction of perceived suspense and transportation did not reflect a significant moderation effect on predicting attitudes, the main effects of increases in perceived suspense significantly predicted both transportation and story-consistent attitudes. This may indicate a possible mediation relationship, per Baron & Kenny (1986) “Whereas moderator variables specify when certain effects will hold, mediators speak to how or why such effects occur” (p. 1176). A follow-up study should explore whether perceptions of suspense act as a possible mediator for transportation on attitudes.
Empathy and Transportation

H3a predicted that high empathy individuals would also report high transportation. Results from a bivariate regression provide evidence that high empathy predicts self-reported transportation from exposure to a narrative. Measurement items for empathy included items related to film viewing such as “I usually stay emotionally detached when watching a film” and “I usually objective when I watch a film or play, and I don’t often get completely caught up in it” (Reiners et al., 2011)- reverse scored. Getting swept up in a story is the vehicle driving transportation into a narrative, and empathy for others signifies that an individual may be more inclined to get swept up in the emotions of another, especially when engaged in a narrative. Green and Brock’s (2000) transportation-imagery scale includes items that reflect feelings of empathy, and getting swept up in the feelings or emotions of others. For example, “I could picture myself in the scene of the events described in the narrative” and “I found myself thinking of ways the narrative could have turned out differently” (Green & Brock, 2000) indicate that an individual has become so swept up in a story that they are mentally immersed. Empathy is another form of immersion, where one can feel what others are feeling or step into the shoes of another person to show sympathy or to experience what another is feeling.

Although empathy did predict transportation, per H3b, the interaction of empathy and transportation did not interact to significantly predict story-consistent attitudes. The non-significant result of the interaction between empathy and transportation could be due to the design of the study. The characters in the stimulus film were not easy to empathize with as they were not developed in a manner that provided a story protagonist, all
characters were negatively valanced. Per Zillmann (1994) our empathic reactions begin when we decide whether a character is good or bad. Viewers feel bad for a main character when s/he is treated poorly, and empathy may be morally derived. Stories must be well written and contain both positively and negatively valanced well developed characters to guide empathic reactions. A receiver cannot suspend reality if they have no compassion for the characters, and it was hard to show compassion for the characters in this film. Although the interaction of empathy and transportation did not reflect a significant moderation relationship, predicting attitudes, the effect of empathy had a significant beta weight predicting both transportation and film attitudes. This may indicate another possible mediator relationship.

**Empathy and Identification**

No significant relationship or interaction effect was found between empathy and identification for H4a, this may be attributed to the morality of the characters. The characters in the film were negatively portrayed to send a message about the detrimental effects social media could have on adolescents. The adolescents in this film were significantly younger than the sample of participants, which may have attributed to the difficulty of participants to empathize and identify with the characters. Additionally, the characters were cruel and acted out in ways that portrayed that they may have had mental health issues. They were not everyday adolescents and did not act in a manner that is consistent with idealized normative teenage behavior. The characters in the film didn’t reflect moral attitudes and weren’t relatable. One of the adolescents in the film tried to poison her best friend and the gas station clerk was the unsuspecting victim of poisoning. Even his character seemed a bit off as he engaged in sexual contact with an adolescent,
possibly ten years younger than him. Therefore, those who considered the characters immoral may not be as likely to identify with them.

Per H4b, Empathy was expected to be moderate character identification as the definition literally encompasses stepping into another’s shoes. Due to the nature of transportation and identification both significantly impacting attitudes, these variables are said to be related. Green, Brock, and Kaufman (2004) suggest that transportation may drive identification, as viewers who identify with characters either like, want to be, or perceive themselves as similar to a character (Cohen, 2001). Character identification (Igartua & Barrios, 2010; Moyer-Guse, 2008; Moyer-Guse & Nabi, 2010) and transportation (Green, 2004; Green & Brock, 2000; Green, Brock, and Kaufman, 2004) are found to obtain significant effects on attitude change after exposure to a narrative. Perhaps characters in this study had an adverse effect on identification and transportation.

Need for Affect and Transportation

H5a predicted that high need for affect individuals would also report high transportation. Results from a bivariate regression provide evidence that high need for affect significantly predicts transportation from exposure to a narrative. The significant beta weight for the effect of need for affect on transportation reflects the importance of individual differences in approaching emotion to the overall transportation model and provides support for hypothesis 5a.

Maio and Esses (2001) found that individuals high in need for affect seek out emotional experiences and enjoy cognitive challenges, additionally high need for affect individuals preferred viewing emotional films. Results from the Appel and Richter (2010) study provided evidence that individuals who were more inclined to approach emotions
were also excellent candidates for narrative persuasion (refer to Ch. 2). Unfortunately, similar results were not obtained in this study. Need for affect significantly predicted transportation, but need for affect did not interact with transportation to produce a significant beta weight; therefore, H5_b was not supported. Perhaps the stimulus used for the study was not particularly generative of affect for high need for affect individuals. The stimulus material used in this study was not reflective of highly emotional content, of the sort that Appel and Richter (2010) employed (e.g. Murder at the Mall).

**Need for affect and Identification**

If high need for affect individuals are drawn to more emotional films, they may enjoy creating emotional ties to characters by inserting themselves into the story via character identification. As transportation refers to immersion into the story world, identification refers to identifying or engaging with a character. Hoeken and Sinkeldam (2014) argue that character identification and narrative presence are similar, as they relate to the dimension of engagement and imagery reflected in Green & Brocks (2000) transportation imagery model. For example, Green & Brock’s (2000) transportation scale items: “I could picture myself in the scene of events described in the narrative” – engagement, and “While reading the narrative I had a vivid image of the main character” – imagery. “Emotions can play an important role in narrative persuasion” (Hoeken & Sinkeldam, 2014, p. 939). If emotions are important piece of the persuasion puzzle regarding both transportation and identification, the assumption that need for affect would impact both narrative persuasion theories similarly are plausible.

Considering theory, H5_c predicted that need for affect interacts with identification significantly predicting story-consistent attitudes. Similar to the interaction analysis
performed for 5_b, the main effect of identification significantly impacted story-consistent attitudes, but the interaction of identification and need for affect did not provide a significant beta weight, therefore H5_c was unsupported. These results may be due to the nature of the film, or perhaps high need for affect individuals are less inclined to identify with characters. High need for affect individuals are often characterized as individuals who hold strong attitudes (Maio & Esses, 2001). This could be a possible explanation for why transportation and identification did not interact with need for affect in significantly impacting attitude change. Bartsch, Appel, and Storch (2010) found that individuals high in need for affect were more likely to obtain higher levels of negative valence after watching an emotional film. Negative emotions felt while viewing the stimulus film (e.g. disgust or contempt for the characters) may have interfered with transportation and identification, resulting in the counter-arguing processes that negate the effects of transportation and identification on attitude change.

**Sensation Seeking and Transportation**

Researchers have deduced that sensation seeking personality factors may predict media preferences (Banerjee et al., 2008; Conway & Rubin, 1991; Perse, 1996). “Sensation seeking is defined as the need for complex and ambiguous experiences and the willingness to take risks to obtain those experiences” (Banerjee et al., 2008, p. 89). Per Banerjee et al. (2008) sensation seekers require more arousing media choices and enjoy emotionally intense media. Hoffner and Levine (2005) state that high sensation seeking individuals enjoy violent films such as horror and suspense. Increases in sensation seeking behavior were predicted to significantly increase reported transportation due to the arousing experience that intense emotions and the journey into a
narrative may elicit. Jensen, Imboden, and Ivic (2009) stated that the immersive processes of transportation would stimulate arousal which is likely to attract sensation seeking individuals. Additionally, previous research has reported that those who report sensation seeking behavior are more likely to enjoy media such as drama, horror, and suspense (Banerjee et. al., 2008; Hoffner & Levine, 2005; Oliver & Sanders, 2004) the stimulus film, ‘#nightslikethese’ was expected to cater to sensation seeking individuals with its violent and suspenseful nature, surprisingly it did not. Results did not provide significant evidence that sensation seeking predicted transportation. Therefore, hypothesis 6a was not supported.

Additionally, sensation seeking did not interact with transportation on story-consistent attitudes. Sensation seeking individuals are characterized as those who enjoy thrill and adventure seeking, enjoy wild parties and sexual escapades, and crave excitement. Perhaps individuals who report sensation seeking behavior are not the types of individuals who are willing to sit still and watch a film.

**Summary of Results**

The overall findings for this research suggest that perceptions of a suspenseful narrative, and personality indicators such as high empathy, and high need for affect can significantly predict transportation. When developing the transportation scale Green & Brock (2000) considered individual’s emotional involvement, attention, feelings of suspense, and lack of awareness of their real-world surroundings. Evidence from this study provides background for not only the emotional involvement (via empathy and need for affect), but also the need for a story that may leave consumers on the edge of their seats, to focus their attention. Empathy, need for affect, and perceived suspense did
not interact with transportation to moderate the relationship of transportation on attitude change. A simple explanation as to why this may not have worked is because these dimensions are already included in the original transportation-imagery model. This may indicate further exploration via a mediation analysis.

Sensation seeking did not significantly predict transportation nor did it interact with transportation to moderate its relationship with story-consistent attitudes. Sensation seeking behavior may be related to specific media choices, but for purposes of this study sensation seekers were not aroused, nor were they transported by the stimulus material. A more arousing type of stimulus may be needed to engage sensation seekers, or sensation seeking individuals may not be a likely candidate for transportation. Researchers have found that sensation seeking individuals are likely to watch television as a background activity while doing other activities (e.g. talking, reading, and eating) they may also use the remote to change channels frequently (Perse, 1996). This means that it may be difficult to engage sensation seeking types of individual’s attentional focus long enough to transport them into the narrative world.

Additionally, empathy and need for affect did not predict identification nor did these variables interact with identification to moderate its relationship on story-consistent attitudes. These results were surprising as emotions are important in the persuasion process (Hoeken & Sinkeldam, 2014). Identification is said to influence attitudes when individuals identify with a character and take on the opinions and attitudes expressed by that character, or individuals form attitudes due to a character’s experiences (Hoeken & Sinkeldam, 2014). Perhaps the characters in the stimulus film were hard for individuals to identify with. Accordingly, individuals may not have identified with characters if the
narrative was not realistic (Green, 2004). Hoeken and Sinkeldam found significant main effects for character likeability and identification with a main character, signifying that individuals are more likely to identify with a likeable character. The characters in the film ‘#nightslikethese’ were not rated on a likability scale. Hindsight, results for likability would have been an interesting contribution for possible evidence as to why identification was not related to empathy or need for affect. Hoeken and Sinkeldam (2014) also found that perceived realism, character likability, and identification all mediated effects on attitudes. It may be interesting to conduct a mediation analysis of identification on empathy and film attitudes using another type of stimulus. Finally, it is interesting to note that the main effects for identification and transportation both contributed significantly to story-consistent attitudes. This shows the strength of the theoretical background in that both transportation and identification significantly predict attitudes. Gender also significantly predicted film attitudes, meaning that females were significantly more likely to have an impact on attitudes toward the film topic. The main characters in the film were both females, so maybe it was easier to females to identify with the characters, or perhaps feel more empathy for the characters in the film. Researchers have found that women report significantly higher transportation scores than men (Green & Brock, 2000; Van Laer et al., 2014). Women were also found to have differences in empathy, as Van Laer et al. (2014) noted: “women are more apt to empathize than men, and to generate more emotions in response to a story, whereas men are more descriptive and distant” (p. 804).

Limitations

The current study was conducted at two points in time. Personality differences such as empathy, need for affect, and sensation seeking were assessed in an initial survey
to avoid sensitization; this lead to a high attrition rate. The film did not appear to have several elements that are necessary for transportation, such as well-developed characters and an engaging story line (Green & Brock, 2000). Additionally, the characters in the film did not appear realistic and were not easy to identify with, accordingly, the intended message may of the film may not have been understood (Green, 2008). These issues with the stimulus may have induced counter-arguing behavior and affected participant’s ability to be transported by the film.

As mentioned early in the results section, a pre-test questionnaire of attitudes towards social media and attitudes towards adolescents (i.e. story-consistent attitudes) were not assessed. A pre-test of attitudes prior to watching the film would have been helpful in obtaining evidence of the films impact on attitudes. Unfortunately, this study was only able to examine story-consistent attitudes, rather than actual attitude change about social media effects on pre- and post-test measures. This may have been the largest limitation of the study overall, as there is no pre-measure of attitudes.

Another possible limitation to this study was the shortened scale items. The original need for affect scale (Maio & Esses, 2001) consisted of twenty-six items, a shortened need for affect scale (Appel, Gnambs, & Maio, 2012) consisting of ten items was used instead. Reiners et al., (2011) questionnaire of cognitive and affective empathy scale was shortened using the reported factor loadings from the Reiners et al. (2011) study. The original scale consisted of thirty-one items assessing five components of empathy (cognitive empathy: perspective taking, online simulation, and affective empathy: emotion contagion, peripheral responsivity, proximal responsivity). The two highest reported factor loadings from each of the affective empathy components and the
three highest reported factor loadings from each of the cognitive empathy components were used as a twelve-item shortened empathy measurement scale. Finally, the original sixty-four item sensation seeking scale assessing the thrill and adventure, experience seeking, disinhibition, and boredom susceptibility (Zuckerman, 1971) was scrapped and a shortened, eight-item, sensation seeking scale (Lopez-Bonilla & Lopez-Bonilla, 2010) was used instead. Using the original items would have been preferred, but time considerations (for participants) impacted the decision to use shortened scales for the purposes of this study.

**Future Directions**

**Additional Analyses.** Although it was not predicted, a bivariate regression provided evidence that suspense could predict film attitudes. Additional analyses of the other variables included in this thesis (empathy, need for affect, and sensation seeking) found that empathy could significantly predict film attitudes. As transportation strongly predicts film attitudes, and increases of suspense and empathy both predict transportation, a mediation analysis may provide a follow-up of interesting results.

The mediation relationship of empathy, need for affect, perceived suspense, and identification were not explored in this study. As all these items are significantly correlated with transportation, future research should analyze the possible mediation relationship of these variables on transportation and story-consistent attitudes. Especially perceptions of suspense and empathy, as both items were found to significantly predict attitudes. A mediation analysis could help us to understand why individual difference variables such as perceptions of suspense and empathy affect attitudes. Identification was found to significantly predict film attitudes. Identification has often been linked to
transportation in research, and analyses showed that both identification and transportation impact story-consistent attitudes. An interesting finding of the additional analyses were the near bi-directionality of transportation and identification and the relationships between increases of perceived suspense predicting both transportation and identification. Further exploration of gender differences on empathy and transportation resulting in story-consistent attitudes may provide interesting results, as evidenced in each moderation analysis, gender, primarily being female, was found to significantly predict film attitudes.

**Future Research.** Future exploratory studies of transportation may want to consider differences in film versus text narratives. Additionally, future studies may want to include both male and female protagonists within their stimulus material to test the relationship of gender on identification with male and female characters. The exploration of characters’ gender and effects of individual participant’s differences in identification may provide interesting results. Researchers may want to consider using both transportation and identification items future analyses. Perceived realism should be explored, in terms of character identification and transportation. The relationship to realistic, relatable characters may influence identification, and transportation narrows the attentional focus, resulting in the possibility of strong story-consistent attitudes. If a narrative doesn’t have aspects of external or narrative realism it may be difficult for receivers to become immersed into the storyline. The characters in the stimulus used did not seem realistic as they didn’t reflect normative behavior, and the content of the film did not make sense. This may have triggered counter arguing which would have affected the study. Green (2004) suggests that if individuals perceive a narrative as realistic (in
that it could happen in the real world) then it will influence reader’s transportation. “It seems plausible that stories we consider authentic and true to life are most engaging, on the contrary, successful stories—those that engage us the most, are often both fictional and unrealistic” (Busselle & Bilandzic, 2008 p. 256).

This is not to say that a film must be realistic to employ transportive qualities. Just as important as external realism (the realistic value of the story), narrative realism is affected by story consistency. Many fantasy type books and films (Enders Game, The Lord of the Rings, and Star Wars) have qualities of transportation. These types of narratives are not realistic or comparable to our ordinary lives, what is important in these stories is the consistency of the narrative. If the content has an explanation, and it’s logical within the context of the narrative, then narrative realism will have an impact on transportation. Per Busselle & Bilandzic (2008), the more mental capacity is used to construct a visualization of the narrative, the more engaged a viewer or reader will become; but, the more energy that is used to critically analyze the information the less engaged (thus less transported) the participant will be into a narrative.

Academic researchers should strongly consider using a pretest-posttest design for assessing individuals attitude change rather than story-consistent attitudes for a more accurate measure of persuasion. Additionally, each of the variables explored in this study may have had a stronger impact if the original scales were used. Future research should consider using a pre-test and assessing individual differences in empathy (per Reiners et al., 2011 full length scale), and a post-test assessing transportation, identification, and attitudes after watching a film. Differences in film length may also provide an interesting comparative study, researchers should consider the length of stimulus material when
conducting transportation research. Stimulus material should be chosen carefully and researchers should be cautioned to choose stimuli with a well-developed and interesting plot, featuring fully developed characters both positively and negatively valanced.

Future research should explore transportation in the current media environment to determine if differences in serial portrayals viewed either by binge watching or waiting for weekly episodes to air affect suspense or dampen transportation over time. Story-consistent attitudes may be strong in hard hitting portrayals, such as the Netflix serial “13 Reasons Why.” Comparing individuals who binge watch to those who are exposed to serials over longer periods of time would be interesting in this context.

**Conclusion**

Although the interaction effects explored did not significantly moderate transportation, affecting story-consistent attitudes, the main effects provided evidence that the theoretical frameworks of transportation and identification share some similarities. Transportation and identification shared a very high correlation and both significantly impacted attitudes towards the film topic. Additionally, gender impacted differences in both transportation and identification rather significantly. Perceptions of suspense, empathy, and need for affect contributed to the overall model predicting transportation, but did not moderate transportation on story-consistent attitudes. This does not mean that these variables do not fit within the overall model, a mediation analysis may provide some interesting details as to how these variables affect the transportation-imagery model and the resultant attitudes after exposure to a stimulus. Overall, the current research produced several findings, increases in perceptions of suspense, empathy, and need for affect, contributed to predicted increases in transportation. These
individual variables could be explanatory dimensions for the overall model. Future studies should continue to look at these variables with more appropriate stimulus materials and take into account the methodological suggestions to make a more fine-tuned analysis of the variables mentioned in this particular study.
REFERENCES


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APPENDICES
APPENDIX A

QUESTIONNAIRE

SURVEY ONE:

PERSONALITY ASSESSMENT

SECTION A: EMPATHY

For the following questions think about your communication with others and respond accordingly. Please indicate your level of agreement for the following questions by checking a number between 0 and 10, where 0=strongly disagree and 10=strongly agree.

A1. I can easily work out what another person might want to talk about.
0 1 2 3 4 5 6 7 8 9 10

A2. I can tell if someone is masking their true emotion.
0 1 2 3 4 5 6 7 8 9 10

A3. I can sense if I am intruding, even if the other person does not tell me.
0 1 2 3 4 5 6 7 8 9 10

A4. I am happy when I am with a cheerful group and sad when others are glum.
0 1 2 3 4 5 6 7 8 9 10

A5. It worries me when others are worrying and panicky.
0 1 2 3 4 5 6 7 8 9 10

A6. I try to look at everybody’s side of a disagreement before I make a decision.
0 1 2 3 4 5 6 7 8 9 10

A7. Before criticizing somebody, I try to imagine how I would feel if I was in their place.
0 1 2 3 4 5 6 7 8 9 10
A8. When I am upset at someone, I usually try to “put myself in his shoes” for awhile.

A9. I usually stay emotionally detached when watching a film. -Reverse Scored

A10. I am usually objective when I watch a film or play, and I don’t often get completely caught up in it. -Reverse Scored

A11. I often get emotionally involved with my friends’ problems.

A12. Friends talk to me about their problems as they say that I am very understanding.

SECTION B: NEED FOR AFFECT

For the following questions, please consider how you feel about emotions and respond accordingly. Please indicate your level of agreement for the following questions by checking a number between 0 and 10, where 0=strongly disagree and 10=strongly agree.

B1. If I reflect on my past, I see that I tend to be afraid of feeling emotions. -Reverse Scored.

B2. I feel that I need to experience strong emotions regularly.

B3. Emotions help people get along in life.
B4. I find strong emotions overwhelming and therefore try to avoid them. -Reverse Scored.
0 1 2 3 4 5 6 7 8 9 10

B5. I think that it is important to explore my feelings.
0 1 2 3 4 5 6 7 8 9 10

B6. I would prefer not to experience either the lows or highs of emotion.
0 1 2 3 4 5 6 7 8 9 10

B7. I do not know how to handle my emotions so I avoid them. – Reverse Scored
0 1 2 3 4 5 6 7 8 9 10

B8. It is important for me to be in touch with my feelings.
0 1 2 3 4 5 6 7 8 9 10

B9. It is important for me to know how others are feeling.
0 1 2 3 4 5 6 7 8 9 10

B10. Emotions are dangerous – they tend to get me into situations that I would rather avoid. -Reverse Scored.
0 1 2 3 4 5 6 7 8 9 10

SECTION C: SENSATION SEEKING.

For the following questions please consider how strongly you agree with the following behavior items. Please indicate your level of agreement for the following questions by checking a number between 0 and 10, where 0=strongly disagree and 10=strongly agree.

C1. I would like to explore strange places.
0 1 2 3 4 5 6 7 8 9 10
C2. I would like to take off on a trip with no pre-planned routes or timetables.

C3. I get restless when I spend too much time at home.

C4. I prefer friends who are excitingly unpredictable.

C5. I like to do frightening things.

C6. I would like to try bungee jumping.

C7. I like wild parties.

C8. I would love to have new and exciting experiences, even if they are illegal.

Please answer the following background questions about yourself.

1. Are you male or female?
   Male___ Female___

2. What is your age?

3. How would you describe your racial/ethnic background?

4. What is your name?

5. Please indicate the course for which you wish to receive credit/extra credit (as offered by your instructor).
SURVEY TWO:
FILM RESPONSE

SECTION D: FILM ASSESSMENT

Please answer the following questions to assess how much attention was paid to detail while watching the film. If you cannot answer the following questions please consider watching the film again.

1. Have you seen this film prior to participation in this survey?
   Yes___ No___

2. One of the main characters takes a photo of the convenience store clerk’s hands.
   True___ False___

3. The main characters stop at McDonald’s for a snack.
   True___ False___

SECTION E: ATTITUDES TOWARDS SOCIAL MEDIA

E1. Individuals loose morality may be attributed to social media usage.
   0 1 2 3 4 5 6 7 8 9 10

E2. A constant state of internet connectivity may have some negative effects on adolescents.
   0 1 2 3 4 5 6 7 8 9 10

E3. Social media usage may have the capacity to desensitize people.
   0 1 2 3 4 5 6 7 8 9 10

E4. Social media may be responsible for a decline of compassion in individuals.
   0 1 2 3 4 5 6 7 8 9 10
E5. Adolescents may be less empathetic due to unlimited exposure to social media.

0 1 2 3 4 5 6 7 8 9 10

E6. Individuals are considered more narcissistic due to exposure to social media.

0 1 2 3 4 5 6 7 8 9 10

E7. Individual attitudes have been changed due to impacts of social media.

0 1 2 3 4 5 6 7 8 9 10

SECTION F: ATTITUDES TOWARDS ADOLESCENTS

For the following questions please consider the film you watched and indicate your level of agreement where 0=strongly agree and 10=strongly agree.

F1. Adolescents should have regular mental health screenings.

0 1 2 3 4 5 6 7 8 9 10

F2. Adolescents have a fickle sense of morality.

0 1 2 3 4 5 6 7 8 9 10

F3. Adolescents should be cautious of anyone, including close friends.

0 1 2 3 4 5 6 7 8 9 10

F4. Adolescents are untrustworthy.

0 1 2 3 4 5 6 7 8 9 10

F5. Parents should be held responsible for the actions of their adolescents.

0 1 2 3 4 5 6 7 8 9 10

SECTION G: AUDIENCE RESPONSE ITEMS.

We would like to know the level of focus you had on the film. Please indicate how much you disagree or agree with each of the following statements by checking one number between 0 and 10, where 0=strongly disagree and 10=strongly agree.
G1. It was fun for me to watch this movie.
0 1 2 3 4 5 6 7 8 9 10

G2. I had a good time watching this movie.
0 1 2 3 4 5 6 7 8 9 10

G3. The movie was entertaining.
0 1 2 3 4 5 6 7 8 9 10

G4. I found this movie to be very meaningful.
0 1 2 3 4 5 6 7 8 9 10

G5. I was moved by this movie.
0 1 2 3 4 5 6 7 8 9 10

G6. The movie was thought provoking.
0 1 2 3 4 5 6 7 8 9 10

G7. The movie will stick with me for a long time.
0 1 2 3 4 5 6 7 8 9 10

G8. I know I will never forget this movie.
0 1 2 3 4 5 6 7 8 9 10

G9. The movie left me with a lasting impression.
0 1 2 3 4 5 6 7 8 9 10

G10. I was at the edge of my seat while watching this movie.
0 1 2 3 4 5 6 7 8 9 10

G11. This was a heart-pounding kind of movie.
0 1 2 3 4 5 6 7 8 9 10
G12. The movie was suspenseful.

0 1 2 3 4 5 6 7 8 9 10

G13. Suspense is my favorite genre.

0 1 2 3 4 5 6 7 8 9 10


0 1 2 3 4 5 6 7 8 9 10

SECTION H: TRANSPORTATION

For the following items please indicate how much you disagree or agree with the following statements by checking one number between 0 and 10, where 0=strongly disagree and 10=strongly agree.

H1. While I was watching the movie, activity going on in the room around me was on my mind. -Reverse Scored

0 1 2 3 4 5 6 7 8 9 10

H2. I felt I was part of the events portrayed in the movie.

0 1 2 3 4 5 6 7 8 9 10

H3. I was mentally involved in the movie while watching it.

0 1 2 3 4 5 6 7 8 9 10

H4. Now that the movie has ended, I find it easy to put it out of my mind.

0 1 2 3 4 5 6 7 8 9 10

H5. As I was watching it, I wanted to know how the movie would end.

0 1 2 3 4 5 6 7 8 9 10

H6. The movie affected me emotionally.

0 1 2 3 4 5 6 7 8 9 10
H7. I find myself thinking of ways the movie could have turned out differently.

0 1 2 3 4 5 6 7 8 9 10

H8. I found my mind wandering while watching the movie. -Reverse Scored.

0 1 2 3 4 5 6 7 8 9 10

H9. I have a vivid mental impression of the main characters (reflecting on the movie after it ended).

0 1 2 3 4 5 6 7 8 9 10

H10. While watching the movie, I could easily picture the events in it taking place.

0 1 2 3 4 5 6 7 8 9 10

H11. The events in the movie are relevant to my everyday life.

0 1 2 3 4 5 6 7 8 9 10

H12. The events in the narrative have changed my life.

0 1 2 3 4 5 6 7 8 9 10

SECTION I: CHARACTER IDENTIFICATION

For the following items please indicate how much you disagree or agree with the following statements by checking one number between 0 and 10, where 0=strongly disagree and 10=strongly agree.

I1. I felt emotionally involved with the main character’s feelings.

0 1 2 3 4 5 6 7 8 9 10

I2. I understood how the main character’s act, think, and feel.

0 1 2 3 4 5 6 7 8 9 10

I3. I understood the main character’s emotions.

0 1 2 3 4 5 6 7 8 9 10
I4. I imagined how I would act if I were the main characters.

0 1 2 3 4 5 6 7 8 9 10

I5. I was concerned about what was happening to the main characters.

0 1 2 3 4 5 6 7 8 9 10

I6. I tried to imagine the main character’s feelings, thoughts and reactions.

0 1 2 3 4 5 6 7 8 9 10

I7. I tried to see things from the main character’s point of view (either one).

0 1 2 3 4 5 6 7 8 9 10

I8. I felt as if I were the main character.

0 1 2 3 4 5 6 7 8 9 10

I9. I, myself experienced the main character’s emotional reactions.

0 1 2 3 4 5 6 7 8 9 10

I10. I had the impression of living the main character’s story myself.

0 1 2 3 4 5 6 7 8 9 10

I11. I identified with the main characters.

0 1 2 3 4 5 6 7 8 9 10

Please rate how strongly you identified with the main characters of the short film where 0=did not identify with the character and 10=strongly identified with the character.

I12. The convenience store clerk.

0 1 2 3 4 5 6 7 8 9 10

I13. Kallie, the girl in the hat, white tank top, and sweatpants.

0 1 2 3 4 5 6 7 8 9 10
I14. Rowan, the girl in the flannel top and shorts.

0 1 2 3 4 5 6 7 8 9 10

Rate each character’s behavior in terms of the extent to which it violated or upheld your perspective of acceptable behavior. Where 0=completely unacceptable behavior and 10=completely acceptable behavior. (Morality)

I15. The convenience store clerk.

0 1 2 3 4 5 6 7 8 9 10

I16. Kallie, the girl in the hat, white tank top, and sweatpants.

0 1 2 3 4 5 6 7 8 9 10

I17. Rowan, the girl in the flannel top and shorts.

0 1 2 3 4 5 6 7 8 9 10

SECTION J: MEDIA USAGE

For the following items please indicate how much you disagree or agree with the following statements by checking one number between 0 and 10, where 0=strongly disagree and 10=strongly agree.

J1. Social media is part of my everyday life.

0 1 2 3 4 5 6 7 8 9 10

J2. I am proud to tell people I’m on social media.

0 1 2 3 4 5 6 7 8 9 10

J3. Social media has become part of my daily routine.

0 1 2 3 4 5 6 7 8 9 10

J4. I feel out of touch when I haven’t logged onto social media for awhile.

0 1 2 3 4 5 6 7 8 9 10
J5. I feel I am part of the social media community.

0  1  2  3  4  5  6  7  8  9  10

J6. I would be sorry if Facebook shut down.

0  1  2  3  4  5  6  7  8  9  10

J7. Approximately how many total Facebook friends do you have?

J8. In the past week, on average, approximately how much time per day have you spent actively using social media?

EXTRA CREDIT VALIDATION

In order to receive credit for participating, what is your name?

Indicate the course (e.g. COM 101, COM 320) for which you wish to receive credit/extra credit (as offered by your instructor)?

Thank you for completing this survey!
APPENDIX B

SURVEY KEY

Survey One: 2017 Personality Assessment
Questionnaire Key

A1-A12 Shortened Empathy Scale selected items taken from Reniers et al., 2011
A1-A3 Perspective Taking: Cognitive Empathy
A4-A5 Emotion Contagion: Affective Empathy
A6-A8 Online Simulation: Cognitive Empathy
A9-A10 Peripheral Responsivity: Affective Empathy
A11-A12 Proximal Responsivity: Affective Empathy

B1-B10 A short measure of the Need for Affect (Appel et al., 2012)
   Avoid Affect Subscale: B1, B4, B6, B7, B10
   Approach Affect Subscale: B2, B3, B5, B8, B9

C1-C8 Shortened Sensation Seeking Scale (Lopez-Bonilla & Lopez Bonilla, 2010)
   Experience Seeking Subscale: C1, C2
   Boredom Susceptibility Subscale: C3, C4
   Thrill and Adventure Seeking Subscale: C5, C6
   Disinhibition Subscale: C7, C8

D1-D3 Demographics
D4-D5 Extra Credit Validation items

References:
   DOI:10.1080/00223891.2012.666921

Survey Two: 2017 Film Response Questionnaire

Questionnaire Key

D1-D3 Manipulation Check: attentional items that may eliminate participants from experiment who were not paying attention to the film.

E1-E7 Attitudes toward social media (story-consistent attitudes)

F1-F5 Attitudes toward adolescents (story-consistent attitudes)

G1-G12 Audience Response items selected from Oliver & Bartsch, 2010

Fun Subscale: G1, G2, G3
Meaningful Subscale: G4, G5, G6
Lasting Impression Subscale: G7, G8, G9
Suspense Subscale: G10, G11, G12

G11-G12 Items assessing if suspense is a favored media choice

H1-H12 Transportation Scale items selected from Green & Brock, 2000

I1-I11 Character identification scale, items selected from Igartua & Barrios, 2012

Emotional Empathy Subscale: I1, I2, I3
Cognitive Empathy Subscale: I4, I5, I6, I7
Character Merging Subscale: I8, I9, I10, I11

I12-I14 Items measuring how strongly participants identified with specified main characters.

Avoid Affect Subscale: B1, B4, B6, B7, B10
Approach Affect Subscale: B2, B3, B5, B8, B9

I15-I17 Items measuring morality based on character behavior acceptability, adapted from Eden et al., 2014.

J1-J8 Facebook Intensity Scale adapted to measure social media usage, items selected from Ellison et al., 2007.

References


10.1515/comm.2010.019

## APPENDIX C
### CORRELATIONS

Pearson’s Correlations Among Variables

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Notes: ** p < .01, *p < .05; two-tailed
APPENDIX D

PATH MODELS

Figure 1: Path model of proposed relationships.
Figure 2. Path model of predicted and significant variables.