The Relationship Between Reading, Character Morality, and Narrative Empathy

An Honors Thesis (PSYS 499)

By

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Abstract

Reading and empathy have been empirically linked (Bal & Veltkamp, 2013; Dodell-Feder & Tamir, 2018; Mumper & Gerrig, 2017; Van Lissa & Durren, 2016), with past findings showing reading can increase empathy. The Affective Disposition Theory (ADT) states that enjoyment of a story depends on valence of character morality (Raney et al., 2009). The current study adapted the ADT to literature by exploring how transportation, rather than enjoyment, into a story could impact participant’s empathy toward immoral characters. Participants read one version of a short story in which the main character either engaged in moral behaviors (e.g., telling the truth) or immoral behaviors (e.g., lying) and experienced a difficult situation at the end of the story. Participants’ state empathy was measured with 14 Likert scale questions (e.g., “I wanted different outcomes for the character”), their trait empathy was measured with the Interpersonal Reactivity Index, and their transportation was measured with 12 Likert scale questions.

Participants liked the moral character more than the immoral character. Character liking was positively correlated with state empathy scores in both conditions. There was no significant positive correlation between transportation and state empathy, which is inconsistent with previous research (Johnson, 2012). The current study found that readers expressed higher levels of empathy for the moral character than the immoral character. The implications from this study suggest that type of character may have a positive or negative effect on empathy levels, and content of stories have a strong impact on empathetic development.

Keywords: reading, morality, characters, narrative empathy, trait empathy, transportation, Affective Disposition Theory
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Process Analysis

This project began to manifest after I took a cognition course my junior year taught by Dr. Kristin Ritchey. The course taught me about how our brains use several different processes, either in rapid succession or simultaneously, for everyday tasks. Before this course, it had never occurred to me how remarkable any of our actions are, but in particular reading—which has always held a special place in my heart. Before I changed my major to Psychological Science, I was an English Education major. It was important to me to find a way to blend my two passions into one cohesive thesis project that would reflect my academic success during my undergraduate career at Ball State. It was through that goal that my project on the relationship between reading and empathy began.

After contacting Dr. Ritchey and telling her I wanted to research some type of phenomenon related to reading for my thesis, we sat down and spent the beginning of fall semester 2019 to craft my research question. This required reading several articles, having Dr. Ritchey read them as well, and then meeting weekly to discuss my progress and the direction of my project. As I read, I found myself drawn to the topic of empathy and reading. From there, I would read articles and draft my literature review and meet with Dr. Ritchey every week to discuss. At the end of the fall semester I had completed my literature review research, drafted a method section, and obtained IRB approval. When spring semester began, I spent the first three months collecting data, and then I spent another month analyzing that data in SPSS. The project before you is the result of that labor.

This project taught me that research is often a messy, long, and complicated process. The paper you are about to read is the result of months of trial and error. I think sometimes research is thought of as this beautiful, polished, and perfect process. Certainly, the results of research
should be, but the process itself is one of the most challenging tasks I have accomplished during my undergraduate career. This paper is a testament of that labor. I believe that these efforts were not in vain. These results are unique, and I hope they pave the way for future research into the topic on empathy for immoral story characters. To me, this project means that studying how reading impacts our empathy has real world implications. It is imperative that we begin reading at a young age and foster that skill throughout our lives. Reading has been connected to increased empathy and pro-social behaviors. Although my results did not reflect that we can empathize with immoral characters, I am not giving up on the hope that maybe one day we will.
The Relationship Between Reading, Character Morality, and Narrative Empathy

Ancient philosophers have long debated the importance of reading. One of the earliest concerns regarded the impact of reading on reader morality. Plato, for example, found that poets often included narratives of immoral individuals finding joy in their wrongdoings as long as they were able to ‘get away with it.’ Due to these themes, which he argued promoted immoral behaviors, Plato discouraged reading (Mumper & Gerrig, 2017). In the modern world, a more liberal approach has been adapted. Reading is widely accepted as not only a positive behavior, but one associated with intelligence. Reading has even been empirically studied, with researchers finding that engaging with literature improves social cognitive skills, as well as enhances the ability to empathize with others (Bal & Veltkamp, 2013; Dodell-Feder & Tamir, 2018; Mumper & Gerrig, 2017; Van Lissa & Durren, 2016).

Throughout our lives, we experience the emotions of others. We cry at sad movies, get angry when someone we love is hurt, and rejoice when our friend excitedly tells us they are getting married. This ability to feel with others is known as empathy. There are several factors that influence our capability to empathize, and how much empathy we exude. For instance, spending time with those who are different than us, and asking others how they are feeling are two ways in which we practice empathy. In addition to how we live our lives, various outside factors also impact our empathy. One such factor is the media. Television, movies, and literature have been found to engage an individual enough to warrant affective empathy (Raney et al., 2009). This ability to have empathy for fictional characters makes it easier to scientifically study the true impact of media on an individuals’ empathy levels. Utilizing literature, such as narrative texts, is one way to measure an individual’s ability to transport into a work of fiction and experience affective empathy. At its core, empathy is a cognitive ability that we spend our entire
lives developing through practice. Reading has been empirically found to be an effective practice for those who wish to enhance their empathy.

While several studies have considered how reading and empathy are related, most studies focus on topics such as how type of genre impacts state empathy, what role aesthetics play, personal experiences, and the type of content included in the reading (Bal & Veltkamp, 2012; Gillioz et al., 2012; Koopman, 2015; Mumper & Gerrig, 2017). There is a lack of studies examining the types of characters portrayed in stories. In particular, character morality is an area in which there has been little research (Dodell-Feder & Tamir, 2018; Green & Brock, 2000; Raney et al., 2009). Character morality could prove to be a significant factor in whether an individual is able to empathize with a character. Specifically, the current study will investigate whether a fictional character’s moral or immoral actions affects readers’ empathy for that character. For instance, are we able to empathize with immoral characters, or are they dislikeable to the point where empathy is suspended? To address this question, several facets of empathy are discussed below, along with other factors that affect readers’ experience with a text, including engagement, simulation, imagery, genre, and how individuals perceive the story.

**Empathy**

Empathy can be defined as the ability to understand and feel the emotions of others (Bal & Veltcamp, 2012; Gillioz et al., 2012, Koopman, 2016). There is a plethora of specific types of empathy, including, but not limited to: emotional contagion, cognitive, affective, trait, state, and narrative empathy. Cognitive empathy known as the ability to consider the world of another and grasp their perspective. Cognitive empathy is different from affective empathy. Whereas cognitive empathy is *considering* the point of view of another, affective empathy is the ability to *feel* compassion or sympathy for an individual (Johnson et al., 2013; Stansfield & Bunce, 2014).
This is not to say that cognitive empathy is without purpose. Cognitive empathy is often observed when an individual is unable to know the exact feelings of a character—such as a character from a different culture or race (Mar & Oatley, 2008). Affective empathy occurs when an individual is able to know how a character feels and experiences an emotional response toward the character elicited from reading the text.

It would be natural to assume that affective empathy is another term for emotional contagion, but the two are not the same. Whereas affective empathy is the ability to feel for, emotional contagion is when a reader experiences the same emotions as the character (Dodell-Feder & Tamir, 2018). Someone experiencing affective empathy may say “I feel sad for the character that lost their mom” but someone experiencing emotional contagion would say “I feel the pain of losing a loved one.” A further component of empathy is perspective taking, or, the ability to understand the way others think, feel, and behave (Johnson et al., 2013). Perspective taking is similar to other types of empathy, but is used to consider behavior as well as thoughts and emotions. (Koopman, 2015).

Although the presented empathy types are similar, the details within each type of empathy speak to separate reading experiences. These nuances can allow researchers to understand the specific types of empathetic response a reader has. For example, one reader may not feel along with the character, but is able to consider their situation. Another reader may fully become the character and understand their thoughts, behaviors, and emotions. The brief overview of the different types of empathy in this section serve as an introduction of how different definitions mean different experiences. The following sections will introduce, and discuss, the different types of empathy that will be measured in the current study.
**Trait and Narrative/State Empathy.** Trait and narrative empathy will be the main types of empathy measured in this study. Trait empathy is a person’s average empathy over a span of time, whereas state empathy is the individual’s level of empathy in a given moment (Stansfield & Bruce, 2014). Typically, trait empathy is an automatic empathetic response, and state empathy is when an empathetic response is triggered. Although trait empathy is a strong predictor of a readers’ ability to empathize with characters while reading a text, it is not a measure of immediate affective response (Koopman, 2016). Therefore, in studies measuring empathy elicited from texts, trait empathy is better used as a control measure to compare to state empathy scores. But it should also be recognized that individuals with high levels of trait empathy toward real individuals may be able to display high levels of empathy toward fictional characters (Koopman, 2015).

Most often, however, trait empathy is used as a measure of comparison, to see how much empathy increases or decreases in response to an event. This event could be reading stories. When a work of literature is used to elicit empathetic response, it is known as narrative empathy. Narrative empathy occurs when reading a work of literature incites an empathetic response in which the reader feels and experiences the emotions of fictional characters (Keen, 2006). This study will use narrative empathy as a measure of immediate affective response to a text. Please note that throughout this paper, narrative empathy may also be referred to as “state” empathy, due to the fact that it is an induced state resulting from reading a work of literature.

**Engagement**

Literature alone is not the cause for empathetic responses to texts, but rather the cognitive processes activated through reading. Engaging with a text is a complex, multi-faceted process that activates many different regions of the brain (Koopman, 2015). Readers must engage with a
text in order to be able to imagine, simulate, and transport themselves into the world of the story. Reading is an interactive process that requires working within a text—in other words, engaging with it. This interaction allows for exploration into the character, setting, and contexts of a story. Through engagement, readers can consider these concepts and embrace the behavior of a character, even when that behavior would not match the readers’ own (Johnson et al., 2013). This understanding, consideration, and suspension of judgement toward the character(s) allows readers to generate strong empathetic responses.

**Simulation and Imagery.** One component of engagement is simulation. Mar and Oatley (2008) state that simulation allows readers to experience the life of another, and sometimes a life that would have otherwise been impossible for them to experience (e.g. a white man reading about the struggles of an African-American male). Measuring simulation also allows researchers to ethically examine a response to a fictional text. For example, Koopman (2015) had participants read texts about suffering (e.g. depression) in order to measure the type of emotional response participants would display. Koopman (2015) found that reading texts about suffering activates cognitive processes that allow readers to interpret and understand what is happening. Part of these cognitive processes involve simulating a situation in order to better understand it.

Koopman (2015) also found that participants who had a personal experience with the content of the literature were able to relate to the text more easily compared to readers who did not have a personal experience with the content of the literature. This suggests that simulation alone may not be enough to warrant a strong empathetic response when compared to a true, prior experience with the subject matter. Therefore, while simulation is a component to engaging with a text it is not necessarily the best predictor of empathetic response (Koopman, 2015). Simulation may be one of the main reasons that people read, because it allows for individuals to
make-believe in a world different from their own. The simulation of social experience theory states that individuals read in order to simulate real-world experiences. This is done through reading fictional narratives (Johnson et al., 2013). This ‘simulating’ of another world is not only enjoyable, but has real world benefits. Simulation has been empirically found to promote pro-social behavior.

Johnson (2012) measured how reading fiction influenced if participants engaged in prosocial behavior. To measure this, the study had a researcher drop a pen on the ground at the end of the reading task. If a participant picked up the pen for the researcher, this was considered a display of pro-social behavior. Johnson (2012) found that when participants were transported into works of fiction, they were more likely to engage in pro-social behavior (i.e. “helping behavior”) compared to those who were not transported. Based on these findings Johnson (2012) concluded that social learning theory (learning through observation, imitation, and modeling) may also play a role in reading fiction. These findings provide real-world implications, that if reading does foster empathy, it may also influence social behaviors.

Simulation lends itself to imagery—another component of engagement. When reading activates this cognitive process, individuals mentally project themselves into the text. This projection allows readers to simulate the context of a story (Johnson et al. 2013). Once engagement allows readers to form mental images, their minds are primed for social simulation. Johnson et al. (2013) found that when a participant could produce some form of mental imagery as they read, they had a higher score of empathy than those who did not. Given that imagery is a component of engagement, these findings also support that the higher the level of engagement with a text, the higher the empathetic response. Additionally, fictional texts provide a way to measure how an individual interacts with a fictional characters’ experiences. In fact, it is
believed that readers metaphorically insert themselves into a work as they read—effectively becoming whatever fictional character has been presented (Van Lissa & Duuren, 2016). This transportation caused by high levels of engagement again supports that reading can allow readers to experience real-world social issues (Doddel-Feder & Tamir, 2018).

**Transportation**

Transportation is the amount to which an individual is able to insert themselves into a story (Jonson, 2012; Kaufman & Libby, 2012). Bal and Veltkamp (2013) define transportation as a mental process during which a reader expends all mental energy and capabilities on becoming focused with the narrative. As mentioned above, engaging within a text allows readers to generate vivid images of a text and simulate the aspects of the story. Transportation builds upon these elements to provide a ‘deeper dive’ mentally.

Transportation is one of the reasons why readers sometimes say they were “lost in a book.” Or, that they sat down to read and found that several hours have passed without them realizing. It seems logical that high levels of transportation are indicative of high levels engaging with a text, as well as imagery generation and simulation. Therefore, the current study focused on transportation. Given previous literature, it is a clear and complex process and findings suggest that empathetic experiences may differ greatly with each reading session. Still, more studies have found strong evidence that transportation provides consistent empathetic experiences and is a key component of measuring how reading impacts empathy.

Level of transportation has been empirically linked to empathy. Readers who are fully transported into texts understand the emotions of characters more than readers who are not fully transported into texts (McCreary & Marchant, 2017). Kaufman and Libby (2012), who refer transportation as experience-taking, also found that transportation levels impact empathy levels.
Bal and Veltkamp (2013) found that when individuals displayed high levels of transportation within a text, they were able to ‘become’ the character in the story, which is why they displayed higher levels of empathy. When readers were less transported into a text, (e.g. through becoming frustrated or fatigued from reading), they displayed a decrease in empathy measurement scores (Bal & Veltkamp, 2013).

Keen (2006) proposes that because reading improves social cognition, it has a strong moral benefit for individuals who read. However, Koopman (2015) cautions against using such idealistic outlooks in terms of reading’s impact on empathy, quoting Harriet Martineau: “readers are plentiful; thinkers are rare” (p. 430). This transportation encourages readers to engage in prosocial behaviors outside of reading, which may lead to individuals becoming better citizens who engage in moral behaviors after reading works of literature (Dodell-Feder & Tamir, 2018; Mumper & Gerrig, 2017).

Green and Brock (2000) examined what happens emotionally to readers when they become fully engaged in a work. They used three components: engagement, imagery, and emotion. Green and Brock (2000) found that when participants were more transported into a text, they reported a positive evaluation of the character depicted in the text. Additionally, they found that although some texts were labeled as fiction, it did not impact a readers’ ability to transport into the narrative. However, type of literary text (non-fiction vs. fiction) has been found to have different levels of empathetic response (Green & Brock, 2000). Relatedly, fiction promotes transportation more than the literary classics, expository writing, or non-fiction (Bal & Veltkamp, 2013; Van Lissa & Duuren, 2016). A study conducted by Bal and Veltkamp (2013) examined levels of transportation.
works of fiction scored higher on empathy measurements than participants who were transported into other types of texts.

**Genre of Literary Texts**

Genre of literary texts impacts amount of empathy individuals experience, with previous researchers finding that individuals score higher on empathy measures after reading fiction narratives compared to non-fiction narratives (Bal & Veltkamp, 2013). Fictional stories are easier for readers to engage with, transport into, and establish simulation of real-world experiences. It is easier for a reader to read a simulated real-world situation compared to an actual account because when individuals read fiction they tend to suspend disbelief. When a story is known to be fictional, rather than taking a moment to pause and decide if the events in a narrative are realistically possible, readers are more willing to accept unrealistic elements of a made-up narrative (Bal & Veltkamp, 2013). When individuals read non-fiction, they often spend extra mental energy to determine the plausibility of the story, decreasing amount of transportation and engagement within a text. Therefore, suspension of disbelief is unique to fictional texts (Bal & Veltkamp, 2013; Dodell-Feder & Tamir, 2018; Johnson et al., 2013).

**Affective Disposition Theory**

The Affective Disposition Theory states that enjoyment of a fictional drama is dependent upon how much viewers like a character, which is dependent on how viewers morally judge these characters. In other words, our attitudes about characters form as a result of our moral judgment of the motivations and actions of the characters. Therefore, viewers tend to like moral characters, and enjoy seeing moral characters in fictional dramas (Raney et al., 2009). The Affective Disposition (ADT) theory has been widely researched in the communications realm, and in general, film has been the main focus of these studies.
As one example, Raney et al. (2009) had participants watch shorts clips of movie trailers. The protagonist of the film was described as either a ‘hero’ or an ‘anti-hero’ by having participants read a short backstory on the character before watching the film clip. Raney et al. (2009) wanted to examine how individual’s valence of morality toward the character would influence enjoyment of the film. They predicted that individuals would judge the anti-hero more negatively, and also dislike the anti-hero more than the hero. Additionally, it was expected that the anti-hero film would be enjoyed less than the alternative film.

Raney et al. (2009) found that individuals had no significant difference between moral judgement between the anti-hero or the hero. Additionally, participants had no significant difference in level of character liking between the hero and the anti-hero. Participants also had no difference in levels of liking between either film. Therefore, the results of Raney et al. (2009) contradict the ADT. Raney et al. (2009) believes that it is possible that participants suspended moral judgement in order to enjoy the film. Because participants knew they were watching a fictional story, it is possible they decided to root for the character regardless of morality. This suggests the ability for participants to grant moral amnesty in certain situations—potentially while enjoying media. Given the findings by Raney et al. (2009), it is possible that other forms of media (not just film) could elicit similar responses toward immoral characters.

**Current Research**

The current study will focus on character morality’s impact on narrative empathy through using the Affective Disposition Theory and adapting it to relate to literary fiction. Raney et al. (2009) found that when character’s immoral behavior was justified, readers liked that character as much as characters showing moral behavior. The current study will extend Raney’s work by examining how fictional character’s moral or immoral actions influence readers’ empathy
towards those characters. Because this study seeks to adapt the ADT to literature, rather than film, certain parts of this will need to be changed. One major difference between this study and Raney et al. (2009) is that the current study is measuring empathy for characters with differing morality, rather than enjoyment of the reading itself. Instead of measuring enjoyment, the study will measure transportation and empathy levels. Transportation is similar to enjoyment of films, because the more an individual engages with a text, the more likely it is that they were invested in the story. This study will exchange enjoyment for transportation. It will measure if valence of character morality has an impact on character liking, transportation, and empathy toward characters.

Raney et. al (2009) found that participants enjoyed films more when outcomes matched what would be expected for a character with high morality. Despite the characters in the study displaying immoral behavior, the presence of a backstory allowed participants to justify the behavior as moral or not. The current study does not include such backstory, and features two types of characters: a blatantly moral and a blatantly immoral character. Based on the findings of Raney et al. (2009) it is believed that liking for the characters will be dependent on character morality and if immoral behaviors are justified. This study will not measure enjoyment, but it is important to note that the outcomes for both characters will be unfortunate, regardless of their moral or immoral behaviors. This is expected to illicit a high response in terms of empathy toward the moral character, because readers would anticipate a fortunate ending. However, it is still believed that participants may experience empathy toward immoral characters, despite having less liking for them, and it is likely that the ending will be consistent with what readers expect for an immoral character.
Based on the Affective Disposition Theory, the following hypotheses were developed for this study. First, it is hypothesized that morality will elicit a difference in terms of character liking, with participants liking the moral character more than the immoral character. Second, it is hypothesized that character liking will interact with state empathy scores. Specifically, higher levels of liking should result in high state empathy for both the immoral and moral conditions, while lower levels of liking could result in higher state empathy for the moral condition than the immoral condition. The third and fourth hypotheses predict that trait empathy will interact with state empathy scores. Specifically, individuals with high trait empathy should score high on state empathy in both conditions while individuals with low trait empathy should score high on state empathy for the moral condition and low on state empathy for the immoral condition. Finally, given the previous findings that transportation affects readers’ level of empathy for characters (Green & Brock, 2000; Johnson, 2012; McCreary & Marchant, 2017), the current study will examine whether the level to which characters transport into a text is correlated with their level of empathy for character. A positive correlation is predicted between readers’ ratings of transportation and their ratings of state empathy.

Method

Participants

There were nine males and 32 females included in this study. The majority of the participants were college students, excluding four participants who did not respond to the class standing demographic question. There were seven freshmen, seven sophomores, nine juniors, and 14 senior participants. There were 37 White/European/American/Caucasian, two Black/African American, one Hispanic/Latino/Latina, and one Multiracial participant(s). The age of participants ranged from 18 to 52.
**Cleaning Data.** There were 19 participants excluded from this study. Exclusion criteria was dependent on accuracy of the reading comprehension check questions and percentage of survey completed. A participant was excluded if they (1) did not answer any comprehension check questions, (2) missed two or more comprehension check questions, or (3) completed any less than 100% of the survey. In total, seven participants were removed for missing too many comprehension check questions, and 12 participants were removed for failing to answer any comprehension check questions. The reasoning behind this was that if participants could not accurately answer a short quiz about the reading, it was likely they did not read carefully enough to have an accurate measurement of empathy toward the character, and were not effectively transported into the narrative.

**Materials**

Participants were provided with informed consent information before the survey, which explained the procedures, tasks, benefits, and risks of participating in this study. The purpose of measuring empathy of the study was not included on the informed consent form in order to avoid demand characteristics, but they were informed that the purpose of the study was to collect their opinions about the reading. Additional materials included the Interpersonal Reactivity Index (IRI), Green and Brock’s (2000) Transport Narrative Questionnaire, and an adapted State Empathy Measurement scale reused from a study by Koopman (2015), the two versions of the experimental text, a short reading comprehension check, and a short demographic survey.

**IRI.** Several studies use the IRI as a reliable method of measuring empathetic response. Items on the IRI measure four separate dimensions of empathy: perspective-taking (PT), fantasy (FS), empathetic concern (EC), and personal distress (PD) (Mumper & Gerrig, 2017). The IRI is an effective measure for overall trait empathy of an individual, with an internal validity of $\alpha_s=.70$
to .78 (Konrath, 2013). It has been applied to a large amount of populations and has versions for several languages such as Chinese, Dutch, German, Italian, Japanese, Korean, Spanish, and Swedish (Davis, 1983; Konrath, 2013). It can also show if an individual is higher in one aspect of empathy over another (i.e. higher ratings for perspective taking when compared to empathetic concern). The IRI consists of 28 items, measured on a scale ranging from A to E, with A = Does Not Describe Me Well to E = Describes Me Very Well. For scoring, A = 0, B = 1, C = 2, D = 3, and E = 4. Some items are reverse scored to maintain reliability. For a list of the full IRI, see Appendix A.

**Moral and Immoral Conditions.** Participants were provided with two separate narratives to read. One group was randomly assigned to a moral condition, while the second group was randomly assigned to an immoral condition. Each condition tells the story of Alex, who exhibits either moral or immoral behaviors. Morality was defined by the way Alex behaves in both conditions. For example, in the immoral condition, Alex steals his mother’s debit card in order to buy a new gaming system. In the moral condition, Alex was rewarded a new gaming system for volunteering in the community but sacrifices his reward to help his mother pay the bills when her debit card is stolen.

For both conditions, the story contained an equal amount of “negative” words to “positive” words (e.g. smirked vs. smiled), as well as an equal amount of “moral” acts to “immoral acts” (e.g. stealing his mother’s debit card vs. giving up an expensive gift to help his mom pay the bills). Aside from the negative words and immoral/moral actions, each story is identical. This is to control for outside variables the stories could present. It is assumed that the manipulation of only actions and a select amount of words will influence the participant’s view
of the character, their liking for the character, and their empathetic response. For the moral and immoral conditions, see Appendix B and C, respectively.

**Reading Comprehension Check.** Participants answered four multiple choice questions related to the reading materials. The purpose of these questions was to ensure that participants understood the material. They also served as a way to measure if participants fully read the text. The reading comprehension check scores were also used to determine if participants data needs to be removed from the study. To see the full list of reading comprehension questions, see Appendix D.

**State Empathy Measure.** Whereas the IRI measures trait empathy, the state empathy scale will measure if participants had an immediate empathetic response to the text. Koopman (2015) created a scale \( \alpha=.85 \) to measure a reader’s empathetic response to a work of literature. It consists of six items that ask participants to respond directly to the text. This scale was adapted to fit to the nature of the texts presented in the current study. Koopman (2015) originally studied texts involving suffering, not morality. Therefore, five items were added to the questionnaire to reflect relevant information to the conditions presented. An example item from the original questionnaire would be “I felt pity for the woman”, and has been changed to “I felt pity for the character” for the purposes of this study. The items will be measured on a 7-point Likert scale where 1 = *Strongly Disagree* and 7 = *Strongly Agree*. Some items on the list are reverse coded, to see each question and coding, see Appendix E.

**Transport Narrative Questionnaire.** The study utilized the Transport Narrative Questionnaire developed by Green and Brock (2000) to measure the amount of transportation into a narrative each participant experiences. This scale has a Cronbach’s alpha of .76 (Green & Brock, 2000). The items on this scale are used to measure the extent to which a reader is drawn
into a narrative, and becomes “lost” in a story in order to imagine and see the story unfold before them and have emotional reactions to texts. The scale consists of 12 questions, and uses a 7-point Likert Scale where 1 = not at all and 7 = very much. To ensure validity of the scale, items 2, 5, and 9 are reverse coded. For a list of the Transport Narrative Questionnaire, see Appendix F.

**Demographic Survey.** Participants were asked five multiple choice and fill-in-the-blank questions regarding their gender, age, class standing, race, and whether English is their primary language. To see the full list of demographic questions, see Appendix G.

**Procedures**

This research used a between-subjects design. First, participants completed the IRI in order to gather a baseline empathy score. Although this posed a threat of priming the participant for the later state empathy measure, we perceived it to be more beneficial to secure a strong control for each group. Participants were then randomly assigned either the moral or immoral condition.

After reading, the participants were given a brief reading comprehension check to ensure they read the material and understood the story. Then, participants completed a state empathy/character liking scale adapted from a previous study conducted by Koopman (2015). After, the participants completed the Transport Narrative Questionnaire developed by Green and Brock (2000) to measure level of transportation, or degree of “getting lost” into the text. Participants were then given a short demographics survey about age, gender, etc. Finally, participants were directed to a separate screen in order to enter their email to be given an equal opportunity to earn one of 10, 30-dollar gift cards (if desired). This information was collected
through a separate screen in order to remove any personal information from the study. Participants were thanked for their participation at the completion of the survey.

**Results**

**Data Coding.** Nine IRI items were reverse coded. These scores were combined with the 19 IRI items that were not reverse coded to compute a mean trait empathy score for each participant. Trait empathy scores ranged from 2.75 to 4.36, with a mean score of 3.61 (.40). Six state empathy items were reverse coded. These scores were combined with the eight state empathy items that were not reverse coded to compute a mean state empathy score for each participant. State empathy scores ranged from 1.86 to 7 with a mean score of 4.66 (1.57).

**Hypothesis I & II.** It was hypothesized that morality will elicit a difference in terms of character liking, with participants liking the moral character more than the immoral character. An independent samples t-test was performed with character liking as the test variable and immoral/moral conditions as the grouping variable. Participants significantly liked the moral character ($M = 6.29, SD = 1.31$) more than the immoral character ($M = 2.45, SD = 1.15$), $t (39) = -9.96, p < .05$.

It was hypothesized that character liking would interact with empathy scores. Ideally, independent samples t-tests measuring the effect of text condition on empathy would be performed for participants reporting high levels of liking and low levels of liking to test this hypothesis. Due to lack of participants reporting high liking in the immoral condition, a Pearson correlation was performed for each condition to attempt a better estimation of how character liking and state empathy interacted. For each test, only participants in the given condition were selected. A Pearson correlation revealed a significant, positive correlation ($r = .56, p < .05$) between liking and state empathy for individuals in the moral condition. A Pearson correlation
revealed a significant, positive correlation between liking and state empathy for individuals in the immoral condition \((r = .48, p < .05)\).

**Hypothesis III & IV.** It was hypothesized that individuals with high trait empathy would score high on state empathy in both conditions. It was hypothesized that individuals with low trait empathy would score high on state empathy for the moral condition and low on state empathy for the immoral condition.

To test this hypothesis, participants were divided into categories of high and low trait empathy, with high trait empathy defined as having a mean score of 3.5 or higher on the IRI, and low trait empathy as having a mean score of 3.4 or below on the IRI. An independent samples t-test was performed, using only the high trait empathy participants, with state empathy scores as the test variable and immoral/moral conditions as the grouping variable. Individuals high in trait empathy had significantly less state empathy toward the immoral character \((M = 3.35, SD = .80)\), than individuals high in trait empathy who were assigned to the moral character \((M = 6.25, SD = .58)\), \(t(25) = -12.86, p < .05\).

A second independent samples t-test was performed including only participants low trait empathy scores, with state empathy scores as the test variable and immoral/moral conditions as the grouping variable. Individuals low in trait empathy had significantly less state empathy toward the immoral character \((M = 2.91, SD = .405)\) than individuals low in trait empathy who were assigned to the moral character \((M = 5.66, SD = .696)\), \(t(11) = -8.99, p < .05\).

**Hypothesis V.** To check for differences in level of transportation, an independent samples t-test was performed with transportation as the test variable and the immoral/moral conditions as the grouping variable. There was no significant difference in level of transportation
between the immoral group ($M = 4.19, SD = .61$) and the moral group ($M = 4.31, SD = .60$), $t(39) = -.62, p > .05$.

It was hypothesized that there would be a positive correlation between readers’ ratings of transportation and their ratings of state empathy. A Pearson correlation was performed comparing mean transportation levels and mean state empathy levels. Although trending in the predicted direction, the correlation was not significant, $r = .31, p = .051$.

**Exploratory Research Question.** Upon data collection, two additional research questions were explored. It was hypothesized that individuals who reported high levels of transportation into the text would have high state empathy in both the moral and immoral conditions. It was hypothesized that individuals who reported low levels of transportation into the text would have low state empathy in both the moral and immoral conditions. A high level of transportation was defined as having a means score of 4.5 or higher on the transportation measure, and a low level was defined as having a means score of 4.49 or lower on this measure.

To test this hypothesis, an independent samples t-test was performed using participants who reported high transportation, with state empathy as the test variable and immoral/moral groups as the grouping variable. Individuals high in transportation who were assigned to the immoral group had significantly less state empathy ($M = 3.667, SD = .795$) than individuals high in transportation who were assigned to the moral group ($M = 6.286, SD = .601$), $t(16) = -7.84, p < .05$.

A second independent samples t-test was performed using participants who reported low transportation, with state empathy as the test variable and immoral/moral conditions as the grouping variable. Individuals with low transportation who were assigned to the immoral group had significantly less state empathy toward the immoral character ($M = 3.046, SD = .616$) than
individuals with low transportation who were assigned to the moral group \((M = 5.683, SD = .639)\), \(t\) \((21) = -9.88 , p < .05\).

**Discussion**

**Hypothesis I.** It was hypothesized that morality would elicit a difference in terms of character liking, with participants liking the moral character more than the immoral character. This hypothesis was supported. The purpose of the immoral and moral conditions was to manipulate character liking to measure whether it would affect state empathy later on. Because this hypothesis was supported, it can be concluded that individuals strongly disliked the immoral character and strongly liked the moral character. This significant difference was needed to examine hypotheses II-V.

Raney et al. (2009) report that individuals tend to enjoy and like characters with moral attributes when enjoying a film—this is supported by ADT. As previously mentioned, ADT has traditionally been applied to film, but was adapted to fit this study in order to apply it to literature. Raney et al. (2009) found that when participants viewed films with moral characters, they tended to have higher levels of liking toward the moral character and anticipated that the moral character would have a good outcome at the finish of the story. The current study found results that are consistent with ADT in terms of character liking.

**Hypothesis II.** It was hypothesized that character liking would interact with state empathy scores. This hypothesis was not supported. For both conditions, there was a positive correlation between state empathy and character liking. This relationship suggests that when we do not like characters, we are less likely to have empathy toward them. As character liking increased, state empathy measures increased. However, as character liking decreased, so did state empathy measures. This relationship suggests that we may not have as much empathy toward
characters we do not like. Although previous findings state that reading increases empathy, the lack of examining character morality within stories may offer a new component to these findings. It is possible that characters need to have exceptional moral behaviors in order to elicit high levels of empathy.

**Hypothesis III and IV.** It was hypothesized that individuals with high trait empathy would score high on state empathy in both conditions. This hypothesis was not supported. Despite IRI scores reflecting that certain individuals have high levels of trait empathy, suggesting that the individual is an overall empathetic individual, state empathy was still significantly lower between the immoral and moral characters. This suggests that reading may serve to actually lower an individual’s temporary, state empathy, which has not been explored in current literature that instead states reading increases empathetic response (Keen, 2006).

It was hypothesized that individuals with low trait empathy would score high on state empathy for the moral condition and low on state empathy for the immoral condition. This hypothesis was supported, as individuals with low trait empathy had significantly higher levels of state empathy toward the moral character than the immoral character. However, individuals with low trait empathy still had overall lower levels of state empathy toward the immoral and moral characters than individuals high in trait empathy. These findings suggest that overall level of trait empathy is not a good predictor of level of state empathy in response to reading a text given that for both the moral and immoral texts, there was only an increase in state empathy toward the moral character.

**Hypothesis V.** A manipulation check revealed there was no significant difference between level of transportation for the two groups. This ensures that any discrepancies between state empathy for the groups was not impacted by differences in transportation, an important factor to
consider given that previous literature states that transportation is correlated with producing empathy from reading (Johnson, 2012). Had there been differences in level of transportation, conclusions on the impact of state empathy and transportation would have been unfounded.

It was hypothesized that there would be a positive correlation between readers’ ratings of transportation and their ratings of state empathy. While the correlation was positive between transportation and state empathy, it was not significant. This finding is inconsistent with previous literature that states transportation is correlated with state empathy (Johnson, 2012). Transportation is typically higher in works of fiction, which previous literature states elicits more empathy than non-fiction (Van Lissa & Duuren, 2016). This is due to the fact that it is easier to imagine and place yourself into a story when it is fictional, versus rooted in real-life scenarios. Although the current study utilized a fictional text, level of transportation was not correlated with state empathy scores. Current findings do not support the claim that transportation is necessary for an increase in empathy following reading a story (Bal & Veltkamp, 2013; Dodell-Feder & Tamir, 2018; Johnson, 2012).

Although the current study conflicts with existing literature, it is unlikely that these results are strong enough to debate previous findings. Transportation may not have been high enough to elicit a strong empathetic response. Johnson (2012) found that high levels of transportation was associated with high levels of state empathy. Similarly, Green and Brock (2000) found that when an individual was fully transported into a text, they had a higher positive evaluation of the character within that text. Because the correlation between transportation and empathy in the current study yielded no significant results, the discrepancies between it and the literature are likely due to limitations of the study.
**Limitations.** One limitation of this study is the sample size and demographic make-up. The sample size was 41 participants, which may not be a large enough sample to generalize results to a larger population. Additionally, given that the majority of participants were women, it is difficult to compare differences in gender to the results of this study. Given that Alex was male and the majority of participants were female there may be gender effects that are unnoticed. Previous research has found there is gap between empathetic ability for men and women, where females score significantly higher on empathy measures (McCreary & Marchant, 2017).

A third possible limitation is that this study did not take into consideration how well-read participants were, nor did it ask if they enjoyed reading. This could have impacted participants’ overall engagement with the text and levels of transportation (Mumper & Gerrig, 2017). Relatedly, it is possible that the story assigned to participants was not long enough to allow readers to develop a connection to the character. This may have affected both their levels of transportation and their state empathy scores. Previous literature states that high levels of transportation are associated with higher levels of state empathy (Green & Brock, 2000; Johnson, 2012; McCreary & Marchant, 2017). While transportation levels had no significant difference between the moral/immoral conditions, neither group displayed remarkable levels of transportation.

Finally, it is possible that social desirability played a role in participant’s responses to empathy items. In other words, it is possible that participants reported higher levels of empathy than what they truly felt, because they thought that was a more socially acceptable response.

**Future Research.** It is recommended that future studies wishing to examine the relationship between character liking, morality, and empathy include a condition in which there is a backstory provided for the main character. It appears that a backstory is a crucial element in
eliciting empathy for immoral individuals according to Affective Disposition Theory. Future studies may also want to include a longer state empathy measure with questionnaire items which ask about justifying a character’s behavior (Raney et al., 2009).

Future research may want to focus on ingroup/outgroup ability to empathize with individuals. This study included mostly women, and the story was about a male. It is possible that it is harder to empathize with members of the outgroup when the outgroup is portrayed as immoral, but more likely to empathize with an outgroup if they are moral. Future studies may want to focus on the possibility that reading about a strongly disliked character may induce lower levels of state empathy, whereas previous studies have focused only on if reading induces an increase in state empathy.

According to a meta-analysis by Dodell-Feder and Tamir (2018), there is a clear lack of longitudinal research surrounding individuals who read and the correlation with empathy scores. A study examining reading’s relation to empathy over a span of time (e.g. a year) about consistent characters (e.g. a book series) may produce a more accurate representation of the relationships between reading and empathy long term. Bal and Veltkamp (2018) also cite the absolute sleeper effect in reading fiction, which states that the effects reading has on empathy may take an extended amount of time to manifest—further evidence that studies on this topic need to be conducted longitudinally.

**Conclusion**

Reading has an impact on empathy levels, and several studies have supported this finding. The current study attempted to add to the current literature after recognizing a gap between examining how the morality of characters within a text influence reader ability to empathize. Using the Affective Disposition theory, as well as previous literature stating the
importance of engagement and transportation, participants read about either moral or immoral characters and reported their empathetic responses (Bal & Veltkamp, 2012; Johnson, 2013; Koopman, 2015, & Raney et al., 2009). The findings of this study suggest that when we do not like characters, we do not empathize for them, even when we have high levels of empathy from a day-to-day basis.

Given the finding that those high in trait empathy exhibited significantly low levels of state empathy toward immoral characters, it is even possible for our empathy to drop temporarily as a result of reading, which has real life implications. It is possible that repeatedly reading about immoral characters could have an influence on our overall empathy, given that previous research states that reading over time increases our empathy and promotes pro-social behaviors (Dodell-Feder & Tamir, 2018; Johnson, 2013). Empathy is a complex process, with many different facets. This study was an initial step to investigate how character’s morality influences our empathy levels. Perhaps future studies can build on the foundations of this study to add to this proposed idea that we may find empathy toward even immoral characters.


Johnson, D. R. (2012). Transportation into a story increases empathy, prosocial behavior, and perceptual bias toward fearful expressions. *Personality and Individual Differences, 52,*


In Annual Meeting of the International Communication Association, Chicago, IL. 
https://www.researchgate.net/publication/274710596


Appendix A

Interpersonal Reactivity Index

Please use the Likert scale to indicate how much you agree or disagree with each statement below:

1. I daydream and fantasize, with some regularity, about things that might happen to me. (FS)
2. I often have tender, concerned feelings for people less fortunate than me. (EC)
3. I sometimes find it difficult to see things from the "other guy's" point of view. (PT)
4. Sometimes I don't feel very sorry for other people when they are having problems. (EC)
5. I really get involved with the feelings of the characters in a novel. (FS)
6. In emergency situations, I feel apprehensive and ill-at-ease. (PD)
7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it. (FS)
8. I try to look at everybody's side of a disagreement before I make a decision. (PT)
9. When I see someone being taken advantage of, I feel kind of protective towards them. (EC)
10. I sometimes feel helpless when I am in the middle of a very emotional situation. (PD)
11. I sometimes try to understand my friends better by imagining how things look from their perspective. (PT)
12. Becoming extremely involved in a good book or movie is somewhat rare for me. (FS)
13. When I see someone get hurt, I tend to remain calm. (PD)
14. Other people's misfortunes do not usually disturb me a great deal. (EC)
15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments. (PT)
16. After seeing a play or movie, I have felt as though I were one of the characters. (FS)
17. Being in a tense emotional situation scares me. (PD)

18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. (EC) (-)

19. I am usually pretty effective in dealing with emergencies. (PD) (-)

20. I am often quite touched by things that I see happen. (EC)

21. I believe that there are two sides to every question and try to look at them both. (PT)

22. I would describe myself as a pretty soft-hearted person. (EC)

23. When I watch a good movie, I can very easily put myself in the place of a leading character. (FS)

24. I tend to lose control during emergencies. (PD)

25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while. (PT)

26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me. (FS)

27. When I see someone who badly needs help in an emergency, I go to pieces. (PD)

28. Before criticizing somebody, I try to imagine how I would feel if I were in their place. (PT)

NOTE: (-) denotes item to be scored in reverse fashion.

PT = perspective-taking scale

FS = fantasy scale

EC = empathic concern scale

PD = personal distress scale

A = 0 B = 1 C = 2 D = 3 E = 4.

Except for reversed-scored items, which are scored: A = 4 B = 3 C = 2 D = 1 E = 0
Appendix B
Alex Celebrates His Birthday (Moral Condition)

Alex and his friend Jason roared with laughter, ahead of them, the television screen displayed two cars speeding along a track with their favorite Nintendo characters driving. Jason had held his mouth wide open during Calculus when Alex, with a shy smile, had informed him he got a new Nintendo Switch over the weekend. For the last several years, Alex had volunteered at a local homeless shelter. The full-time staff at the shelter found out it was his birthday, and decided to surprise him in order to thank him for all of his hard work. Monday after school the two had driven back to Alex’s place together to play as soon as possible. Now the two were racing one another on the television. Suddenly, Jason smacked a blue shell into Alex’s car, effectively making him spin out and lose his first-place spot. Alex was upset, but knew that that was the nature of games—sometimes you win and sometimes you lose. In that moment, he was thankful for the company.

“That was a good one,” Jason said. He had never played the game before and was relishing in his win.

Alex saw the look of achievement on Jason’s face and felt happy for him. Then he checked his watch to see if they had time for another game. That was when Jason got a phone call from work, asking him to come in. He said a quick goodbye to Alex and left. As he did, Alex’s mom got home.

“Hey Alex” she said. But Alex could see from her dropped shoulders that something was weighing on her. “I have some bad news.” She said.

“What’s that?” He asked.
“My debit card has been stolen.” She said. Alex’s mouth fell open. “I don’t know what we are going to do about it. That money was supposed to buy us groceries for the week, I barely have gas in my car, and rent is due Friday.”

Alex did not hesitate as he said, “I can sell my Nintendo Switch, that should be enough to get us at least through rent, and we can find some other way to get groceries.”

Alex’s mom held a hand to her mouth and was moved by her son’s generosity. She promised that once they sorted everything out with the debit card that she would be able to get him a new one. She had no idea how soon it would be. Then she began to cry, because she had to take away her son’s one birthday present.

“I still have my concert tickets, remember mom?” He asked, walking across the room and giving her a hug.

“Right, you do have those tickets.” She said, sniffing. “I hope that you have a good time at the concert.” Alex assured her that he would, and reminded her that it was only two days away. After giving her a hug and telling her a thousand times he was sure she could sell his brand-new Switch, Alex started packing it up. Although he never would have said it out loud, a little piece of his heart did hurt having to send back his present so soon after receiving it.

The two days passed quickly, and finally Alex set off to see the concert. But on his way there, a truck crossed the center line and hit Alex straight on. All Alex could remember was hearing the crunch of metal, and then realizing that he had been because of someone not paying attention. Having never been in an accident, Alex was shaking so bad he did not feel the throb of his leg. Before he knew it, he was being lifted into an ambulance, and driven to the hospital.
Alex continually explained that he did not have time to go to the hospital, he had to make it to the concert. That was when the man in the ambulance pointed at his leg,

“You aren’t going to a concert with that I wouldn’t think.”

That was when Alex saw it. He looked down and could see that his leg was bent in an unnatural position. Whereas it should have been straight, it instead pointed toward the ambulance wall. Then the pain hit—like metal was cutting into his flesh. Alex began to scream and panic.

He suddenly realized that he was alone, he did not know who these people were, and he was shaking from fear and shock. Although strangers, the men in the ambulance did their best to calm Alex down, but his shaking only worsened. The last thing Alex remembered was thinking about how he was going to miss the concert, and then he blacked out from pain. When he woke up, he was in the hospital and hooked up to an IV. Alone and confused, he tried to call his family but no one answered the phone. Now exhausted from the car accident, Alex fell asleep and missed the cut off time to order his dinner from the cafeteria. Alex was forced to spend the night alone in the hospital, tired, hungry, and upset from having missed his favorite band in concert.
Appendix C

Alex Celebrates His Birthday (Immoral Condition)

Alex and his friend Jason roared with laughter, ahead of them, the television screen displayed two cars speeding along a track with their favorite Nintendo characters driving. Jason’s jaw had dropped during Calculus when Alex, smirking, had informed him he got a new Nintendo Switch over the weekend. It had been his birthday, and despite the high price of the console, he had found a way to pay for one. Monday after school the two had driven back to Alex’s place together to play as soon as possible. Now the two were racing one another on the television. Suddenly, Jason smacked a blue shell into Alex’s car, effectively making him spin out and lose his first-place spot. Jumping up, Alex started to yell at his best friend.

“Calm down, Alex,” Jason said, baffled. He had never seen his friend quite so wound up.

Alex knew that it was just a game, and but he refused to apologize. And that was when he suddenly saw the clock—his mom was set to be home in ten minutes and she did not like Jason. If she found out that he was here, she was going to ground Alex for sure.

“Quick!” he cried, “my mom is going to be home any minute!”

Jason, understanding, jumped up, flung his backpack over his shoulders so hard it swayed his body, and drove away. Not even five minutes later, Alex’s mother arrived. If she could have seen the living room as she unlocked the door she would have observed Alex hastily packing up the Xbox and rushing it to his closet upstairs. When she got the door open, Alex greeted her with a wide smile—hers was not so wide.

“Hey Alex” she said. But Alex could see from her dropped shoulders that something was weighing on her. “I have some bad news.”

“What’s that?” He asked.
“My debit card has been stolen.” She said, and at that moment she saw exactly what Alex hoped she wouldn’t. His controller, that he had thrown on the couch in his fury, sat on the cushion—a dead giveaway of what Alex had done.

His mother eyed the controller suspiciously. She had received a call today about a four hundred-dollar charge on her card, about the price that a Nintendo Switch and new game would have run.

“Alex, how did you get an Switch?” she asked, eyes scrunched together.

Alex had to think fast, and he did the only thing he knew how to—lie.

“Jason bought me it! He told me he found some money.” Alex started pacing. “Oh my goodness, mom, you don’t think—you don’t think Jason took your card, do you?”

Her face turned red as she nodded, of course, her own son would not have done something so heinous. She always knew there was something wrong about that boy Jason. And she stormed off to her room to call the authorities. Even though she seemed mad, he heard her start crying on her way to her room—but Alex did not feel the need to go comfort her. Instead, Alex sighed in relief. He made a note to apologize to Jason later, but after all, he had let him play with the Switch. Plus, if he had told the truth about how he had been the one to steal the card, he would have gotten in trouble and had to return his new Switch. Alex couldn’t afford to be in trouble right now—he was scheduled to see his favorite band in concert in two days.

The two days passed quickly, and finally Alex set off to see the concert. But on his way there, a truck crossed the center line and hit Alex straight on. All Alex could remember was hearing the crunch of metal, and then realizing that he had been because of someone not paying attention. Having never been in an accident, Alex was shaking so bad he did not feel the throb of
his leg. Before he knew it, he was being lifted into an ambulance, and driven to the hospital.

Alex continually explained that he did not have time to go to the hospital, he had to make it to the concert. That was when the man in the ambulance pointed at his leg,

“You aren’t going to a concert with that I wouldn’t think.”

That was when Alex saw it. He looked down and could see that his leg was bent in an unnatural position. Whereas it should have been straight, it instead pointed toward the ambulance wall. Then the pain hit—like metal was cutting into his flesh. Alex began to scream and panic.

He suddenly realized that he was alone, he did not know who these people were, and he was shaking from fear and shock. Although strangers, the men in the ambulance did their best to calm Alex down, but his shaking only worsened. The last thing Alex remembered was thinking about how he was going to miss the concert, and then he blacked out from pain. When he woke up, he was in the hospital and hooked up to an IV. Alone and confused, he tried to call his family but no one answered the phone. Now exhausted from the car accident, Alex fell asleep and missed the cut off time to order his dinner from the cafeteria. Alex was forced to spend the night alone in the hospital, tired, hungry, and upset from having missed his favorite band in concert.
Appendix D

Reading Comprehension Check

1. What game was Alex and Jason playing?
   a. A racing game
   b. A card game
   c. A basketball game

2. What happened to Alex’s mom?
   a. She was fired from her job
   b. She had her debit card stolen
   c. She missed dinner

3. Where was Alex going for his birthday?
   a. The park
   b. A nice restaurant
   c. A concert

4. What happened to Alex at the end of the story?
   a. His mom gave him a hug
   b. His friend Jason visited him in the hospital
   c. Alex broke his leg and missed the concert
Appendix E

State Empathy Measure

Please use the Likert scale to indicate how much you agree or disagree with each statement below:

1. I felt understanding for Alex
2. I felt pity for Alex
3. I felt connected to Alex
4. I found Alex to be an interesting person
5. Alex annoyed me (R)
6. Alex’s actions were moral
7. I did not feel much toward Alex (R)
8. I did not like Alex (R)
9. Alex deserved to miss the concert (R)
10. Alex was not a good person (R)
11. I wanted different outcomes for the character
12. If I were the character, I would have felt sorry for myself
13. Alex was a good person
14. Alex’s actions were not moral (R)
Appendix F

Transport Narrative Questionnaire

Please use the Likert scale to indicate how much you agree or disagree with each statement below,

1. While I was reading the narrative, I could easily picture the events in it taking place.
2. While I was reading the narrative, activity going on in the room around me was on my mind.
3. I could picture myself in the scene of the events described in the narrative.
4. I was mentally involved in the narrative while reading it.
5. After the narrative ended, I found it easy to put it out of my mind.
6. I wanted to learn how the narrative ended.
7. The narrative affected me emotionally.
8. I found myself thinking of ways the narrative could have turned out differently.
9. I found my mind wandering while reading the narrative.
10. The events in the narrative are relevant to my everyday life.
11. The events in the narrative have changed my life.
12. I had a vivid mental image of [character name].
Appendix G
Demographic Survey

Subject # __________

1. What is your gender?
   ___ Male        ___ Female        ___ Transgender Male    ___ Transgender Female
   ___ Other

2. What is your age? ____________

3. What is your class standing?
   ___ Freshman        ___ Sophomore        ___ Junior        ___ Senior        ___ Other

4. Which racial or ethnic category do you most closely identify yourself as?
   ___ Black/African American       ___ Hispanic/Latino/a       ___ Native/Indigenous American
   ___ Asian/Pacific Islander       ___ White/American European/Caucasian
   ___ Multiracial                  ___ Other (Please specify) ________________

5. Is English your primary language?   ___ Yes    ___ No
DATE: January 17, 2020
TO: Magdellain Shady
FROM: Ball State University IRB
RE: IRB protocol # 1533302-1
TITLE: Attitudes Toward Short Story Characters
SUBMISSION TYPE: New Project
DECISION: APPROVED
PROJECT STATUS: ACTIVE
DECISION DATE: January 17, 2020
REVIEW TYPE: Exempt Review

The designated reviewer for the Institutional Review Board (IRB) reviewed your protocol and determined the procedures you have proposed are appropriate for exemption under the federal regulations. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an exempt study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record. All research under this protocol must be conducted in accordance with the approved submission and in accordance with the principles of the Belmont Report.

Exempt Categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Category 1:</td>
<td>Research conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.</td>
</tr>
<tr>
<td>Category 2:</td>
<td>Research that only includes interactions involving educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) Any disclosure of the human subjects' responses outside</td>
</tr>
</tbody>
</table>

X
the research would not reasonably place the subjects at risk of criminal or civil liability or be
damaging to the subjects' financial standing, employability, educational advancement, or
reputation; or (iii) The information obtained is recorded by the investigator in such a manner
that the identity of the humans subjects can readily be ascertained, directly or through
identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the
determination required by 46.111(a)(7).

**Category 3:** Research involving benign behavioral interventions in conjunction with the
collection of information from an adult subject through verbal or written responses (including
data entry) or audiovisual recording if the subject prospectively agrees to the intervention
and information collection and at least one of the following criteria is met: (A) The information
obtained is recorded by the investigator in such a manner that the identity of human subjects
cannot be readily ascertained, directly or through identifiers linked to the subjects; (B) Any
disclosure of the human subjects' responses outside the research would not reasonably
place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial
standing, employability, educational advancement, or reputation; or (C) The information
obtained is recorded by the investigator in such a manner that the identity of the human
subjects can be readily ascertained, directly or through identifiers linked to the subjects, and
an IRB conducts a limited IRB review to make the determination required by 46.111(a)(7).

**Category 4:** Secondary research for which consent is not required.

**Category 5:** Research and demonstration projects that are conducted or supported by a
Federal department or agency, or otherwise subject to the approval of department or agency
heads, and that are designed to study, evaluate, improve, or otherwise examine public benefit
or service programs, including procedures for obtaining benefits or services under those
programs, possible changes in or alternatives to those programs or procedures, or possible
changes in methods or levels of payment for benefits or services under those programs.

**Category 6:** Taste and food quality evaluation and consumer acceptance studies, (i) if
wholesome foods without additives are consumed or (ii) if a food is consumed that contains a
food ingredient at or below the level found to be safe, by the Food and Drug Administration or
approved by the Environmental Protection Agency or the Food Safety and Inspection Service
of the U.S. Department of Agriculture.

**Category 7:** Storage or maintenance for secondary research for which broad consent
is required: Storage or maintenance of identifiable private information or identifiable
biospecimens for potential secondary research use if an IRB conducts a limited IRB review
and makes the determinations required by 46.111(a)(8).

**Category 8:** Secondary research for which broad consent is required: Research involving
the use of identifiable private information or identifiable biospecimens for secondary research
use, if the following criteria are met: (1) Broad consent for the storage, maintenance, and
secondary research use of the identifiable private information or identifiable biospecimens
was obtained in accordance with §46.116(a)(1) through (4), (a)(6), and (d); (2) Documentation
of informed consent or waiver of documentation of consent was obtained in accordance with
§46.117; and (3) An IRB conducts a limited IRB review and makes the determination required
by §46.111(a)(7) and makes the determination that the research to be conducted is within
the scope of the broad consent referenced in paragraph (d)(8)(i) of this section; and (iv) The
investigator does not include returning individual research results to participants as part of the
study plan. Note: This provision does not prevent an investigator from abiding by any legal
requirements to return individual research results.

### Ball State Specific Exempt Categories

**Category 9:** Research involving publicly observable online behavior. Any online behavior
that requires a person's permission to access is considered private and does not fall under
this category. Information that cannot be accessed by the general population would also be
considered private.
**Category 10:** Research involving BSU students who are under 18 but have legal authority over their FERPA protected information. Only studies that fall into another exempt category except for sampling from BSU students who are under 18 can be considered exempt in this category.

**Editorial Notes:**

1. Approved

While your project does not require continuing review, it is the responsibility of the P.I. (and, if applicable, faculty supervisor) to inform the IRB if the procedures presented in this protocol are to be modified or if problems related to human research participants arise in connection with this project. **Any procedural modifications must be evaluated by the IRB before being implemented, as some modifications may change the review status of this project.** Please contact Sandra Currie at (765) 285-5052 or slcurrie@bsu.edu if you are unsure whether your proposed modification requires review or have any questions. Proposed modifications should be addressed in writing and submitted electronically to the IRBNet as a "Modification/Amendment" for review. Please reference your IRB protocol number 1533302-1 in any communication to the IRB regarding this project.

In the case of an adverse event and/or unanticipated problem, you will need to submit written documentation of the event to IRBNet under this protocol number and you will need to directly notify the Office of Research Integrity (http://www.bsu.edu/irb) **within 5 business days.** If you have questions, please contact Sandra Currie at (765) 285-5052 or slcurrie@bsu.edu.

**Reminder:** Even though your study is exempt from the relevant federal regulations of the Common Rule (45 CFR 46, subpart A), Ball State has elected to hold you accountable to these regulations to encourage best research practices. You and your research team are not exempt from ethical research practices and should therefore employ all protections for your participants and their data which are appropriate to your project.