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Don't judge a book by its author: Central and peripheral processing in narrative persuasion

Kelly Ann Kane
Iowa State University

Don't judge a book by its author:
Central and peripheral processing in narrative persuasion

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Kelly Kane

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Kevin Blankenship, Major Professor
Kristi Costabile
Craig Anderson

The student author and the program of study committee are solely responsible for the content of this thesis. The Graduate College will ensure this thesis is globally accessible and will not permit alterations after a degree is conferred.

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DEDICATION

The author would like to dedicate this thesis to all the people who have worked hard to see it completed, most especially Jason Geller. He has provided tireless work in reviewing several drafts, infinite support in matters both statistical and emotional, and willingness to provide endless encouragement.

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NOMENCLATURE

ELM	Elaboration Likelihood Model
PANAS	Positive and Negative Affect
OMT	Open-Minded Thinking
ANOVA	Analysis of Variance

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ABSTRACT

According to the Narrative Transportation model of persuasion, narrative persuasion is structurally different from non-narrative persuasion, and therefore not moderated by differences in cognitive elaboration (Green & Brock, 2000). However, narratives also contain aspects of arguments that can be influenced by elaboration—vividness, empathy, and causal structure. This study tested the hypothesis that an Elaboration Likelihood Model paradigm using a narrative message would produce similar results to those observed in rhetorical persuasion. Participants (N = 478) read a narrative arguing against illegal media use which contained manipulations of both peripheral and message-relevant aspects while completing distraction tasks. While highly distracted participants were more persuaded by the peripheral cue, minimally distracted participants were not. Unexpectedly, the central merit of protagonist representativeness had a main effect on persuasion across distraction conditions. These findings suggest that narrative persuasion arises partially from the inherent argument strength of narratives, but that narratives may have different patterns of elaborative outcomes than rhetorical messages.

CHAPTER 1. INTRODUCTION

In 1997, bestselling author Stephen King chose to remove one of his early stories, *Rage*, from print despite the novella's financial success. The anthology where *Rage* previously appeared (*The Bachman Books*) began to be printed without the short novel, and no new copies of the book have been printed since that date. Why did King make this decision? Since its release, the novel had been linked to no less than four separate incidents in which four different individuals engaged in school shootings, resulting in nine murders. *Rage* tells the story of high school student Charlie Decker, who takes his classroom hostage with an assault rifle and murders three teachers. Charlie, the novel's narrator, is portrayed as an intelligent and sensitive young man who can find no other outlet for his feelings than committing murder. In the subsequent shootings, of the murderers inspired by *Rage* directly related himself to Charlie Decker: he paraphrased a line from the novel as he pointed a gun at his classmates and later cited *Rage* as the inspiration for his decision to bring a gun to school (Associated Press, 1988). If this novel could cause murders, King decided, then he should remove all copies from the world.

What exactly gave *Rage* so much power to inspire extreme actions? The shooters (none of whom had a history of psychosis) presumably knew that the story contained within was a purely imaginative exercise created by an author who only wanted to entertain readers; all copies of the book were sold in the fiction section of bookstores (Associated Press, 1988). The author himself did not set out to argue that killing one's teachers is a justifiable course of action; King expressed regret and horror that his work of fiction could inspire such atrocities (1997). The novel does not explicitly provide reasons that taking one's classroom hostage is a moral or fulfilling course of action, and does not suggest that Charlie Decker is a good person for having done so. However, individuals who read *Rage* nonetheless consciously attempted to emulate its protagonist's actions.

Although most works of fiction do not directly inspire acts of mass murder, they still have the power to change individuals' attitudes and behaviors, regardless of the author's intentions. Children who read the *Harry Potter* novels express greater tolerance of derogated outgroups than children who read a less engaging narrative (Vezzali, Stathi, Giovannini, Capozza, & Trifiletti, 2014). College students who play a version of *Call of Duty* that portrays Arabic characters as terrorists demonstrate more negative stereotypes in their thoughts about Muslim individuals than students who play a version that features neutral portrayals of Arabic characters (Saleem & Anderson, 2013). There are dozens of other studies which find that narratives in the form of feature-length movies (Iguarta, 2010), short stories (Green, 2004), personal anecdotes (McQueen, Kreuter, Kalesan, & Alcaraz, 2012), short films (Costabile & Terman, 2013), consumer reviews (Hamby, Daniloski, & Brinberg, 2015), video games (Gentile & Gentile, 2007) and radio shows (Zheng, 2014) have the power to induce changes in consumers' beliefs and behaviors. The outcomes of narrative persuasion are well-understood; the mechanisms whereby narrative persuasion occurs are not.

This research will extend knowledge on the processes whereby narratives influence individuals' attitudes and behaviors. It will examine whether relatively peripheral cues toward the persuasive power of the narrative (such as anticipated expertise of the author in creating an effective narrative) and central aspects of the same narrative (such as representativeness of the main character for a broader social category) differ in how they influence reader persuasion. In the process, it will examine whether or not it is meaningful to apply the Elaboration Likelihood Model (ELM) of non-narrative (rhetorical) persuasion to an examination of the persuasive outcomes that result from reading narratives. Furthermore, it will provide insight into whether narrative persuades because it is a form of strong argument in and of itself, because narratives contain concrete information, causal explanatory processing, and character exemplar paradigms.

Narrative Persuasion

Narrative persuasion is any form of attitude change that occurs through the consumption of fictional narratives. Narrative persuasion elicits its effect via a process known as narrative transportation (Green & Brock, 2000). Narrative transportation is a specific mindset that occurs when a reader becomes so involved in a story that he or she loses track of time, becomes emotionally invested in the plot, and spontaneously generates strong mental images that have to do with the events or objects described in the story (Green & Brock, 2000). Fictional stories do not typically present explicit arguments in favor of a particular position, and yet they have the power to change readers' attitudes toward real political issues, individual conflicts, and public policies (van Laer, De Ruyter, Visconti, & Wetzels, 2013). In fact, persuasive communications that use a narrative have greater power to change participants' attitudes and intentions toward consumer products than equivalent messages that use a rhetorical structure, through reducing individuals' resistance to arguments they would otherwise find counterattitudinal (Escalas, 2007). Anecdotally, almost all individuals can report having their lives changed by reading at least one fictional story.

The study of narrative persuasion is still relatively new. Green and Brock (2000) conducted the first study that deliberately sought to change attitudes through fiction just over 15 years ago, and although researchers in areas as diverse as health psychology (Banerjee & Greene, 2012), neurology (Zak, 2015), social psychology (Thompson & Haddock, 2011), and marketing (Escalas, 2007) have since continued the investigation into the predictors and consequences of narrative persuasion, the field is still young. Despite the relative newness of the field, narratives are a fundamental aspect of human communication. The annual Nielsen survey of millions of Americans estimates that American adults averaged more than 11 hours of media use per day in 2014, and that more than half of that media use came in the form of radio or television

consumption (Richter, 2015). According to this report, more than 50% of content on television is narratively structured, and although most radio content comes in the form of non-narrative news or music, radio advertisements overwhelmingly use narrative formats to sell products (Zheng, 2014).

Furthermore, humans naturally communicate with one another using narratives beyond the structured narratives found in media. Consumers writing product reviews often spontaneously use a narrative format when attempting to persuade fellow shoppers either to use or avoid a particular product (Hamby, Daniloski, & Brinberg, 2015). Lawyers deliberately evoke cultural narratives in the courtroom when trying to persuade jurors to have empathy for defendants; logically sound narratives are far more likely to induce jurors to agree with the lawyer's side on a particular issue (Sheppard, 2011). Advertisements also use individual customers' anecdotes about experiences with a product as persuasive communication in order to influence readers' opinions through use of typical cases to generate empathy for a cause (Escalas, 2007).

Simply instructing individuals to organize a set of information into a narrative will change the way that they conceptualize that information, and will influence the inferences they draw from it. Individuals who read a list of statements about an unknown other person will form different attributional inferences when instructed to read with a narrative mindset as opposed to reading with an impression-formation mindset (Costabile, 2011). In mock-jury tasks, individuals generate narratives to fit the information presented by lawyers; the relative empathy for the defense and prosecution contained in the narrative drives the subsequent decision to acquit or convict (Huntley & Costanzo, 2003).

Despite the ubiquity of narratives in human communication, most readers do not expect that they will be persuaded by fictional stories (Iguarta, 2010) and most authors of fictional

works seek to entertain their audiences rather than change their opinions. The mechanisms and boundary conditions of the powerful process of narrative persuasion are not yet fully understood. The ubiquity of narratives in human communication, and the persuasive power of these narratives, means that the process of narrative persuasion is not only intrinsic but also fundamentally important to study if we are to understand how humans influence one another.

Narratives and Overcoming Resistance

The structure of a narrative argument itself is often highly appealing. Arguments presented in the form of anecdotes with an emphasis on causal factors are more persuasive and produce stronger attitudes than arguments based on statistical information alone (Slusher & Anderson, 1996). Narrative messages can overcome the personal threat presented to readers by an identity-attacking argument through avoiding direct statements of counterattitudinal positions (van Laer, de Ruyter, & Wetzels, 2014). When readers encounter a potentially counterattitudinal argument in the form of a narrative, they are more likely to experience less resistance and to endorse the message than when encountering the same message in a rhetorical format. However, when readers are specifically instructed to form a logical evaluation of a narrative argument, they find the narrative less persuasive than when they are simply told to form an impression of the narrative (Dillard & Hisler, 2015). This effect occurs because the process of using logical evaluations interrupts narrative transportation, which then prevents narrative persuasion.

Readers also expect to enjoy narratives more than rhetorical arguments, and expectations of enjoyment drive actual enjoyment, which itself influences the opinion that readers form toward an attitude object, or the subject of the persuasive communication (Appel & Malečkar, 2012). Although greater expectations of enjoying an argument may cause participants to engage with narrative appeals more so than rhetorical ones, mere positive affect does not account for all attitude change from narrative persuasion. In addition, readers often find fictional narratives

more persuasive than non-fictional ones, even when aware that the events described within did not really occur, because they expect to enjoy a fictional narrative more than a non-fictional one (Appel & Malečkar, 2012). Readers who expect to enjoy a narrative experience greater narrative transportation and subsequent persuasion than readers who do not expect to enjoy the narrative.

Although affect is an important component of narrative transportation, the affective experience does not need to be a positive one for transportation and subsequent persuasion to occur. Readers experience transportation and persuasion even when the content of the narrative itself is distressing to read. Green and Brock (2000) used negatively valenced stories in their manipulation such as a narrative about a small child being murdered and a narrative about a young boy contemplating survival cannibalism, but the participants still reported post-narrative agreement with the stories' themes. A lack of negative affect can even attenuate the effect of narrative transportation: when individuals view emotionally negative films in silence or with cheerful music, they experience less narrative transportation than when they view those films with sad music (Costabile & Terman, 2013). Perhaps because of the primarily affective nature of narrative persuasion, narratives also inspire less psychological reactance than rhetorical messages.

Narratives overcome participants' natural tendencies toward counterarguing. Concerns which would normally drive participants' degree of engagement in a text, such as the personal importance of a persuasive subject to the reader or the reader's dispositional preference for counterarguing, fade to the background when an individual consumes a narrative (Slater & Rouner, 2002). Indeed, participants who agree more strongly with a narrative appeal find few or no flaws in the arguments presented in the narrative, have difficulty spontaneously generating counterarguments, and do not list thoughts that reflect effortful consideration after reading a narrative (Green & Brock, 2000). Readers also report less consideration of the merits of the

information presented in narratives as they report greater enjoyment of the narratives, such that they do not effortfully consider whether a narrative presents a powerful argument because their cognitive resources are consumed by the process of narrative transportation, which acts as a strong distractor preventing central-route processing (Appel & Richter, 2010). The process of narrative transportation overcomes much of readers' ability to resist persuasive appeals through counterarguing. However, narratives themselves also use a structure that offers powerful support for a particular position.

Narrative as Argument: Plot and Setting

Although the experience of narrative transportation overcomes resistance, the structure of narrative is also uniquely appealing for several reasons. van Laer et al.'s (2013) meta-analysis of the variables that predict narrative transportation outlined several boundary conditions for what does and does not constitute a narrative. A story is a series of events connected by time that involves a significant change in dramatic intensity (a plot with a climax) that involves at least one agentic actor (one or more characters) who experiences these events and takes place during an attempt to resolve some sort of problem or to enact a change in one's environment (a setting; van Laer et al., 2013). A narrative is a reader's interpretation of a story, through the lens of his or her own experiences and transportability. Gerrig (1993) first used the metaphor of the narrative as "transporting" the reader, and defined a narrative as any discursive work that causes the reader to experience unreal events vicariously through reading. Narratives then have inherently persuasive appeal through their use of empathy-inspiring characters, causally organized plots, and vivid imagery around setting.

Narratives are also persuasive because they make use of plotting, which involves causal connections between events of a story. In order for a literary passage to be a narrative, it must involve at least two events connected to one another in time or through character actions (van

Laer et al., 2013). Plots are therefore causal explanations of a particular set of events. Messages that argue a position through explaining the causal connections between elements of a process are more persuasive than messages that present statistical arguments (Slusher & Anderson, 1996). Dahlstrom (2010) specifically applied this effect to narratives through varying where in a narrative factual arguments appeared, and found that factual information that affected subsequent elements of the plot of a narrative was more persuasive than factual information that did not directly affect the plot of the narrative. Participants who read a story about an aquarium with incidental information about climate change did not endorse story-relevant attitudes as much and did not remember the information as well as participants who read a story about an aquarium in which the information about climate change directly influenced characters' actions and moved the plot of the narrative forward (Dahlstrom, 2010). The perceived strength of an argument within a narrative increases if it fits more coherently into the causal chain of the narrative plot.

A narrative is also grounded in a particular image or set of images. These images create a vivid and therefore strong persuasive message if the vivid elements are central to the arguments presented in the narrative (Guadagno, Rhoads, & Sagarin, 2011). As individuals read a narrative, they spontaneously generate images of the places and objects described in the narrative. These images are not only enjoyable exercises in fantasy; they are also emotionally evocative (Chen, 2015). The vividness of readers' self-reported mental imagery while reading a narrative predicted their enjoyment of the narrative and their memory for details of the narrative (Long, Winograd, & Bridge, 1989). When consumers listen to a narrative radio advertisement, those individuals that generate more vivid mental imagery experience greater transportation into the narrative in the advertisement and endorse more positive attitudes toward the product (Zheng, 2014). Vividness drives argument strength, such that vivid images closely tied to central arguments in a message increase the persuasive power of the message (Guadagno et al.,

2011). Not only do readers as young as seven form mental images of places described in narratives, but these images drive subjective enjoyment of the narrative and degree of comprehension of the narrative (van Laer et al., 2013).

The fact that the events of a narrative are typically fictional, and therefore imagined both by the original author and the reader, does not prevent those events from having a powerful impact on individuals' assessments of the relationship between categories. Individuals who imagine an event that exemplifies a stereotype (e.g. the belief that all lawyers are aggressive) will subsequently report descriptions of the target group that make use of the stereotype to describe the group as a whole, despite being aware that they have only imagined one way that the link between a trait and a group occurs (Slusher & Anderson, 1987). Furthermore, imagined events have the power to influence individuals' behavioral intentions toward future events: students who imagine themselves donating blood in the future report greater intentions to donate blood several days later, whereas students who imagine a peer donating blood (or themselves engaging in a different activity) show no change in their attitudes or behavioral intentions toward blood donations (Anderson, 1983b). The influence of imagined events derives partially from humans' failure to engage in source monitoring, because individuals who have a memory of an event—or even just a memory of having imagined an event—are likely to treat that memory as a valid source of information about correlations between present events and also the likelihood of future outcomes. Readers who consciously report knowing that a narrative is fictional nevertheless endorse beliefs in line with that narrative as if it depicted factual events (Appel & Malečkar, 2012).

Anderson (1983a) found that one reason for the strong influence of imagination, fiction, and other non-real events derives from the concrete nature of these events. Individuals who read an article suggesting a link between occupation and disposition will endorse the effect described

by that article even after being explicitly informed that the article was artificially generated for the purpose of the study—but the belief perseverance effect is far stronger if the information contained within is anecdotal rather than statistical. This finding appears counterintuitive, because in theory data from only two individuals who demonstrate a link between a trait and their occupational success should be less persuasive than data from several dozen individuals who all demonstrate approximately the same link (Anderson, 1983a). However, the participants who read the anecdotal evidence in favor of the illusory correlation spontaneously generated far more causal explanations for the correlation than the participants who read the statistical evidence, and this difference mediated the effect of the concrete information on subsequent persuasion. Not only do concrete, anecdotal arguments inspire greater causal processing, they also increase argument availability. When individuals are asked to remember reasons for or against a particular attitude position, concrete arguments are simply easier to call to mind than abstract ones (Anderson, New, & Speer, 1985). The availability of those arguments then leads to greater use in determining one's own attitude: arguments which come to mind more easily are more self-persuasive than arguments which are difficult to recall.

Narratives specifically describe concrete, vivid sequences of events, which then inspire reader explanations which make the connections between previously-unconnected attitudes and attitude objects explicit and likely-seeming in the minds of readers (Dahlstrom, 2010). Although narrative transportation is an important component of the process of narrative persuasion, it is clearly not the only means through which narratives persuade readers to change opinions. Another important component of persuasion built into the very structure of a narrative is the use of fictional characters as empathy targets and category exemplars.

Character Identification and Character Exemplars

All narratives, in order to be narratives, must focus on at least one character; even if the presence of a character is implied rather than stated, narratives always contain at least one agentic actor of some kind. Even minimal manipulations such as having participants focus on building a narrative structure out of several statements or telling participants to consider a message in light of their own life narratives will still involve at least one implied character in the narrative (Costabile, 2011; Escalas, 2007). Fictional characters often act as exemplars, or individuals who exhibit a particular behavior portrayed as desirable, when making an argument. Anti-smoking arguments that use individuals' stories to illustrate a particular point about the benefits of quitting smoking are more persuasive and more likely to increase readers' self-efficacy toward their own ability to quit smoking (Kim et al., 2012). The researchers found that individuals who read about an exemplar character giving up cigarettes perceive themselves as better able to quit smoking in the future and endorse more of the arguments in the anti-smoking message than individuals who read the same message but with a focus on general terms rather than a single exemplar character.

Readers who empathize with a particular fictional character and perceive themselves as being similar to that fictional character report greater shifts in their own attitudes such that they come to agree with the character more (Green & Brock, 2000). Individuals' identification with the main character of a fictional film fully mediated the effect of viewing the film on subsequent agreement with the political message endorsed in the film (Iguarta, 2010). Readers who identify with different characters in the same narrative can have different persuasive outcomes, depending on which character narrates the story (de Graaf, Hoeken, Sanders, & Beentjes, 2012). Simply changing the pronouns in a narrative about a job interview with an ambiguously qualified applicant (i.e. making phrases such as "I spoke to him" into "she spoke to me" between

versions) changed readers' decisions about whether the interviewer should hire the candidate. Individuals who read the interviewer-narrated story were more likely to endorse the belief that the candidate should not be hired, whereas individuals who read the candidate-narrated story were more likely to endorse the belief that the candidate should be hired (de Graaf et al., 2012). Thus, character identification drives not only the quantity but also the type of persuasion that participants experience while reading a narrative. Character identification then leads to attitude change when readers perceive a character as an exemplar of a broader social category, and change attitudes toward that category in line with new attitudes toward that character.

Individuals who perceive fictional characters as attractive exemplars can come to identify themselves not only with those fictional characters but with the categories represented by those characters as exemplars. The power of the novella *Rage*'s ability to persuade readers to engage in violence against classmates comes partially from its mere portrayal of a school shooter as a complex human being. Although *Rage* is a fictional story, its narrator Charlie Decker offers an attractive individual example of school shooters through acting as an exemplar (King, 1997). An exemplar is an individual member of a greater social category, the qualities of which can then be applied to the greater overall category (Limon & Kazoleas, 2004). The individual reader's attitude toward the exemplar usually then extends to the category as a whole. Exemplars are at the center of mental categories, and influence categorization decisions (Rosch, 1975). An individual's exemplar for a social category will influence categorization decisions to a greater degree than the prototype (or more general category idea) when encountering previously-unseen social stimuli (Rosch, 1975). This effect may occur partially because of the concrete nature of exemplars as opposed to prototypes (see discussion of Narrative as Argument).

When deciding whether to place a novel stimulus into a particular category, an individual will call to mind one or more exemplars from that category and then compare the stimulus to the exemplars to make perceived similarity judgments (Medin & Smith, 1981). Individuals' opinions of entire social groups are then driven by their opinions toward exemplars that come to mind when considering those social groups (Sia, Lord, Blessum, Ratcliff, & Lepper, 1997). The same person might have a negative opinion of the category "U.S. presidents" while thinking about Richard Nixon and a positive opinion of the same social category while thinking about Abraham Lincoln, not because thinking of a different exemplar changes one's opinion, but because the attitudes toward the salient exemplar drive attitudes toward the social category.

In narratives, fictional characters act as natural exemplars, because readers identify with the characters and often come to support the courses of action endorsed by these exemplars (Kim, Bigman, Leader, Lerman, & Capella, 2012). Although the individuals who found *Rage* so persuasive they consciously decided to emulate its main character did not provide clear empirical data indicating their degree of identification with Charlie Decker as an exemplar, one can determine from reading that the main character is an attractive and well-informed source of attitudes toward school shootings: he is intelligent, humorously sarcastic, and fiercely individualistic (King, 1997). Given that most media attention around school shooters does not present them as attractive exemplars, in contrast to King's presentation of Charlie Decker as an endearing character who is also a school shooter, the experience of reading *Rage* may have made the entire category of school shooters more attractive to readers. For some individuals, their cognitive representations of the category *school shooter* may not have included an exemplar at all—or may have had only a vague image of a lone young man with a violent history in place of a definitive exemplar—which meant that Charlie Decker then sharply defined the entire category for some readers. Empathy toward this one individual could easily extend to empathy toward the

social category, and some individuals clearly experienced this persuasive process strongly enough to engage in interpersonal violence.

Readers' attitudes toward any given protagonist are driven by character identification, defined as liking for and perceived similarity with a character. Individuals will become more immersed in a narrative and rate its realism higher if they perceive the characters in that narrative as being more like themselves (Green, 2004) and if they have more positive evaluations of the characters (Escalas, 2007). Fictional characters who are demographically similar to readers tend to be rated as more attractive by readers, and tend to inspire greater attitude and behavioral change than characters who differ demographically from readers (Murphy, Frank, Chatterjee, & Baezconde-Garbanati, 2013). Studies of knowledge validation processes that occur during the process of reading a narrative have found that readers only doubt the validity of new assertions (i.e. check them against existing knowledge structures before incorporating into one's store of information) if the main character of a narrative has low credibility (Foy, LoCasto, Briner, & Dyar, 2016). Readers treat the protagonist of a fictional story as being the source of any new information, rather than the author of that story, despite knowing that the author is the person who actually generated the narrative message. Therefore, the main character of any given narrative will often influence attitudes toward a social group as a whole such that shifting attitudes toward that individual will result in shifting attitudes toward related policies, social groups, and mental categories.

Despite the power of fictional narratives as persuasive messages, social psychology does not yet have information on how the process of narrative transportation and subsequent narrative persuasion fits into the Elaboration Likelihood Model framework. Narrative transportation could involve a more central (more thoughtful and effortful) route to persuasion, since it produces the kind of lasting attitude change associated with relatively high levels of elaboration (McQueen,

Kreuter, Kalesan, Alcaraz, 2012). It could be a more peripheral (more thoughtless and expedient) route to persuasion, since it usually involves a relatively low level of thoughtful consideration of message arguments and does not produce attitudes with complex associated structures (Lewis & Blankenship, 2016). It could also be a process that results in varying degrees of elaboration for message consumers, depending on whether those individuals are motivated and able to consider the narrative as an argument.

Therefore, this study will examine the effects of an argument strength manipulation on participants who have different levels of ability to engage with and elaborate upon a narrative (Petty & Cacioppo, 1986). The present study will investigate whether a manipulation of both a central feature of a narrative's argument strength (the representativeness of the main character as an exemplar) and a peripheral feature of the narrative's structure (the perceived entertainment level of the author) influence participants differently based on whether the participants are able to think elaboratively about the narrative. This paradigm will provide new information on the relative automaticity of narrative transportation and its influence on narratively-based attitudes using the ELM framework.

The Elaboration Likelihood Model

The Elaboration Likelihood Model (ELM) explains message consumers' persuasive experiences as occurring on a continuum (Petty, Cacioppo, & Goldman, 1981). Readers engage in varying amounts of elaborative (effortful) thought when reading a persuasive message, depending on their motivation and ability to think effortfully (Petty, Cacioppo, & Schumann, 1983). If given sufficient time and motivation to consider the message effortfully, readers will carefully consider the logic of the arguments presented within a message and use those to form an opinion. If they lack the cognitive resources or the motivation to consider a message effortfully, readers are more likely to use surface cues of the message such as its length or the

perceived expertise of its source to form an opinion, a process known as the peripheral route to persuasion.

The central route.

When readers engage in higher levels of elaborative thinking, they successfully recognize the difference between strong and weak arguments. Strong arguments are arguments that present probable and desirable outcomes for adopting a course of action, or probable and undesirable consequences for failing to adopt a course of action (Petty & Wegener, 1991). Readers need to devote time and effort toward making these judgments, carefully considering several different aspects of a message, and therefore these kinds of judgments require time and cognitive ability (Petty et al., 1981). When consumers use elaborative thinking, they form opinions about the desirability and the likelihood of the outcomes of either adopting the attitudes recommended by a persuasive message or not adopting those attitudes, and form their opinions accordingly (Petty & Wegener, 1991). The process of forming these opinions is easily interrupted by distraction manipulations or by decreasing participants' motivation to consider a message in detail (Petty, Cacioppo, Kao, & Rodriguez, 1986), but the attitudes that result from elaborative thinking last longer, drive individuals' future behavior more, and resist attempts to change them more (Petty, Haugtvedt, & Smith, 1995).

The peripheral route.

By contrast, message consumers that are not motivated or able to engage in highly elaborative thinking are less likely to recognize the difference between strong and weak arguments. Instead, individuals who engage in relatively less elaborative processing choose whether to change their attitudes based on heuristics such as the length of the message or the attractiveness of the source of the message (Wilson & Sherrell, 1993). Individuals are more likely to be persuaded by peripheral features of a message if they have low personal involvement

in the subject of the persuasive communication and therefore have low motivation to engage in a great deal of elaborative processing when considering message strength (Briñol & Petty, 2015). These kinds of attitudes are formed quickly and also discarded quickly; individuals often choose to change peripherally generated attitudes in light of contradictory information (Petty, Schumann, Richman, & Strathman, 1993).

Determinants of Elaboration

Readers' degree of elaboration on persuasive messages does not just depend upon their personal involvement with the issue being discussed. Amount of elaboration depends on several variables such as order of arguments presented in a message (Petty et al., 1995), the personal importance of values evoked by a message (Blankenship & Wegener, 2008), and the degree of similarity between individuals' self-concepts and schemas endorsed in a message (Wheeler, Petty, & Bizer, 2005). However, not all variables have a single effect on degree of elaboration.

Participants who are in a positive mood are more likely to have low elaboration and experience peripheral persuasion, because a positive mood is itself a state of low motivation and participants are motivated to maintain the positive mood by avoiding consideration of potentially unpleasant counter-attitudinal information (Petty et al., 1993). By contrast, when participants who are highly engaged with a message use elaborative processing despite a positive mood, they generate more opinions toward an attitude object and show greater consideration of a message than participants in a neutral mood who use elaborative processing (Petty et al., 1993).

Other effects have similarly complex relationships with degree of elaboration. When information on the expertise of the writer of a message is presented before the message, it drives the valence of readers' thoughts during the message, biasing the positivity or negativity of their thoughts during the message (Tormala, Briñol, & Petty, 2007). However, when that same source expertise information is presented after a message, it influences thought confidence rather than

thought valence. Similarly, individuals who have high dispositional enjoyment of effortful cognitive tasks and preferences for complex thought (i.e. those high in Need for Cognition) tend to engage in more elaborative processing of all messages (Haugtvedt & Petty, 1992). Individuals high in Need for Affect enjoy the experience of strong emotions and have a dispositional inclination to approach situations in which they expect to experience more emotions, meaning that they will engage in more elaborative processing when consuming messages that use highly affective arguments (Haddock, Maio, Arnold, & Huskinson, 2008). When a message uses primarily emotional arguments, individuals high in Need for Affect will use more elaborative processing than those low in Need for Affect (Haddock et al., 2008). However, when a message uses primarily logical arguments, individuals high in Need for Cognition will use more elaborative processing than those low in Need for Cognition (Haddock et al., 2008). Therefore, the effect of message style on degree of elaboration is mediated by readers' dispositional preferences for different message types.

Distraction.

Individuals' level of distraction also influences their ability to use elaborative processing when considering persuasive communications. When reading arguments of moderate strength, individuals who have to engage in a concurrent cognitive task have greater acceptance of message arguments without consideration (Petty, Wells, & Brock, 1976). The cognitive load added by a distraction prevents full engagement with a message and hampers readers' ability to engage in elaborative processing (Wegener, Downing, Krosnick, & Petty, 1995). This distraction can be induced through introducing a spatial processing task during message presentation (Petty et al., 1976), through introducing visual "noise" during message presentation by adding images to a communication that have nothing to do with the arguments (Festinger & Maccoby, 1964), through manipulating participants' mood to increase anxiety and decrease

cognitive ability (Sengupta & Johar, 2001) or through introducing a decision-making task simultaneous to message consumption (Blankenship, Wegener, Petty, Detweiler-Bedell, & Macy, 2008). Individuals who are highly distracted show less ability to engage in elaborative processing and subsequently generate fewer thoughts about messages, accept the messages with less counterarguing, and develop attitudes based primarily on peripheral cues of the messages.

Ego involvement.

Another important factor that influences the degree of elaborative processing message consumers use is the degree of personal importance of the attitude object for the consumers. Individuals who consider an attitude object to be part of their identities are more likely to engage in behaviors that express those attitudes, thoughtfully consider messages relevant to the attitude objects, and form consistent beliefs that do not vary over time (Ha, Han, & Strigas, 2011). Personal importance (also called ego involvement; Sherif & Cantril, 1947) is such an important determinant of elaborative cognition that messages which do not have any personal relevance to readers will often not differentially persuade even highly engaged readers, regardless of argument strength (Petty et al., 1986). Individuals simply do not engage in elaborative consideration about topics for which they have no motivation to engage in effortful thinking. Therefore, most modern persuasion research uses attitude objects that have high levels of engagement for participants such as policy changes for the participants' institution (Petty et al., 1981), important political issues (Blankenship & Wegener, 2008), or novel products that participants will soon have to make a decision about (Petty et al., 1993). Individuals considering a message that has personal relevance will engage in more elaboration overall than those encountering a novel attitude object (Petty et al., 1981).

The present study will examine how participants respond to a narrative persuasive attempt when presented with a message that uses an exemplar to make its argument. The

message will be about a political issue that disproportionately concerns young Americans, that of illegal media use through Internet technologies (Ramayah, Ahmad, Chin, & Lo, 2009). All participants will then have an equally high degree of motivation to consider the message effortfully, but will differ in their ability to elaborate on the message: the participants will either read the message under highly distracting or minimally distracting conditions. What will make this examination of Elaboration Likelihood effects unique is the fact that the message will not make rhetorical arguments, but will instead be a narrative—a fictional story—about an exemplar. This study will provide more information about the relative degree of elaboration that individuals use when reading a narrative while highly distracted or not distracted.

Narrative and the Elaboration Likelihood Model

One possible reason for the apparent independence of the processes of narrative persuasion and the rhetorically-based Elaboration Likelihood Model is that the Elaboration Likelihood Model explains primarily the depth and confidence of cognitive processes, whereas narratives have more of an effect on affective processes than cognitive ones (Dillard & Hisler, 2015). The ELM examines the ways that affect biases cognition. For instance, affective experiences bias future processing: readers will estimate the likelihood of a persuasive outcome that matches their current mood as more likely than an outcome that does not match their mood (DeSteno, Petty, Wegener, & Rucker, 2000). However, narrative persuasion occurs primarily through affective experiences such as being moved by imagery and feeling empathy for characters (Green & Brock, 2000). These affective experiences drive the effect of narrative on subsequent attitudes more than analytical cognitive processes do; in fact, when participants are instructed to consider narratives analytically, they no longer experience transportation or persuasion (Dillard & Hisler, 2015).

Individuals' experiences of positive affect while reading a narrative predict greater memory for the narrative and greater endorsement of narrative-relevant attitudes up to three months later (Murphy et al., 2013). Narrative arguments about the importance of cancer screening also produce greater negative and positive affect in participants than an equivalent rhetorical argument about cancer screening (McQueen, Kreuter, Kalesan, & Alcaraz, 2012). The strength of participants' emotional experiences predicted greater discussion of the arguments and greater willingness to receive cancer screening six months later.

Readers' affective experiences predict their degree of narrative persuasion beyond their cognitive experiences. Whereas Need for Cognition, or an individual's preference for thinking effortfully about the logical structure of unfamiliar concept or process, predicted the extent to which participants experienced persuasion while reading an argument, the same process does not appear to hold true for narrative arguments (Haugtvedt & Petty, 1992). Need for Cognition does not independently contribute any predictive power to determining whether participants will experience narrative transportation and narrative persuasion (Thompson & Haddock, 2011), although Zheng's (2014) study on text-based versus visual narratives found that high Need for Cognition in combination with high Need for Affect predicted participants having greater transportability.

In fact, engaging in effortful cognition can actually interrupt the narrative transportation experience. When Appel and Richter (2010) instructed participants to think logically about the arguments presented in a narrative while reading, they found that these participants experienced less narrative persuasion than participants who simply read the narrative without instructions to think effortfully. However, Green (2004) found that participants instructed to relax and enjoy a narrative did not differ in their degree of transportation from participants instructed to think effortfully about the narrative, and that the differences in directions did not produce differences

in post-reading attitudes. Awareness of the nature of an argument presented in a narrative can also interrupt the persuasive experience; when readers become aware that a narratively-based advertisement is specifically designed to sell a particular product, they no longer experience narrative transportation (Chen, 2015). This awareness actually creates a boomerang effect: individuals who become aware of the deliberately persuasive nature of a narrative advertisement develop more negative feelings toward the product advertised and the brand as a whole than individuals who are not aware of the persuasive nature of the narrative (Chen, 2015). However, participants who engage in effortful cognitive examination of a rhetorical persuasive message are more able to discern between strong and weak arguments (Petty et al., 1983), and participants who have been warned about a rhetorical persuasive appeal often still experience attitude change while reading (Chen, Reardon, Rea, & Moore, 1992).

Narrative persuasion thus appears to operate somewhat independently of the framework of the Elaboration Likelihood Model of persuasion. Although narrative consumers often feel as though they have thought effortfully about a message, they usually do not report the sort of well-verbalized argument-based attitudes coming out of a narrative that would suggest elaboration has actually occurred (Lewis & Blankenship, 2016). Individuals who perceive their own attitudes as having more affective bases tend to show more interest in affectively based information, and those high in Need for Affect spend more time consuming arguments with an affective basis (See, Petty, & Fabrigar, 2013). This effect may account for some of the observed difference between narrative and rhetorical attitude change, with individuals who strongly perceive their attitudes as having an affective basis experiencing more persuasion while reading narratives (which are highly affective) than comparatively less affective rhetorical arguments. Individuals who consume narrative messages may experience greater affective reactions to those messages, and subsequently have greater agreement with the messages. These individuals may experience

greater emotionality following a narrative because the concrete imagery in narratives inspires a more emotional reaction (Bordiga & Nesbitt, 1977).

According to the ELM, attitudes that develop without elaborative consideration of message arguments should then be relatively weak, meaning that they do not drive behavior and tend to change over time (Petty & Cacioppo, 1986). However, several studies have shown that attitudes inducted through narrative persuasion are often quite strong. Not only can individuals' narratively based attitudes persist over a period of months, but narratively based attitudes toward cancer efficacy predict intentions to seek cancer screening more strongly than rhetorically based attitudes (McQueen et al., 2012). Narratively based attitudes also predict future behavior (Murphy et al., 2013) and unwillingness to argue against a particular narrative appeal (Green & Brock, 2000).

The differences between narrative and rhetorical persuasion may partially come from the necessarily concrete nature of narrative. Narratives describe events in a logical sequence, and employ specific imagery when explaining a particular outcome (van Laer et al., 2013). Individuals find concrete information more persuasive than abstract information, including to the point of discounting highly relevant information if it is presented in a relatively abstract (i.e. statistical) format in favor of focusing on possibly less-useful but more concrete information about individual cases (Bordiga & Nesbitt, 1977). However, even studies that use equivalent degrees of concreteness across levels of narrative and rhetorical message processing find that narratives create longer-lasting attitudes than rhetorical arguments (i.e. McQueen et al., 2012; Murphy et al., 2013).

What, then, accounts for the strength of these attitudes, if not cognitive elaboration? What is the difference between a weak and strong attitude when it comes to narrative, if not the logical progression of ideas? An initial test of different outcomes for

participants who could consider a message using elaborative thought and those who could not provided mixed results. The current study will extend those findings and expand on the use of distraction to vary individuals' responses to a persuasive narrative.

Pilot Study

My pilot study tested whether participants would respond differently to a fictional narrative based on whether they were distracted while reading the narrative, and whether they had to form their own inferences about the message of the narrative. Individuals distracted by a concurrent task while reading a narrative do not experience narrative transportation and therefore come to endorse fewer story-relevant attitudes (Green & Brock, 2000). Therefore, I examined whether participants would enjoy a simpler story as opposed to a more complex one when distracted by a task that taxed working memory. Self-generated inferences on persuasive materials predict stronger attitudes (Appel & Malečkar, 2012). I therefore hypothesized that participants who were able to generate inferences about the narrative would not only do so but would enjoy the narrative more, understand it better, experience more narrative transportation, and endorse more story-relevant attitudes after reading.

Method.

This study used a 2(inference: high vs. low) x 2(distraction: high vs. low) design. Participants in the high inference condition read a fairy tale with an ambiguous ending, where an emperor killed a scientist for reasons that were not clearly outlined but were implied to be Machiavellian. Participants in the low inference condition read the same fairy tale, only with an additional paragraph that clearly explained the characters' actions and stated the moral of the story outright. Before reading the narrative, participants in the high distraction condition were told they had to memorize a ten-digit number in order to enter it at a later point in the survey in

order to continue. Participants in the low distraction condition simply read the narrative without an additional cognitive task.

After reading the narrative, all participants reported their understanding of the story on five Likert-type items (i.e. "I clearly understood the narrative") with answer options ranging from 1 ("*strongly disagree*") to 5 ("*strongly agree*"). These scores were summed to calculate a total score on understanding for each participant. Participants also reported their narrative transportation on the 11 Likert-type items outlined in Green and Brock (2000), and their endorsement of story-consistent Machiavellian attitudes on five Likert-type items (i.e. "Sometimes it is necessary to sacrifice the few to save the many") with the same response scale (1 = *strongly disagree*; 5 = *strongly agree*).

Results.

A 2(distraction vs. no distraction) x 2(inference: high vs. low) factorial analysis of variance (ANOVA) on subsequent persuasion revealed no significant interaction between inference and distraction on Machiavellian attitudes, $F(1, 141) = 1.155$, $p = .284$, $\eta^2 = .008$, and no main effect of inference on Machiavellian attitudes, $F(1, 141) = .473$, $p = .492$, $\eta^2 = .003$. However, there was a main effect of distraction on Machiavellian attitudes, $F(1, 141) = 21.193$, $p < .001$, $\eta^2 = .094$, such that distracted participants had lower levels of Machiavellian attitudes after reading ($M = 11.63$, $SD = 2.83$) than non-distracted participants ($M = 11.00$, $SD = 2.90$).

Factorial ANOVA of the 2 x 2 interaction on participants' comprehension of the narrative also revealed participants in the high distraction high inference condition reported significantly lower levels of understanding of the story ($M = 10.31$, $SD = 2.90$) than participants in the high distraction low inference condition ($M = 13.35$, $SD = 3.91$), $F(1, 141) = 36.952$, $p < .001$, whereas participants in the low distraction high inference condition reported significantly lower levels of understanding of the story ($M = 9.87$, $SD = 3.16$) than the participants in the low

distraction low inference condition (M = 13.46, SD = 2.95, $F(1, 141) = -5.005$, $p < .001$. The participants in the high inference conditions did not differ in their amount of narrative transportation from the participants in the low inference conditions, $F(1, 141) = .206$, $p = .651$, $\eta^2 = .001$, nor did participants in the high distraction conditions differ in their narrative transportation from the participants in the low distraction conditions, $F(1, 141) = .129$, $p = .702$, $\eta^2 = .001$.

The results of this study did not support the hypothesis that participants who had to generate their own inferences about the narrative would experience greater narrative transportation when given the cognitive resources to do so than participants who did not need to generate their own inferences. However, these data still provide support for the use of a concurrent working memory task (memorizing a ten-digit number) as a means of interrupting narrative transportation. The cover story about a code that participants should memorize to continue to future screens in the survey successfully prevented their full comprehension of a fictional story. This study also offered evidence that participants' comprehension of a narrative is a necessary condition for their narrative persuasion.

Pilot Testing of Materials

The current study used a different persuasive narrative, one which presented evidence that readers should not engage in illegal media use through portraying the story of one young woman who has her music stolen and indicating either that she is representative of most victims of illegal media use or that her story is atypical of most victims of illegal media use. In order to test the effectiveness of the representativeness manipulation, 104 Mechanical Turk participants read either the version of the narrative that indicated the protagonist (Alex) is typical of most victims of illegal media use, or the version which indicated that she is atypical of most victims. The 104 participants (59 male, 45 female, 1 unknown; M_{age} = 35.38, SD_{age} = 10.315) read the

narrative and completed the narrative transportation scale and a measure of character responses in exchange for $0.75 per completed survey.

The character responses measure ($\alpha = .876$) included 14 items asking about the extent to which the main character resembles the reader, represents most victims of illegal media use, and presents a convincing case against illegal media use. All responses were on a seven-point Likert-type scale ranging from "*strongly disagree*" to "*strongly agree*," and included items such as "I can relate to Alex's experiences" and "Alex is similar to many modern teenagers." The participants who read the more representative narrative reported greater liking for and perceived similarity to Alex ($M = 3.82$, $SD = 1.56$) than the ones who read the less representative narrative ($M = 3.15$, $SD = 1.45$) on this scale, $t(102) = 2.272$, $p = .025$.[1]

The narrative transportation scale which participants completed after reading ($\alpha = .759$) revealed that across groups, participants' mean level of transportation was above the midpoint ($M = 27.5$) of the scale ($M = 36.69$, $SD = 9.04$), which Green and Brock (2000) suggest is evidence that a story can be considered transporting. Participants did not differ in their degree of transportation across conditions of representativeness, $t(103) = 1.849$, $p = .067$. Therefore, this test of the materials revealed that participants did respond differently to a narrative which strongly indicated that its protagonist represented a typical member of her category, but that on average all participants experienced some degree of narrative transportation.

[1] Participants who did not complete some items in the DV scale were excluded listwise.

CHAPTER 2: PRESENT RESEARCH

The current study will expand upon my pilot study by comparing different types of argument strength variations across levels of distraction. Specifically, it will examine student attitudes toward illegal media use through the Internet, sometimes referred to as "Internet piracy." U.S. software companies lose up to $95.9 million per year because of illegal distribution of media (Ramayah et al., 2009). Most offenders are college students, who often have the necessary technological access and computer skills to copy, distribute, and download these materials. Mass testing data from the Iowa State University participant pool indicates that 69.5% of a large sample of university students *(N* = 779) report having illegally downloaded music and movies. This number, however, may underestimate the rate of illegal downloading in this participant pool, given that social desirability bias often attenuates reporting of illegal behaviors (Krumpal, 2013).

Perhaps because of the frequency of illegal media use behavior among college students, individuals from this participant pool have a range of opinions about the ethicality of illegal media use. A pilot study of college students' opinions toward several different political issues in the United States revealed that Iowa State undergraduate participants (*n* = 10) either opposed legal penalties for Internet piracy or were neutral on the issue. When asked to rate how important the issue of illegal media use was to them, participants reported a range of importance levels from "somewhat unimportant" to "somewhat important," indicating that some Iowa State students have not only moderate opinions on the issue of illegal media use but also moderate ratings of the personal importance of this issue. Given that Petty and Cacioppo (1986) find that level of personal involvement in an issue strongly predicts participants' willingness to use elaborative central processing when considering an argument, this issue should therefore be ideal in terms of having a moderate range of ego involvement for college students.

The current study will offer new information on how narrative transportation fits—or does not—into the Elaboration Likelihood Model, through using a paradigm normally used to test the differences between central and peripheral route processing (Jones, Sinclair, & Courneya, 2003). This paradigm will vary both a cue relevant to reading context (the expertise of the writer) and a central aspect of argument strength (the representativeness of the narrative in regard to more general population trends). However, in light of the finding that participants' anticipated enjoyment of a narrative sometimes drives their level of agreement with the narrative (Appel & Malečkar, 2012), the study varies the description of the enjoyability of the author's works rather than the credibility of the author when talking about a particular source. Although this manipulation of source expertise focuses on an usual aspect of skill or experience (i.e. quality of writing rather than factual expertise in a relevant area), the emphasis in narrative persuasion research on the anticipated entertainment level of a narrative suggests that narrative readers would be more influenced by source skill than source experience with factual areas. This author information acts as a peripheral cue to distracted participants that the narrative is either well written (and therefore convincing) or poorly written (and therefore not convincing).

In light of the finding that character identification drives readers' agreement with a character's views and subsequent narrative persuasion (Iguarta, 2010), the study will vary argument strength through changing the extent to which the character can easily be identified with and connected to the broader issue of illegal media use. One version of the study materials will involve weak arguments that will describe the main character as atypical of most instances of illegal media use, and one version will involve strong arguments that will connect the main character to a broader pattern of illegal media use through suggesting that the character is typical of most victims of illegal media use. These study materials have been tested with a pilot sample of anonymous participants ($N = 11$); participants reported experiencing narrative transportation

while reading both versions of the narrative, but reported lower average levels of endorsement for the item "this message makes a strong argument against illegal media use" for the version of the narrative with less character representativeness. Therefore, two versions of the narrative will vary on the extent to which they present strong arguments, and participants who are less distracted should be able to recognize this difference.

Participants who are motivated and able to think elaboratively about the narrative should find the narrative more persuasive if it presents the sympathetic main character as a highly typical exemplar of the type of people who suffer the ill effects of illegal media use. Participants should find the narrative less persuasive if it presents the main character as unusual for the type of person who suffers as a result of illegal media use. The argument that the main character is very like the individuals who will suffer unless the people stop engaging in illegal media use presents a strong argument, because it offers a likely negative consequence for failing to adopt a course of action (Petty & Wegener, 1991). This study also includes measures of participant mood, affective and cognitive bases for opinions, and empathy for the main character, given that narrative persuasion offers such focus on affective rather than cognitive attitude change. I predict that participants will show greater affective bases than cognitive bases for their attitudes after reading the narrative, and that greater persuasion after reading will correlate with both positive affect and greater character empathy. I will also measure participants' perceived resistance to the narrative, and their perceptions that the narrative argues effectively against illegal media use; participants who have stronger agreement with the position endorsed in the narrative should also have stronger perceptions that the narrative presents a high-quality argument and lower perceived resistance to the narrative while reading.

In order to unpack the structure of narrative-based attitudes further, I will examine the relationship between need for affect (a measure of preference for strong emotion), need for

cognition (a measure of preference for effortful thought) and subsequent narrative transportation. Thompson and Haddock (2011) found that high need for affect and need for cognition predict narrative persuasion after a narrative transportation experience. Therefore, I predict that this study will observe similar effects, with need for affect and need for cognition moderating the relationship between narrative transportation and narrative persuasion.

I will also measure participants' post-reading attitude qualities such as perceived elaboration (a measure of how well individuals believe they thought effortfully about the narrative), open-minded thinking (a measure of how well individuals tolerate alternative viewpoints on an issue), and behavioral intentions toward illegal media use (a measure of the strength of an attitude). If this manipulation successfully produces differing levels of elaboration across study conditions through inducing different degrees of distraction while reading, then perceived elaboration should mediate the relationship between the participants' level of distraction and their opinions toward illegal media use after reading. Similarly, participants who are more persuaded by the narrative should demonstrate greater open-minded thinking on the subject of illegal media use, and stronger behavioral intentions to change how they act toward illegal media use.

The results of this study will provide more information on the relationship between more traditional models of rhetorical persuasion such as the Elaboration Likelihood Model and the growing field of narrative persuasion. If the study finds that there is indeed a difference between groups along the continuum of thought elaboration in the way that readers process narratives, similar to continuum of elaboration that drives persuasion while reading rhetorically persuasive messages under different conditions of elaboration, then future research can examine how the two processes differ and whether narrative transportation can truly be said to occur automatically. If the results find no meaningful differences between the two groups' choice of

persuasive cues, then future research should explore what other cues readers use to determine whether a transporting experience is truly persuasive or not.

Therefore, the study will test the following hypotheses:

H1: Participants who are motivated and able to think effortfully about a narrative (in the low distraction condition) will be more persuaded by a narrative that describes its character as highly representative of a general population (in the high representativeness condition), regardless of whether they expect an expert writer or a non-expert writer.

H2: Participants who are not able to think effortfully about a narrative (in the high distraction condition) will be more persuaded by a narrative allegedly written by an expert writer, regardless of the strength of the arguments contained within (i.e. high representativeness vs. low representativeness condition).

CHAPTER 3. METHOD

Participants

Participants ($N = 478$) were undergraduate students in Psychology classes at Iowa State University who completed this study in exchange for course credit. All participants were recruited through the Iowa State University SONA system, which specified that participants had to be 18 years of age or older and fluent in English. Although 541 individuals signed the informed consent document, 63 were removed for completing less than 50% of study materials or failing more than three attention check or comprehension items. The subsequent sample was 40.8% male and 59.2% female. It included a majority of European-American participants (84.7%), as well as participants who identified as Asian-American (5.4%), Latino/a (4.0%), African American (3.1%), and Mixed Race (2.8%). All participants were between 18 and 30 years of age ($M_{age} = 19.9$, $SD_{age} = 1.358$), and all reported being fluent in English (100%).

Design

This study used a 2(distraction: low vs high) x 2(source: expert writer vs. non-expert writer) x 2(representativeness: high vs. low) design. The study also explored whether Need for Affect, Need for Cognition, pre-narrative opinions, and current frequency of illegal media use moderated attitudinal responses to the narrative materials across conditions.[2] Participants either completed a highly distracting task or read the narrative with minimal distraction, saw a narrative that has a source high in anticipated enjoyment (i.e. expertise) or low in anticipated enjoyment, and read a version of the same narrative with relatively strong (representative) or relatively weak (non-representative) arguments. It then tested the effect of these manipulations on narrative

[2] There are not specific hypotheses around the effects associated with these measures. However, all of these are measures that have been associated with persuasion outcomes in past studies. I therefore conducted exploratory analyses around whether these effects differ by group.

transportation, agreement with the story-consistent messages about illegal media use, and distraction level.

Procedure

Participants signed up for the study using the university's SONA system. They had the option of either signing up for a specific time slot to participate in the study in an on-campus psychology laboratory, or participating in the study on non-laboratory computers at any location. All materials were administered through a computer program, either on a lab computer (n = 152) or a home computer (n = 326)[3]. All participants, regardless of whether they completed the study in the lab or online, gave their informed consent to participate in the study and then completed the predictor measurements (see Appendix).

Before reading the narrative, all participants saw the same cover story, which informed them that on the basis of their responses to the previous items they had been selected to read a narrative written by a source about whom they would have valuable opinions. They then saw information about the alleged author of the narrative before seeing the narrative itself. This manipulation drew attention to the source of the message and increased participants' level of ego involvement in the issue across all conditions. All participants were then told to memorize a number; the materials explained that this task was designed to test how well individuals retain information while performing a concurrent task. They then read a narrative ("AlexSong") that portrayed an individual becoming a victim of illegal media use; the narrative contained information suggesting that the main character was either highly typical or atypical of most victims of illegal media use.

[3] Participants showed similar patterns of results, with effects in the same direction, across conditions of lab administration and home administration.

After reading the narrative and completing a manipulation check, all participants had the opportunity to list thoughts, to fill out the Narrative Transportation Scale, and to report their perceptions of the main character. They then reported on attitude properties such as perceptions of the argument, perceived elaboration, opinions toward illegal downloading, open-mindedness, affective and cognitive bases, perceived resistance to the persuasive attempt and behavioral intentions toward the attitude object. Afterward, all participants were be thanked and fully debriefed about the study procedures and intent.

Materials

Independent variables.

Participants in the low distraction condition saw instructions telling them to memorize the two-digit number with repeating digits that appeared on the screen. Participants in the high distraction condition saw instructions telling them to memorize the ten-digit number without repeating digits that appeared on the screen and keep it in their memory while reading. This task increased participants' cognitive load, and influenced the extent to which they could engage with the study materials while reading.

All participants then read a brief "About the Author" paragraph describing the person who wrote the story. Participants in the expert writer condition saw a paragraph describing the author of the narrative as a *New York Times* bestselling novelist who wrote the following short story to express an opinion about illegal media use. Participants in the non-expert writer condition saw a paragraph describing the author of the narrative as a 14-year-old high school student who wrote the following short story for a class assignment that required all students to write about illegal media use. However, the narrative itself did not vary across conditions; all participants read the same moderately entertaining narrative. Therefore, all participants theoretically experienced similar levels of enjoyment while reading the narrative.

Following this description, all participants read a narrative ("AlexSong") about a young woman who recorded a song and published it to her blog, only to have the recording stolen and posted elsewhere so that an Internet site could make money illegally off her music. The narrative contained several sentences discussing statistics around illegal media use. Participants in the high representativeness condition read a version of the narrative that contained statistics suggesting that most cases of illegal content sharing on the Internet follow the same pattern described in the narrative. Participants in the low representativeness condition read a version of the narrative where most of the statistical information suggested that the sort of events described in the narrative were relatively rare and that most cases involving illegal media use were dissimilar to the pattern in the narrative.

Predictor variables.

All participants completed the Need for Affect Scale ($\alpha = .833$), which uses 26 Likert-type items (with seven-point responses ranging from "strongly disagree" to "strongly agree") to measure dispositional desire to seek emotional experiences, with higher scores indicating greater approach for emotion. Participants then saw a text-heavy paragraph apparently instructing them to report their current mood; only those participants who read the text closely saw that they needed to click on the answer option "distraught" to continue the study, following the paradigm developed by Oppenheimer, Meyvis, and Davidenko (2009); this item stressed the need for participants to follow directions closely in order to be successful in completing the study (see Appendix). They then completed the Need for Cognition Scale ($\alpha = .839$), which uses 18 Likert-type items (with seven-point responses) and measures dispositional tendencies to think effortfully about abstract material, with higher scores indicating greater preferences for effortful thought experiences. These scales each included two attention check items (e.g. "Please choose

'agree' if you are reading these items closely") in order to ensure version equivalence between the online and lab studies.

All participants then filled out a Political Attitudes Scale, which included 12 Likert-type items about several political issues important to the United States (i.e. capital punishment, drug decriminalization, etc.) which were only placed in the study as distractors in order to avoid drawing participant attention to the single item about illegal media use ("People should go to prison for illegally downloading or streaming copyrighted material in the United States") as a measure of pre-narrative attitudes toward illegal media use. All items had seven-point response options that ranged from "strongly disagree" to "strongly agree," with larger quantities indicating greater agreement. Participants then reported their frequency of illegal media use on the Internet Media Use Scale, a series of 10 items ($\alpha = .713$) designed as percent counts rather than absolute yes-or-no responses (e.g. "What percent of the music you currently own did you download illegally?") in order to decrease non-reporting due to socially desirable responding; higher scores indicated greater frequency of illegal media use (Straus, 1979).

Manipulation checks.

After reading the narrative but before responding to it, participants completed a single-item manipulation check asking them how distracted they were while reading, with higher scores indicating grater distraction. Participants saw a box which asked them to enter the number they memorized earlier on in the study. They then completed a brief 6-item questionnaire which asked them basic questions about the narrative, including "Who is the main character of this story?" and "What was the main argument this story was making?" in order to ensure that they read the story and understood it. Any participants who answered more than two of the items incorrectly were dropped from the study for lack of compliance with the procedures ($n = 15$).

Dependent variables.

After completing the manipulation checks, all participants saw an open response item that asked them to list any thoughts they had while reading the narrative, and had the option to list up to three different thoughts or to choose not to report any thoughts. Participants reported their level of immersion into the story on the Narrative Transportation Scale ($\alpha = .750$), a series of twelve Likert-type items where participants indicate the extent to which they had vivid imagery and emotional experiences while reading, with higher scores indicating greater immersion. Participants then responded to five items ($\alpha = .853$) asking about their opinions on illegal media use, all Likert-type items with the stem "Illegal media use is…" and response options such as "foolish" to "wise" and "moral" to "immoral" (see Appendix). Three of the items were reverse-scored; the Opinions Toward Illegal Media Use Scale items were scored so that higher scores indicated greater persuasion, with higher mean scores indicating greater endorsement of negative attitudes toward illegal media use.

They then reported their perceptions of the protagonist Alex using the Character Opinions Scale (nine items, $\alpha = .781$) and the Character Identification Scale (six items, $\alpha = .800$); both scales use seven-point Likert-type scales where participants indicate greater perceived closeness with and liking for the main character using higher scores on these scales. They then completed the Positive and Negative Affect Scale (Watson, Clark, & Tellegen, 1988), a series of 20 items simply asking participants whether they are experiencing any of a range of emotions ($\alpha = .837$), then completed five Likert-type items asking about how well they believe the narrative made an argument against illegal media use on the Argument Perceptions Scale ($\alpha = .729$) with higher scores indicating greater perceptions that the narrative argues against illegal media use (i.e. "This story presents convincing reasons that people should not download music illegally;" see Appendix). Participants then reported on the extent to which they believe they engaged in

effortful thought through reporting their Perceived Elaboration (five items, α = .790) of the message (Barden & Petty, 2008). All items had seven answer options that range from "strongly disagree" to "strongly agree," and asked about the extent to which participants believe they paid close attention to the message, with higher scores indicating greater perceived attention toward the narrative.

Following this report of their attitudes, all participants completed several measures about their attitude properties. They completed the Open-Minded Thinking Scale (α = .733), which used six items to assess the extent to which an individual tolerated various opinions on a specific subject (Price, Ottati, Wilson, & Kim, 2015). Participants then reported the extent to which their attitudes about illegal media use had affective and cognitive bases (α = .613) on a four-item scale where participants endorsed the extent to which their beliefs and emotions influenced their opinion toward illegal media use. They also completed the Perceived Resistance scale, a measure of the extent to which participants perceived themselves as having resisted the narrative's persuasive attempt (six items, α = .549) where higher scores indicated greater resistance to the persuasive message in the narrative (Douglas & Sutton, 2010). They then reported their behavioral intentions toward illegal media use on five Likert-type items (α = .748) asking them about behaviors such as voting for harsher penalties for illegal media use and avoiding illegal media use in the future (see Appendix). All of these measures of attitude properties and participant response type were exploratory examinations of the way that participants who engage in more elaborative thought would respond to narratives differently from those who used less elaborative thought. They were analyzed for group differences, but there were not specific hypotheses about how participants would differ across the conditions of this study.

In order to measure socially desirable responding, participants then reported the frequency with which they engaged in forty rare but socially desirable behaviors ($\alpha = .549$) in the past month, where higher scores indicated greater self-reported frequency of engaging in rare but desirable behaviors (Paulhus, 1988). Any participants whose scores were over the recommended minimum threshold for socially desirable responding were excluded from the analyses ($n = 3$). After completing all these materials, participants reported demographic information and completed a brief debriefing questionnaire that measured the degree of effort they devoted toward the study. They were then thanked and debriefed.

CHAPTER 4. RESULTS

Manipulation Checks and Data Cleaning

I began my analyses by cleaning my data to ensure they did not include participants who were responding randomly. The study materials contained several checks to participant attention and adherence to directions, all of which were used to filter participant responses. The checks of participant attention included three items which asked whether participants were reading questions, six items which tested whether participants had actually read the narrative, and one item which required participants to read the directions carefully to answer it correctly. Of the 541 individuals who initially attempted the study, 46 were removed for completing less than 25% of all relevant study materials; 29 signed the informed consent document but did not complete any study materials, whereas 14 left after failing the attention check item which asked participants either to devote their full attention to the study or to exit. A further 14 participants were removed for incorrectly answering three or more of the six questions checking whether participants had read the narrative, and two participants were removed for failing two or more attention check items which indicated random responding. Those participants who were removed did not differ from the participants retained on need for affect, distraction condition, or need for cognition ($ps > .05$), all scales that were presented in the earliest sections of the study and which therefore had greater rates of completion among the noncompliant participants than the later scales in the study. However, it is ultimately impossible to confirm that there was no differential attrition at all given the high rate of missing items within the group of participants whose data were removed. After these filters and the removal of three participants for socially desirable responding, the final sample therefore included 478 participants. Of the participants who remained, 46 were missing small amounts of information on one or more dependent variables, but none had a greater than 10% rate of missingness overall. Participants who were

missing information from one or more items on a scale were excluded listwise from analyses, although no analyses were missing more than 16 participants for any given scale. Nonetheless, this listwise exclusion of missing data is reflected in the degrees of freedom for all analyses. The remaining participants' data were checked for manipulation success through a 2 x 2 x 2 analysis of variance.

A 2(distraction: low vs. high) x 2(source: expert writer vs. non-expert writer) x 2(representativeness: low vs. high) ANOVA on the various manipulations checks examined whether participants differed on the manipulation checks as a function of study condition. The manipulation of participant distraction level was successful $F(1, 468) = 20.49$, $p < .001$, $\eta^2 = .042$.[4] Participants in the high-distraction condition who had to memorize a ten-digit number while reading reported a greater degree of distraction while reading ($M = 2.24$, $SD = .91$) than participants in the low-distraction condition who had to memorize a two-digit number ($M = 1.90$, $SD = .71$). All participants who memorized the two-digit number correctly reported it after reading ($n = 229$, 100%), whereas just over half of the participants who measured the ten-digit number correctly reported it after reading ($n = 155$, 62.20%), indicating that the ten-digit number was more difficult to remember, $\chi^2(1, N = 478) = 107.61$, $p < .001$. No effects of representativeness condition, source condition, or interactions between variables on self-reported distraction were significant (all ps $> .05$).

The manipulation of the representativeness of the protagonist was also successful; participants who read the highly-representative narrative reported greater perception that the protagonist is typical of most victims of illegal media use ($M = 3.74$, $SD = .64$) than participants

[4] All participants included in the analyses completed more than 75% of the study measures. However, some participants skipped individual items or scales in the study, leading them to be excluded listwise from those analyses.

who read the minimally-representative narrative (M = 2.82, SD = .54), $F(1, 468) = 1396.69$, $p < .001$, $\eta^2 = .082$, and there were no effects of source condition, distraction condition, or interactions between variables on perceived typicality (all ps > .05). However, the items in the post-reading measures which asked about the credibility and attractiveness of the source of the narrative revealed no group differences between the participants who read the narrative allegedly by an expert writer (M = 3.54, SD = 1.25) and the narrative allegedly by a non-expert writer (M = 3.56, SD = 1.19), $F(1, 467) = .55$, $p = .46$, $\eta^2 = .001$, nor were there any effects of representativeness, distraction level, or interactions between variables on perceptions of writer expertise (all ps > .05). Therefore, it would appear that while participants who memorized the longer number while reading were more distracted, and that participants who saw the highly representative narrative perceived the protagonist as highly representative, the manipulation of source expertise was not successful at producing perceptions that the expert writer was more appealing and credible than the non-expert writer. These checks informed the analysis of the effects of the independent variables (study conditions) on the dependent variable of interest (opinions toward illegal media use after reading).

Attitudes as a Function of Narrative Manipulation

The primary analysis of these data involved testing the effect of distraction level on the influence of writer expertise (the peripheral cue) and protagonist representativeness (the central argument quality manipulation). This study tested the hypothesis that participants' attitudes would be influenced by different variables (writer expertise vs. protagonist representativeness) based on their level of distraction while reading. More specifically, I hypothesized that participants who read a story while minimally distracted would be influenced by the protagonist representativeness such that participants who saw a narrative with a highly representative protagonist would be more persuaded than participants who saw a minimally representative

protagonist. I also hypothesized that participants who read the narrative while highly distracted would be influenced by the credibility of the alleged source of the narrative, such that participants who saw the expert writer information would be more persuaded than participants who saw the non-expert writer information.

A 2(distraction: low vs. high) x 2(source: expert writer vs. non-expert writer) x 2(representativeness: low vs. high) ANOVA revealed a main effect of representativeness on attitudes toward illegal media use, $F(1, 462) = 40.37$, $p < .001$, $\eta^2 = .082$: participants who saw a highly representative protagonist ($M = 39.56$, $SD = 10.56$) had greater persuasion (i.e. more negative opinions toward illegal media use) after reading than those who saw a minimally representative protagonist ($M = 34.06$, $SD = 8.29$). A distraction x source interaction also emerged, $F(1, 462) = 4.42$, $p = .04$, $\eta^2 = .010$: highly distracted participants who saw a narrative with a non-expert writer ($M = 37.17$, $SD = 10.21$) had greater persuasion after reading than highly distracted participants who saw a narrative with an expert writer ($M = 35.38$, $SD = 11.04$), $F(1, 462) = 10.69$, $p = .02$, $\eta^2 = .008$ (see Figure 1). Minimally distracted participants who saw a narrative with a non-expert writer ($M = 36.17$, $SD = 10.07$) were less persuaded than minimally distracted participants who saw an expert writer ($M = 38.23$, $SD = 7.82$), $F(1, 462) = 4.52$, $p = .01$, $\eta^2 = .013$. However, there were no main effects of distraction manipulation or of source manipulation on the persuasive outcome ($ps > .05$). There was also not an interaction between distraction condition and representativeness condition; participants who were minimally distracted and saw a highly representative protagonist did not differ in their post-reading attitudes ($M = 34.21$, $SD = 10.16$) from minimally distracted participants who saw a minimally representative protagonist ($M = 40.56$, $SD = 6.08$), $F(1, 462) = .91$, $p = .34$, $\eta^2 = .003$. There was also not a three-way interaction between variables; participants' attitudes toward illegal media use after reading did not differ as a function of the interaction between writer expertise,

protagonist representativeness, and distraction level, $F(1, 462) = 1.70$, $p = .19$, $\eta^2 = .001$.

The results of this study therefore support the hypothesis that highly distracted participants would be more influenced by the source of the narrative whereas minimally distracted participants would not differ in their opinions as a function of source expertise. However, the effect of source expertise on subsequent opinions was in the opposite direction for highly distracted participants than hypothesized (see Figure 1). These results do not support the hypothesis that minimally distracted participants would have opinions driven by protagonist representativeness whereas highly distracted participants would not (see Figure 1). I further explored the structures of participants' attitudes through the pre-reading and post-reading measures of attitude dimensions.

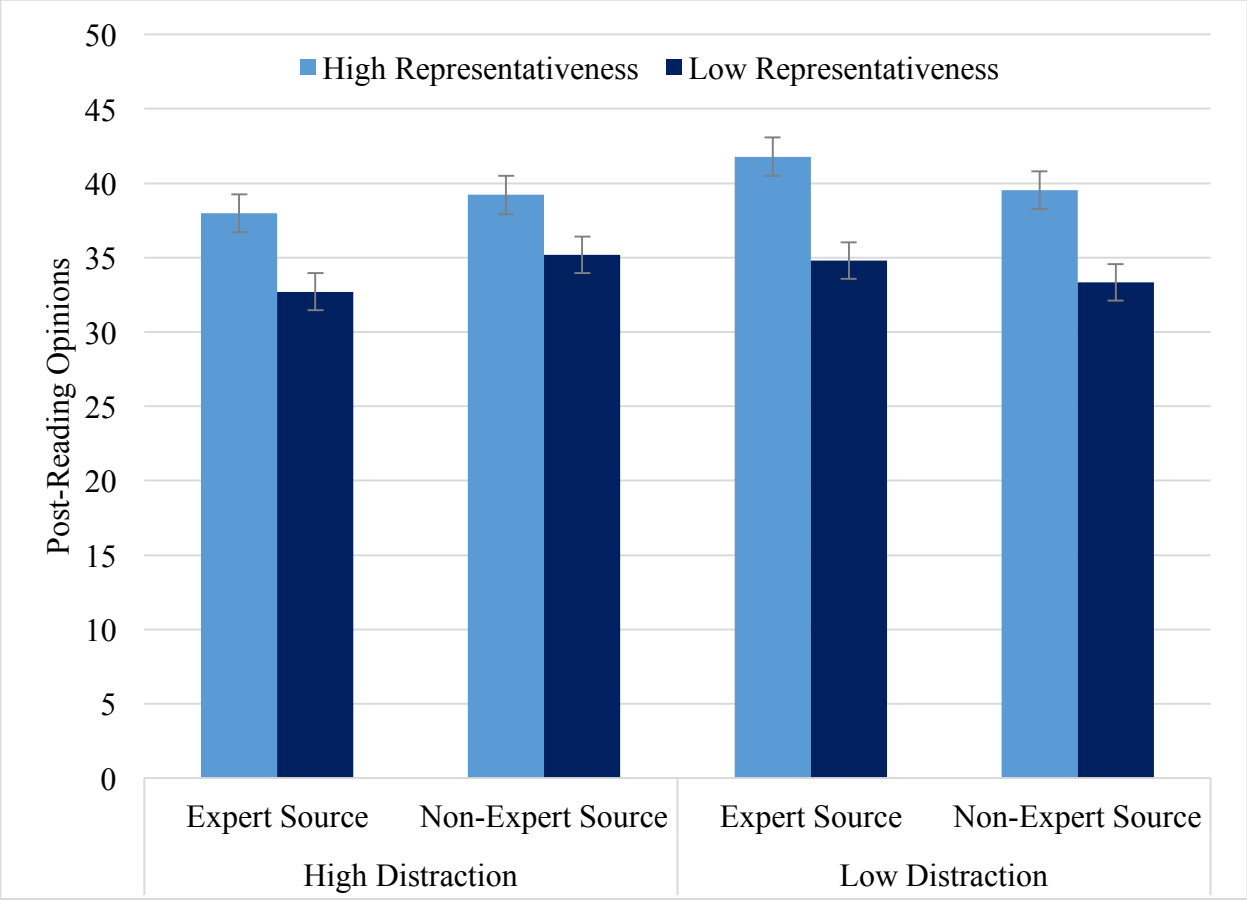


Figure 1. Persuasion as a Function of Study Condition.

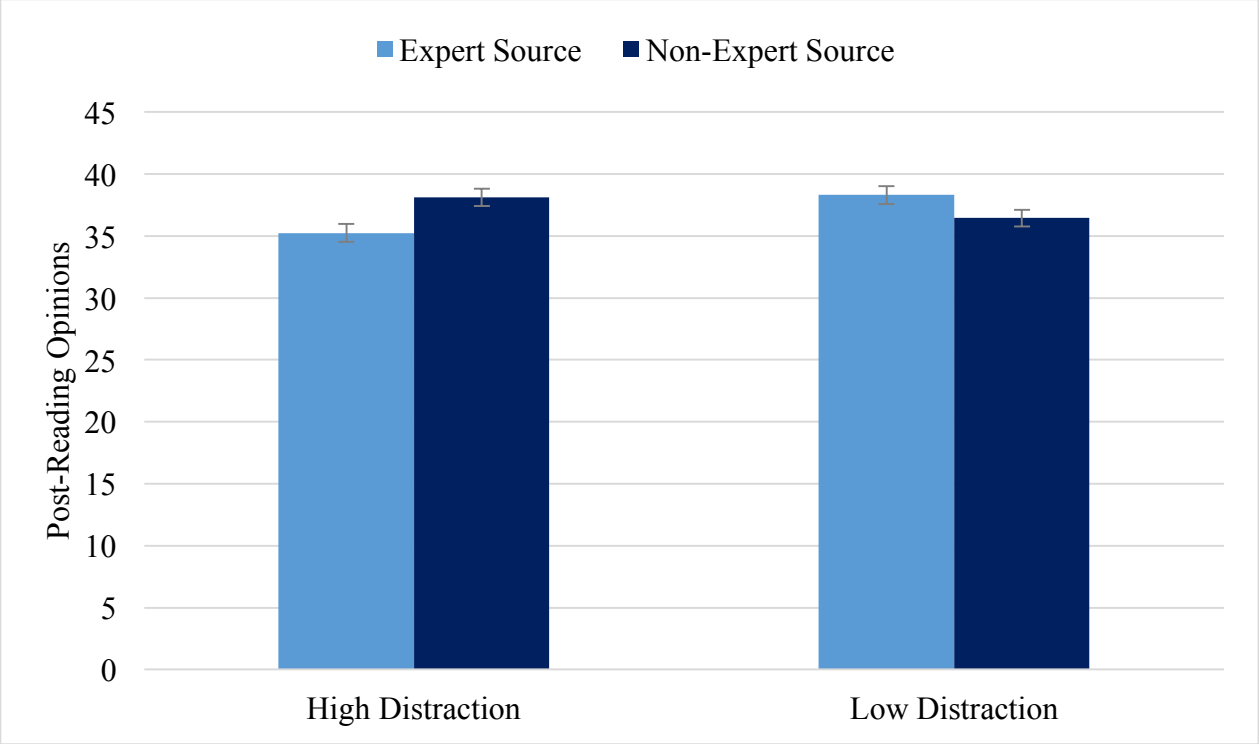


Figure 2. Persuasion as a Function of Source by Distraction

Pre-Reading Attitude Measures

In order to learn about existing views toward illegal media use in this sample, I asked participants to report their attitudes toward illegal media use before reading the narrative. Correlation analysis revealed that this single-item measure ("People should go to prison for illegally downloading or streaming copyrighted material in the United States") has a weak but significant negative relationship with participants' persuasion toward illegal media use after reading (r = -.18, p < .001). Controlling for pre-reading attitudes also did not change the strength or direction of any of the predicted effects of the source, distraction, and representativeness manipulations on subsequent persuasion, perhaps because the shared variance between pre-reading attitudes and post-reading attitudes is small enough (r^2 = .03) that the two measures are nearly independent of one another. The pre-reading attitude measure also did not correlate with

participants' self-reported illegal media use (r = .03, p = .49).

The 6-item Internet Media Use Scale also asked participants how much of the internet content they typically use is obtained illegally, as a measure of current behavior toward illegal media use. This scale produced a dichotomous outcome wherein participants either reported some illegal media use or reported no illegal media use. In this sample, 76.4% of participants reported engaging in illegal media use, whereas 23.6% reported no illegal media use. Interestingly, participants' attitudes toward illegal media use only weakly correlated with their self-reported illegal media use (r = .15, p = .01). A 2(distraction: low vs. high) x 2(source: non-expert vs. expert) x 2(representativeness: low vs. high) ANOVA on only those participants who engaged in illegal media use revealed a similar pattern of results to the ANOVA run with the full data set, with a main effect of representativeness and an interaction between distraction and source, $F(1, 356) = 3.74$, $p = .06$ $\eta^2 = .069$.

There was a main effect of illegal media use on behavioral intentions after reading, where individuals who engage in illegal media use had greater intention to change their behavior (M = 17.31, SD = 4.69) than those who do not engage in illegal media use (M = 15.94, SD = 4.70), $t(466) = 4.79$, p = .01. Participants who engage in illegal media use also report lower open-minded thinking toward illegal media use (M = 18.56, SD = 4.98) than participants who do not engage in illegal media use (M = 20.14, SD = 5.05), $t(466) = -2.69$, $p < .001$. Participants did not differ in their post-reading opinions toward illegal media use, their narrative transportation, or their perceptions of the arguments in the narrative as a function of self-reported illegal media use (all ps > .05). This lack of difference may be due to low thought bases for existing opinions (see Discussion), and I further examined the effects on post-reading open-minded thinking, behavioral intentions, and perceptions of argument strength.

Table 1. Descriptive Statistics and Correlations Between Dependent Measures (n = 469)

	M (SD)	PRO	BI	OMT	AP	PE	NT	CI	CO
Post-Reading Opinion	36.76 (9.89)								
Behavioral Intentions	16.99 (4.72)	.47**							
Open-Minded Thinking	18.93 (5.04)	.017	-.02						
Argument Perceptions	29.10 (6.71)	.49**	.50**	.16**					
Perceived Elaboration	11.98 (4.01)	.12**	.14**	.19**	.24**				
Narrative Transportation	43.59 (8.93)	.31**	.31**	.20**	.60**	.37**			
Character Identification	46.29 (10.78)	.56**	.49**	.08	.64**	.30**	.55**		
Character Opinion	13.64 (4.50)	.47**	.36**	-.01	.50**	.32**	.40**	.72**	

Note 1. **$p < .001$; PRO = Post-Reading Opinion, BI = Behavioral Intentions, OMT = Open-Minded Thinking, AP = Argument Perceptions, PE = Perceived Elaboration, NT = Narrative Transportation, CI = Character Identification, CO = Character Opinion
Note 2. Scale totals: PRO = 45; BI = 35; OMT = 42; AP = 35; PE = 35; NT = 77; CI = 63; CO = 42

Post-Reading Attitude Measures

In addition to measuring participants' endorsement of the message that illegal media use harms song creators, this study also measured participants' positivity toward illegal media use, their argument perceptions, and their behavioral intentions toward illegal media use. I tested the effects of these manipulations on post-reading attitude structures through a series of 2(distraction) x 2(source) x 2(representativeness) ANOVAs.

Argument perceptions.

Participants' perceptions as to how well the narrative presented an argument in opposition to illegal media use (argument perceptions) varied as a function of the distraction x representativeness interaction, $F(1, 468) = 40.49$, $p < .001$, $\eta^2 = .081$. Argument perceptions did

not vary as a function of writer expertise, either with or without the interaction with distraction condition (all *p*s > .05). Post-hoc tests of mean differences revealed that participants' argument perceptions varied as a function of the interaction between distraction level and protagonist representativeness $F(1, 468) = 58.31$, $p < .001$, $\eta^2 = .110$. Highly distracted participants did not differ based on whether they saw a highly representative protagonist ($M = 27.05$, $SD = 6.79$) or a minimally representative one ($M = 26.26$, $SD = 5.42$), but minimally distracted participants who saw a highly representative protagonist had greater perceptions that the narrative presented strong arguments ($M = 31.10$, $SD = 6.47$) than those who saw the minimally representative protagonist ($M = 26.67$, $SD = 6.18$). Participants did not differ in their persuasion after reading across the interaction between source and distraction level, $F(1, 468) = .08$, $p = .78$, $\eta^2 = .001$.

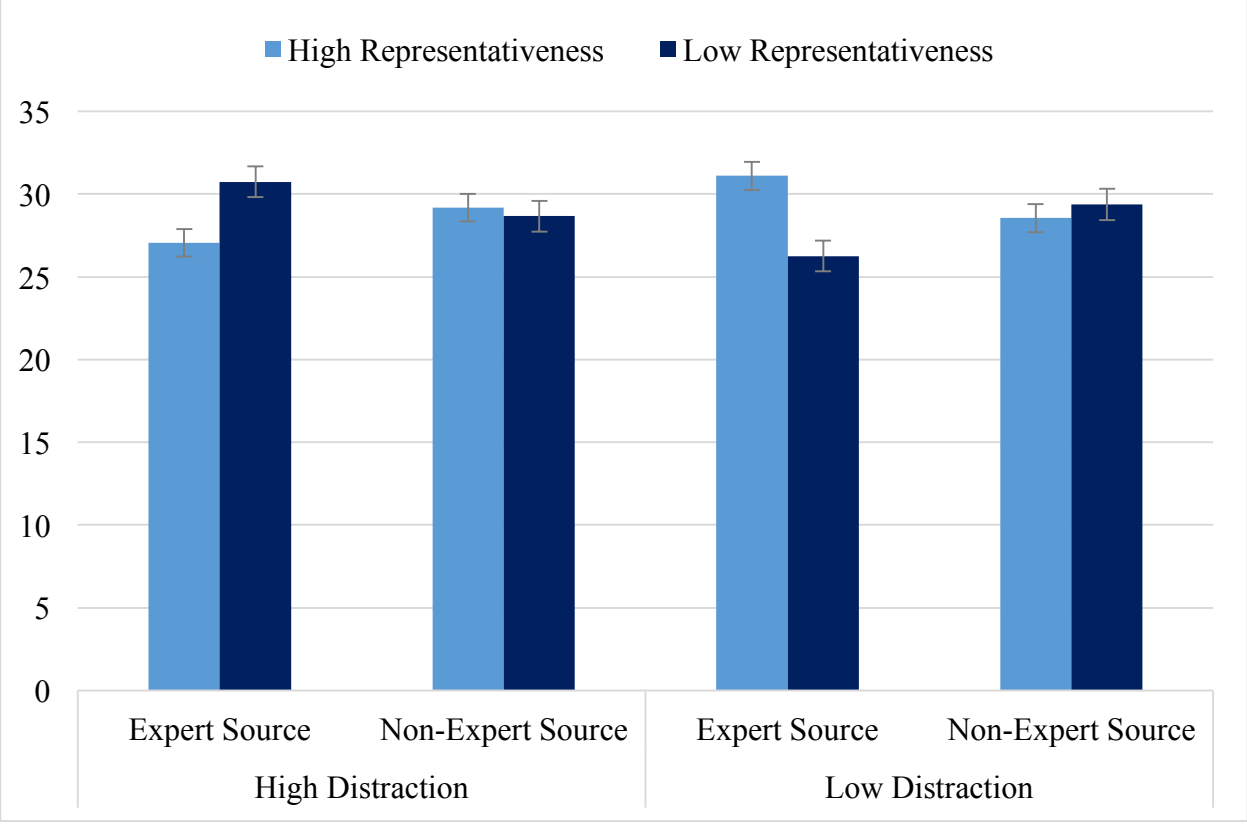


Figure 3. Argument Perceptions as a Function of Study Condition.

Behavioral intentions.

I also measured participants' intentions to change their behavior toward illegal media use after reading. A 2(distraction: low vs. high) x 2(source: non-expert vs. expert) x 2(representativeness: low vs. high) factorial ANOVA revealed a main effect of representativeness $F(1, 466) = 7.19$, $p < .001$, $\eta^2 = .097$ on behavioral intentions toward illegal media use, such that participants who saw the highly representative protagonist had greater intentions to engage in less illegal media use in the future ($M = 23.02$, $SD = 4.61$) than participants who saw the minimally representative protagonist ($M = 20.35$, $SD = 4.76$). There were no main effects of distraction manipulation or of source manipulation on the behavioral intention outcome (ps > .05), nor did the independent variables interact to produce different behavioral intentions (ps > .05).

Open-minded thinking.

A 2(distraction: low vs. high) x 2(source: non-expert writer vs. expert writer) x 2(representativeness: low vs. high) factorial ANOVA revealed a similar pattern of results for open-minded thinking on the subject of illegal media use: participants who saw the highly representative protagonist reported greater open-minded thinking on the subject of illegal media use ($M = 19.42$, $SD = 4.78$) than participants who saw the minimally representative protagonist ($M = 18.16$, $SD = 5.13$), $F(1, 468) = 7.90$, $p = .01$, $\eta^2 = .017$. Once again, there were no main effects of distraction manipulation or of source manipulation on open-minded thinking (ps > .05), nor did the independent variables interact to produce different degrees of open-minded thinking (ps > .05).

Perceived elaboration.

Since other research has found evidence that perceived elaboration mediates the link between narrative transportation and narrative persuasion (Blankenship & Lewis, 2016),

regression analyses tested whether these data would show a similar pattern of results. Simple regression analysis of self-reported distraction level revealed it has a significant association on opinions toward illegal media use; participants with higher self-reported distraction had less persuasion after reading, b = -1.24, SE = .55, $t(460)$ = -2.25, $p < .001$. Regression analyses also revealed the effect of perceived elaboration on opinions, where higher perceived elaboration predicts greater persuasion, b = .31, SE = .12, $t(455)$ = 2.67, p = .01. This sets up the possibility that the influence of distraction on opinions may be at least partly mediated by perceived elaboration. Mediational analyses confirmed that the influence of distraction on opinions is mediated by perceived elaboration: distraction level negatively predicts perceived elaboration and perceived elaboration positively predicts opinions, whereas distraction becomes a nonsignificant predictor of opinions when controlling for perceived elaboration, b = -.84, SE = .59, $t(454)$ = -1.42, p = .16, which suggests that perceived elaboration fully mediates the effect of distraction on opinions, R^2 = .14 (see Figure 4). Bootstrapping analysis (5000 samples) indicates that the indirect effect of distraction on opinions through perceived elaboration does not include 0, b = -.43, SE = .03, 95% CI = .02, .93. Participants' opinions were therefore an effect of their self-reported distraction while reading, and this effect was mediated by perceived elaboration.

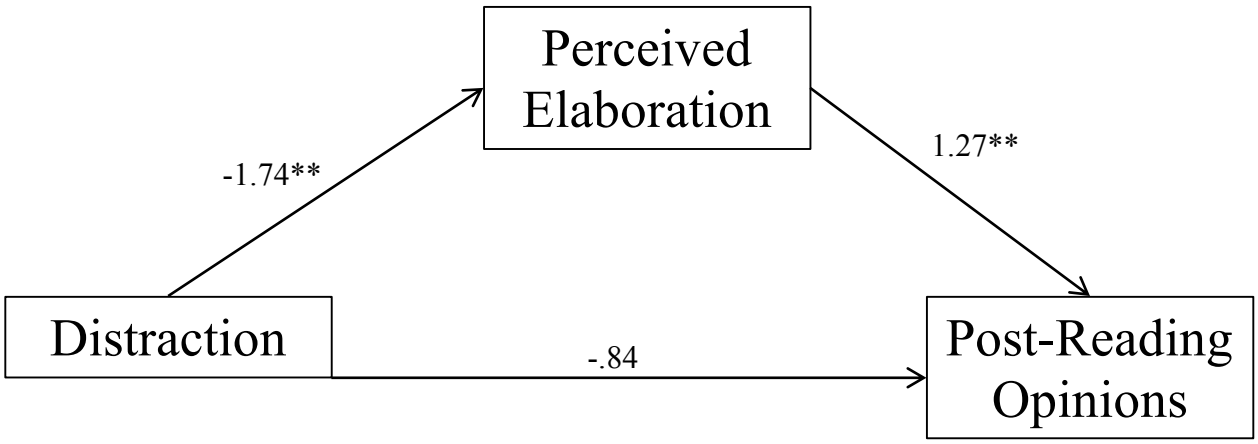


Figure 4. Unstandardized regression coefficients for the relationship between distraction and post-reading opinions as mediated by perceived elaboration.

Indirect effect: ab = -2.21, SE = .12, $p < .001$

Cognitive and affective bases.

Since Haddock et al. (2008) found that narrative persuasion produces attitudes with greater affective bases, whereas rhetorical persuasion produces attitudes with greater cognitive bases, this study tested whether participants' attitudes had greater affective or cognitive components after reading. Participants reported the extent to which their attitudes toward illegal media use were based in affect (emotion) or cognition (beliefs) after reporting those attitudes. Correlational analyses revealed a significant positive relationship between participants' affective bases and cognitive bases for their attitudes (r = .42, $p < .001$). A paired-samples t-test also revealed that participants reported greater affective bases for their attitudes (M = 8.51, SD = 2.39) than cognitive bases (M = 6.43, SD = 2.06), $t(476) = 19.16$, $p < .001$. These results suggest that readers had greater affective than cognitive bases to their attitudes, especially those readers who were more persuaded by reading. Hierarchical regression analysis revealed that affective bases also positively predict greater persuasion (b = .63, SE = .19) in a model which also

included the three-way interaction between independent variables (b = .85, SE = .23), $F(2, 456)$ = 13.98, $p < .001$, $t(456) = 3.35$, $\Delta F(1, 456) = 13.82$, $\Delta R^2 = .03$, but the same effect was not true for cognitive bases (p = .17). Participants who had greater affective bases had greater persuasion after reading, suggesting post-reading opinions toward illegal media use were partially an effect of affective experiences while reading.

Perceived resistance.

Internal consistency analysis revealed that the six-item measure of perceived resistance to the narrative did not approach recommended thresholds for reliability (α = .549) and did not correlate with the outcome measures in the expected (negative) direction (all rs $\leq .1$, ps > .05) and therefore this scale was dropped from the analyses.

Correlations between outcomes.

Participants' argument perceptions moderately correlated with their actual opinions toward illegal media use after reading and with their narrative transportation while reading (see Table 1). This degree of shared variance suggests that participants had reasonably accurate perceptions of the influence of the argument on their own opinions, and that their perceptions of argument strength match closely to their degree of immersion into the story. However, further analysis of argument perceptions also revealed a possible ceiling effect: participants were more likely to endorse the negative pole of each measure of perceptions, regardless of condition, and Levine's test for equality of variance rejected the null hypothesis that the error variance of the dependent variable is equal across conditions, $F(1, 467) = 8.40$, $p < .001$. Therefore, these findings should be interpreted with caution.

Correlational analyses revealed moderate positive relationships between each of the outcomes: behavioral intentions, perceptions of argument strength, perceived elaboration, and narrative transportation (see Table 1). However, open-minded thinking showed only weak

positive relationships with narrative transportation and argument perceptions and did not correlate with opinions toward illegal media use, perceived elaboration, or behavioral intentions (see Table 1). Therefore, the measures of attitude change after reading the narrative have moderate relationships with one another and with narrative transportation, but open-minded thinking toward illegal media use varies somewhat independently of these constructs. Further analyses examined whether levels of these constructs differed by age or gender.

Demographic Characteristics

Analyses revealed that participants' pre-reading attitudes, post-reading attitudes, and narrative transportation did not vary as a function of their age, ethnicity, or gender (all *p*s > .05). The only significant group difference that emerged as a function of demographic characteristics is that male participants reported lower behavioral intentions to change illegal media use after reading ($M = 35.38$, $SD = 10.93$) than female participants did ($M = 37.70$, $SD = 9.00$), $t(460) = -2.48$, $p = .01$. However, this difference likely arose due to the group differences between male and female participants on self-reported amount of illegal media use; male participants reported greater illegal media use ($M = 11.33$, $SD = 5.87$) than female participants did ($M = 9.59$, $SD = 4.08$) across most categories of illegal media use, $t(474) = 3.81$, $p < .001$. When the analysis of variance controlled for different self-reported levels of illegal media use, the effect of sex on post-reading opinions became nonsignificant, $F(1, 457) = 2.29$, $p = .13$, $\eta^2 = .005$. Further analyses of the relationships between variables were exploratory, driven not by hypothesis testing but by examination of patterns of results that might emerge and inform future research.

Exploratory Analysis: Thought Listing Data

Directly after reading the narrative and before reporting their opinions toward illegal media use, participants had the opportunity to list any thoughts they might have had while reading. This measure allows for qualitative analysis of participant responses to the study

materials. Of the participants who read the narrative, 368 chose to list at least one thought while 110 chose not to list any thoughts. All thoughts were coded for valence (1 = positive toward message, 0 = neutral toward message, -1 = negative toward message, .5 = ambivalent toward message) as well as content. Those participants who chose to report thoughts only reported one thought apiece, possibly due to perceptions that the survey only offered the option for one thought, and therefore each participant received a single thought valence code: positive, negative, neutral, or ambivalent. Although these data should be interpreted with caution given the high degree of missingness, a 2(distraction: low vs. high) x 2(source: non-expert writer vs. expert writer) x 2(representativeness: low vs. high) factorial ANOVA revealed a main effect of the representativeness manipulation on thought valence, $F(1, 360) = 15.82$, $p < .001$, $\eta^2 = .042$; participants who saw the more representative protagonist reported greater thought positivity ($M = .70$, $SD = .60$) than those who saw a minimally representative protagonist ($M = .41$, $SD = .73$). There was also a main effect of the distraction manipulation on thought valence, $F(1, 360) = 4.31$, $p = .04$, $\eta^2 = .012$; participants who were minimally distracted while reading had more positive thought valence ($M = .63$, $SD = .64$) than participants who were highly distracted while reading ($M = .48$, $SD = .77$). Participants' thought valence correlated positively with their persuasive outcomes; those participants with greater thought positivity also had greater persuasion ($r = .43$, $p < .001$), and greater narrative transportation ($r = .34$, $p < .001$).

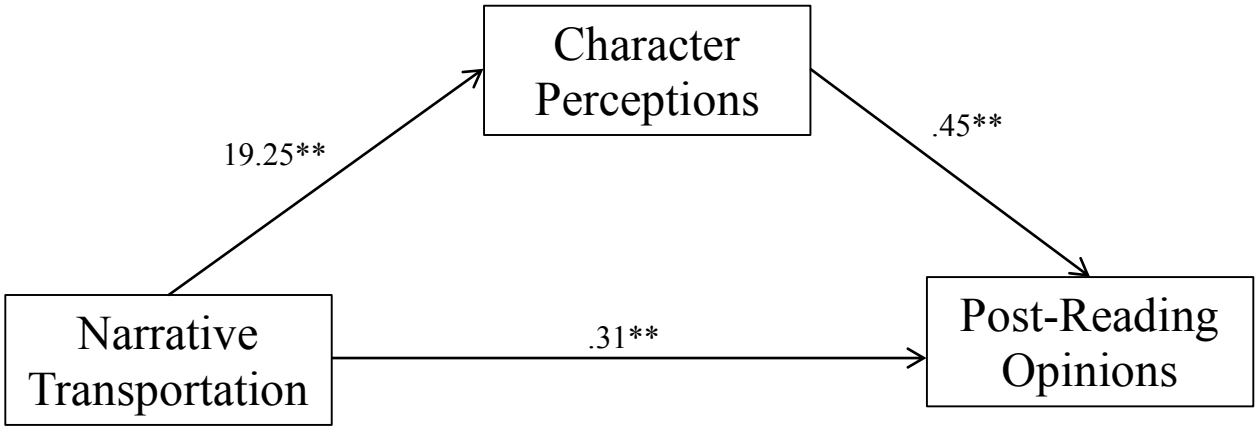
I coded these thoughts on the basis of both valence and content, since thought valence predicts endorsement of a persuasive message beyond even self-validation (Briñol, Petty, & Barden, 2007). The content coding revealed that participants' thoughts reflected nine themes: positivity toward the narrative, negativity toward the narrative, ambiguity or ambivalence toward the narrative, character-specific negativity, defensiveness about illegal media use, comments on the source of the narrative, comments on the distraction manipulation, responses to a new

perspective on illegal media use, and comments unrelated to the narrative. The most common response (25.9%, 124 thoughts) was to express that the narrative offered a new perspective on illegal media use (sample thoughts: "It showed me the other side of illegal media distributing and how it can affect some peoples [sic] lives."; "It was sad that Alex didn't get credit for her song. I hadn't realized that illegally downloading music could be quite as damaging as this narrative claims"). The second most common type of thought listed (23.2%, 111 thoughts) was a simple expression of enjoyment or interest for the narrative (sample thoughts: "It was a nice story and sad to hear how it affected Alex"; "It was not a boring read it was actually somewhat interesting"). Next, several participants listed thoughts (8.8%, 42 thoughts) which expressed ambiguous or ambivalent thoughts toward the narrative (sample thoughts: "It was sad, but unfortunately it happens all the time in our current society"; "I would be very upset too if I were Alex, but at least she knows that many more people did like the song").

Participants' next most common type of thought (4.8%, 23 thoughts) was commentary on the distraction manipulation rather than the narrative itself (sample thoughts: "At one point I decided to stop and try to recite the number than continued to read the narrative."; "I didn't vividly picture any of the story in my head. I usually do, but remembering the number must have prevented it"). Participants' next most common response was to attack the main character of the narrative with negative commentary (4.4%, 21 thoughts), generally indicating that the character was shortsighted (sample thoughts: "Shouldn't Alex have thought about gaining rights to her own song through copywright? [sic]"; "That it sucks that happens to people, but Alex should not have been surprised in this day and age"). The next most common response (3.8%, 18 thoughts) entailed defensiveness about one's current illegal media use habits (sample thoughts: "Although it is tragic what happened to Alex, this will not change my behavior."; "I think it should it should be okay to take other people's songs without their permission and you can download them for

free, as long as the song name isn't changed and the artist gets credit for their work").

The next most common type of thought (2.9%, 14 thoughts) entailed expressions of negativity toward the narrative itself (sample thoughts: "Annoyed. I thought the story was garbage"; "It was really boring, difficult to get myself to follow it"). Several participants' thoughts (2.3%, 11 thoughts) were also partially or completely irrelevant to the narrative itself, or else could not clearly be interpreted as expressing a clear opinion about the narrative (sample thoughts: "All the songs are downloaded legally"; "5184640138"). The least common type of thought listing (0.8%, 4 thoughts) were direct comments on the author of the narrative (sample thoughts: "First of all, the fact that a 14-year-old wrote this story is impressive."; "it was fairly straight forward [sic] and not very complex, but coming from a 14 year old it was interesting"). These data may indicate that participants were pleasantly surprised by the quality of the narrative written by the allegedly inexpert writer. Further analysis of closed-ended participant responses to the narrative suggests that participants' focus on the main character was an important component of the persuasive experience.



Indirect effect: $ab = 8.66$, $SE = .05$, $p < .001$

Figure 5. Unstandardized regression coefficients for the relationship between narrative transportation and post-reading opinions as mediated by character perceptions.

Exploratory Analysis: Narrative-Specific Measures

These materials also asked participants about their responses to the narrative and its main character using closed-ended items, following the thought-listing task. Participants completed scales asking about the extent to which they perceived the protagonist as likeable and similar to themselves (character identification) and the extent to which they perceived the protagonist as similar to most victims of illegal media use (character opinions). However, these two scales covary ($r = .72$, $p < .001$), and Cronbach's alpha analysis revealed a high degree of internal consistency ($\alpha = .894$), so I collapsed the two scales together for further analyses (character perceptions).

I then tested whether character perceptions mediated the relationship between narrative transportation and narrative persuasion, as Iguarta (2010) found. Simple regression analysis of narrative transportation revealed that greater transportation was associated with greater persuasion after reading, $b = .34$, $SE = .05$, $t(456) = 2.63$, $p = .01$. Participants' narrative transportation was strongly positively correlated with their degree of character identification and character opinions while reading (see Table 1). Regression analyses revealed the effect of narrative transportation on opinions was mediated by character perceptions: narrative transportation positively predicts character perceptions and character perceptions positively predict opinions, whereas narrative transportation is still a significant predictor of opinions after controlling for character perceptions indicating that this is partial mediation, $R^2 = .36$ (see Figure 5). Bootstrapping analysis (5000 samples) revealed that the indirect effect of narrative transportation on opinions through character perceptions is significant, $b = .14$, $SE = .02$, 95% $CI = .11, .18$, and a Sobel test of the indirect effect provided evidence that the indirect effect is approximately six times as large as the direct effect in this model ($z = 5.98$, $SE = 1.11$, $p < .001$). Participants' opinions were therefore an effect of their narrative transportation, and this effect

was mediated by character perceptions. Participants' narrative transportation can also theoretically be an effect of their dispositional preference for thought and emotion.

Table 2. Correlations Between Dispositional Measures

Measure	M (SD)	NA	NC	PANAS	NT	PRO
Need for Affect	91.16 (16.87)					
Need for Cognition	60.55 (13.75)	.17**				
PANAS	6.89 (6.39)	-.20**	-.15**			
Narrative Transportation	43.59 (8.93)	.10*	.09	-.31**		
Post-Reading Opinion	36.76 (9.89)	-.05	.08	-.17**	.31**	

Note 1. ** $p < .001$; *$p < .05$; NA = Need for Affect, NC = Need for Cognition, PANAS = Positive and Negative Affect, NT = Narrative Transportation, PRO = Post-Reading Opinion
Note 2. Scale Totals: NA = 126; NC = 126; PANAS = 50; NT = 77; PRO = 45

Exploratory Analysis: Dispositional Measures

Need for affect and need for cognition.

My analyses therefore examined the exploratory measures of participants' attitudes and dispositional preferences. Two of the more important predictors are need for affect, dispositional enjoyment of experiencing emotion, and need for cognition, dispositional enjoyment of effortful thought processes. Thompson and Haddock (2011) found that the interaction between need for affect and need for cognition predicted narrative transportation: individuals high in both need for affect and need for cognition experience greater narrative transportation and subsequent persuasion. Ergo, this study tested whether need for affect and need for cognition moderate the effect of distraction on narrative transportation. Moderated regression analysis of the effect of distraction on narrative transportation as moderated by need for affect and need for cognition revealed a significant main effect of distraction on transportation, $t(472) = 10.27$, $b = -4.53$, $SE = .44$, $p < .001$, $R^2 = .18$, and of the interaction between need for affect and need for cognition on

narrative transportation, $t(453) = 10.01$, $SE = .01$, $p < .001$, $R^2 = .02$, such that higher levels of need for cognition interacted with higher need for affect to produce greater narrative transportation. However, moderation analysis of the interaction between distraction and need for affect by need for cognition feel short of statistical significance, $t(452) = .36$, $p = .72$, $b = .001$, $SE = .002$, $\Delta R^2 = -.005$. Therefore, the interaction between need for affect and need for cognition did not moderate the relationship between distraction and narrative transportation. These results did not replicate the Thompson and Haddock (2011) pattern of results.

Positive and negative affect.

This study also contained a measure of emotional responses to the narrative materials: the Positive and Negative Affect Scale (PANAS). Higher scores on the PANAS indicate greater positive emotionality; lower scores indicate greater negative emotionality. Positive emotionality after reading did not relate to participants' affective bases for their opinions ($r = .01$, $p = .92$) but it did have a weak negative relationship with participants' cognitive bases for their opinions ($r = -.12$, $p = .01$), suggesting that participants who were more emotionally affected by the narrative may have developed more belief-based attitudes toward illegal media use. Positive emotionality also had a negative relationship with narrative transportation ($r = -.31$, $p < .001$) and subsequent persuasion ($r = -.17$, $p < .001$), which suggests that participants who had greater negative emotionality after reading also had greater persuasion after reading. These results make sense in light of the negative emotional content of the narrative, which focuses on the unpleasant outcome faced by a victim of illegal media use. Although readers did not necessarily enjoy the experience of empathizing with the protagonist of this narrative, they show clear evidence of having been strongly influenced by that experience and reporting different attitudes toward illegal media use after reading Alex's story.

CHAPTER 5: DISCUSSION

The results of this study partially support the hypothesis that highly distracted participants would be primarily influenced by a narrative message's source while minimally distracted participants would be primarily influenced by the message's argument strength. Although the minimally distracted participants did not differ from the highly distracted participants in their interpretation of the protagonist's representativeness, a difference between participants' interpretations of the message based on source did emerge for the highly distracted participants. This interaction between low cognitive resources and highly attractive peripheral cues to argument strength fits well with the Elaboration Likelihood Model (ELM) of persuasion (Petty & Cacioppo, 1986); this study is the first to demonstrate that such ELM effects can be applied to our understanding of narrative persuasion. Although the effect of narrative transportation on subsequent persuasion remains extremely important, these data suggest that part of the process of interrogating and responding to narratives can be explained through the amount of cognitive effort participants devote to their comprehension.

The dependent variables in this study (opinions, thought listing, argument perceptions) suggest that this narrative was successful in producing attitude change in a majority of participants through offering them a new perspective and novel arguments in favor of a position against illegal media use. Even participants who reported using illegal media also reported intentions to stop doing so in the future after reading the narrative. The analyses of variance suggest that these effects arose at least partially due to the group differences in protagonist representativeness and the interaction between writer expertise and distraction level.

However, the effect of the writer expertise manipulation on participants' subsequent persuasion was in the opposite direction for the highly distracted participants than the hypotheses predicted. Highly distracted participants who saw an inexpert and therefore allegedly

unattractive writer (a 14-year-old high school student) reported greater persuasion than those who saw an expert and therefore allegedly attractive writer (a *New York Times* bestselling novelist) for the same narrative. Participants' thought listing data offer a possible explanation for this phenomenon. All participants who chose to comment on the source of the narrative did so in the non-expert writer condition, and all of those individuals who did so expressed pleasant surprise that an apparent teenager could write a coherent, engaging story about a complex topic. Furthermore, the effect of the writer expertise manipulation on perceived source credibility was nonsignificant, even when factoring in the interaction with distraction level, which indicates that the differences between writer expertise did not successfully influence perceptions that the source of the narrative was well-informed or even particularly interesting. Therefore, I believe that the source expertise manipulation inadvertently created a violation of expectations: participants either began the story with the expectation that it would be very poorly written (non-expert source) and then saw a moderately well-written story and experienced pleasant surprise, or began the story with the expectation that it would be exceptionally well-written (expert source) and then saw a moderately well-written story and experienced unpleasant surprise. Smith and Petty (1996) found that expectancy violations between the framing of a message and its content produced greater elaborative processing; readers who saw a message that contradicted its own frame processed the message more regardless of dispositional levels of need for cognition.

Given the participants' expressions of surprise at the expectancy violation in this narrative (reading a moderate-quality story after the expectation that it would be quite poorly written or extraordinarily well-written), this effect could explain the main effect of protagonist representativeness on subsequent opinions across conditions of distraction. Participants may have put in the effort necessary to consider this narrative elaboratively, regardless of distraction

or dispositional preference, as a result of the inadvertent violation of expectations. This increased elaboration may have also arisen because of the perception that neither novelists nor ordinary teenagers would have strong reasons to argue against illegal media use. When readers encounter a rhetorical message that endorses a position counter to the position one would expect the source to hold (i.e. a Republican source advocating for an expansion of Social Security) they engage in greater message processing than when reading a message that aligns with expectations about the source (Cohen, 2003). Source effects also specifically influence how readers engage with narratives; Appel and Malečkar (2012) found that participants' expectations of how much they would enjoy a story influenced actual persuasive outcomes regardless of the content of the story itself. Future studies should explore the effect of expectancy violations around narrative paratext further, including looking at whether it is possible to induce psychological reactance through extreme expectancy violations in narrative structure or format.

This study also found a main effect of protagonist representativeness on subsequent opinions toward illegal media use, possibly even one large enough that it overwhelmed any effect of the interaction between distraction level and representativeness on subsequent opinions. Again, the thought listing data provide some insight into the reasons that this unpredicted effect may have occurred. Several participants chose to comment on the distraction manipulation rather than on the story itself; many of those comments indicated that the interaction between the distraction task (which involved memorizing a number and holding it in one's mind while reading) and the narrative's representativeness information (which listed all information about the protagonist representativeness in numerical format) may have caused participants to focus extensively on numerical information. One participant even reported attempting to memorize all numbers in the text in case they came up again; another participant reported having to stop and remind herself of the memorized digits after each number in the text occurred. Although

participants did not vary in their self-reported perceptions of protagonist representativeness as a function of distraction condition, all participants did have to remember a number (whether long or short) while reading the story and this concurrent task may have produced greater emphasis on the numerical (i.e. representativeness) information in the narrative than would normally occur. The readers' close focus on the numerical information within the narrative may have also been an effect of misplaced participant suspicion; Hauser and Schwarz (2015) found that participants who have already seen manipulation checks in a study are more likely to search for counterintuitive answers and to view manipulations as being potential "traps" that offer an obvious but incorrect answer (p. 3). If participants in this study, influenced by the earlier attention check items, suspected the narrative might be a "trick" designed to sabotage the number memorization task (or vice versa), then they may have focused excessively on the numerical information in the narrative in an effort to avoid being fooled. Future manipulations of cognitive resources as through distraction level should examine whether this manipulation of representativeness information would produce a similar main effect on subsequent attitudes in the absence of a concurrent number-memorization task.

The measure of behavioral intentions included in this study suggests that these attitudes are strong enough that they influence readers' desire to change their behaviors toward illegal media use, with a majority of participants reporting an intention to stop engaging in illegal media use, to educate others about the information covered in this study, or to avoid consuming media obtained illegally when possible. Participants' degree of open-minded thinking on the issue of illegal media use was also above average after they read the narrative, which provides further support for the assertion that the attitude change may have come about partially as a result of considering a new perspective on the issue, but open-minded thinking also did not correlate with

the other outcome measures for participants' attitudes toward illegal media use, suggesting that this attitude property varies independently of opinions toward illegal media use.

Attitude Properties

Although the predicted interaction between the representativeness manipulation and the distraction manipulation did not influence participants' opinions toward illegal media use, it did influence participants' argument perceptions: minimally distracted participants viewed the story as more persuasive when they saw a protagonist representative of most victims of illegal media use, but not a minimally representative protagonist, and highly distracted participants did not differ in their perceptions based on protagonist representativeness. Several other thoughts chose to mention specific quantities that came up in the narrative ($0.19 as the price of the song, 28 song buyers, 12 users, etc.), which suggests strong focus on numerical quantities while reading. Therefore, the manipulation of protagonist representativeness may have successfully produced greater perceptions that the argument was valid, even if the narrative did not succeed at producing differential persuasion. Participants' thought listing data again provide some insight into the mechanism of this effect, because the single most common type of thought listed after reading was an expression of surprise or new awareness about the effects of illegal media use as a result of having been exposed to the narrative from the point of view of a song creator whose work is stolen. These data indicate that most individuals' attitudes toward illegal media use had minimal thought bases and probably low elaboration before they entered the experiment.

Although a majority of participants reported engaging in illegal media use, and the sample was generally positive toward illegal media use before reading the narrative, the narrative clearly exposed most readers to a perspective on the issue that they had not considered before. The emphasis on the new point of view on this issue also suggests that participants' attitudes changing as a result of the representativeness manipulation may have been partially because the

key persuasive element of this narrative is the unique perspective it offers on the issue of illegal media use. If the perspective represented in this narrative can be easily dismissed (suggesting that the events represented within are rare in reality), then the narrative loses its persuasive power, whereas if the perspective is presented as common to most victims of illegal media use then it is more difficult to dismiss. Participants appear to have had two different but common reactions to the narrative: either they came to change their opinions toward illegal media use in light of the idea that most song creators whose music is stolen are small struggling artists like Alex (the narrative protagonist), or they experienced reactance and chose to defend their existing viewpoints through arguing that most song creators whose music is stolen are wealthy artists unlike Alex. These data suggest it was easier for participants who saw the minimally representative narrative to engage in defensiveness, and easier for the participants who saw the highly representative narrative to engage in a perspective shift on this issue.

Further evidence for the importance of thought bases in changing individuals' attitudes toward illegal media use can be found in the measure of perceived elaboration. My analyses examined whether perceived elaboration mediated the influence of distraction on subsequent attitudes, an effect predicted by other work on perceived elaboration and narrative persuasion (Blankenship & Lewis, 2016). Perceived elaboration is a metacognitive measure of how well individuals believe they have engaged in effortful thought while considering a particular message. Therefore, this pattern of mediation suggests that distracted participants perceived themselves as less able to think fully about the information contained in this narrative, and that the lack of careful thought perceptions drove less narrative-consistent attitudes toward illegal media use. Barden and Petty (2008) found that perceived elaboration does strongly (but imperfectly) predict actual cognitive elaboration when reading a persuasive message, so this study may have also produced different levels of cognitive processing across conditions of

distraction, which resulted in different outcomes as a product of the amount of effortful thought participants were willing and able to engage in while reading. Unfortunately, these materials did not include any measures of actual cognitive elaboration that are not self-reported (e.g. choosing strong vs. weak arguments, reporting thought bases, distinguishing message quality) so it is impossible to say for sure that participants' actual thoughtfulness in their consideration of the narrative changed as a result of the distraction manipulation. The presence of an interaction between a distraction while reading and a peripheral cue to message strength (writer expertise) suggests that a cognitive elaboration effect may be occurring in this study, but future studies should examine further whether readers' thoughtfulness varies as a function of their ability and motivation to engage in effortful processing of narratives.

Limitations in Study Design

Pre-reading attitudes.

Although this study was successful in producing strong negative attitudes toward illegal media use in most participants, and in examining the ways that those attitudes vary as a product of narrative characteristics, it was not necessarily successful at tapping participants' views on the subject of illegal media use before they read the narrative. The single-item measure of pre-reading political opinions on the subject of illegal media use embedded in a survey on general political opinions (see Appendix) had relatively small variance, and emerged as a weak but significant negative predictor of participants' post-reading attitudes toward illegal media use. One possible reason that this effect may have occurred is due to range restriction in the single-item measure, which would result in an illusory correlation. Participants' opinions before reading and after reading did not correlate with social desirability, nor was there strong evidence of acquiescence bias in the initial measure of attitudes. The wording of this item also took a very extreme position, suggesting that individuals should be imprisoned for using media illegally, and

it may be that many individuals who were ambivalent or not extreme in their positions toward illegal media use did not endorse this item because it did not capture the full range of possible opinions toward illegal media use. However, the literature on persuasion and attitude consistency suggests that most participants present consistent attitudes most of the time, and that pre-persuasion attitudes are weak to moderate positive predictors of post-persuasion attitudes, so these data suggest that I may not have successfully tapped participants' pre-reading attitudes toward illegal media use with the single item measure I used.

Independent variable manipulations.

This study also may not have been successful in producing large enough differences in participants' distraction levels while reading the narrative to create a meaningful effect on the way that they processed the narrative. Although there was a much higher rate of correct recall for the easy number than the difficult number, suggesting that the memory commitment item which asked participants to explicitly indicate that they would not write the number down was successful, several participants in the low-distraction condition nevertheless reported stopping multiple times while reading to rehearse the number. The emphasis on the importance of remembering the number while reading may have created an impression that the number was more important than the narrative itself, even in the condition with an easy-to-remember number, and therefore not produced the predicted pattern of central and peripheral processing.

The effect of the message manipulation (protagonist representativeness) failing to interact with the manipulation of cognitive resources (distraction task) may have also been a product of this study inducing strong enough motivation to consider the message effortfully that the attenuation of ability to consider it effortfully was not enough to block elaboration. Petty et al. (1981) found that participants who have high levels of personal engagement with the subject of a persuasive communication will consider the message effortfully because they are highly

motivated to do so. Given that the narrative in this study focused on an issue with high levels of personal involvement for undergraduate students as indicated by Mass Testing data, that the protagonist of the narrative is matched demographically to many college students, that participants were forewarned the narrative had a persuasive message, and that the directions in this study further increased personal involvement through informing participants that they had each been custom-matched to one particular narrative based on their responses to the pre-reading measures, cognitive motivation may have been at or near ceiling levels while participants were reading this narrative and therefore the effect of the distraction task on ability was partially unsuccessful. Future studies should examine whether a narrative with lower degrees of personal involvement for readers would produce different effects of distraction on consideration of representativeness information.

Although the interaction between distraction level and source credibility was in line with the hypotheses, the low level of persuasion among participants who saw the allegedly expert writer while highly distracted was not part of the predicted interaction. One possible reason for this unusual outcome—participants perceiving an expert writer as less attractive than an inexpert one—may be history effects around the source manipulation itself. The source manipulation describes the expert writer as "a *New York Times* bestselling novelist," and at the time when participants completed this study, faith in mainstream media were at an all-time low (Swift, 2016). Some participants may have perceived the "novelist" as being associated with *The New York Times*, especially those participants unfamiliar with the *New York Times* lists of best-seller novels, and may have therefore experienced low faith in that source as a product of having low faith in a mainstream news source such as *The New York Times*. One way to disentangle this effect in future studies would be to have one "expert" writer be a journalist while another is a

novelist, to see whether different sources of expertise influence different persuasive outcomes in the current political climate.

Perceived resistance.

This study's measure of perceived resistance to the persuasive attempt contained within the narrative was not successful at tapping a single univariate construct; the internal consistency measure was well below recommended thresholds (Bland & Altman, 1997) and it did not correlate with other outcomes in this study in the predicted directions. This scale may have been subject to acquiescence bias, because participants' mean responses were above the midpoint of the scale for both positively worded items (i.e. "Reading this narrative has changed my mind on this issue") and negatively worded items (i.e. "During the narrative I found myself consciously thinking about other things"), meaning that once the items were properly reverse-coded they did not all measure the same attitude construct. It may be that the scale itself is somewhat short (only six items) or that participants experienced both some positive and negative responses to the narrative while reading which they correctly reported on this scale. More work needs to be done to examine whether a longer measure of perceived resistance can accurately tap participant resistance to a narrative message, or whether this construct is simply not an appropriate measure of responses to a narrative. There are several other important studies that should be done in this area.

Future Directions

This research suggests several possible studies that could further explore the effects of central and peripheral cues on narrative-specific processing. For instance, future studies should further examine the effect of paratext or source information on narrative processing. It could be that paratext which signals the narrative will be boring or incomprehensible (such as paratext indicating that the narrative's source is a socially conservative professor with outdated views)

will cause readers to disengage from a narrative to the extent that they experience no persuasion while reading. Alternately, paratext which signals that a narrative will be surprising in some way (such as a story about the dangers of alcohol written by an Anheuser-Busch employee) could increase reader engagement and produce stronger attitude change, but only in the presence of convincing information that the narrative presents a valid point of view on the issue.

Another area of research that I would like to explore in the future would be investigating whether or not it is possible to generate a valid measure of cognitive elaboration after reading a narrative, and whether or not objective measures of elaboration would predict ability to distinguish between strong and weak arguments. I have some preliminary evidence that narrative readers do distinguish between strong and weak aspects of a narrative when interrogating that message to resist it (i.e. Kane & Blankenship, 2017), because readers will spontaneously choose weaker aspects of a narrative to resist over stronger aspects of the same narrative, but thus far the evidence remains mixed as to where narrative processing belongs on the spectrum of elaborative thinking. The current research found that perceived elaboration mediates the relationship between the independent variables and the persuasive outcome, which suggests that participants who were more persuaded after reading had at least the self-reported perception that they thought effortfully about the narrative as they read it. One way to explore this effect further would be through directed thought-listing tasks where readers would have the option to write about different aspects of a narrative after reading, which would provide a measure of the most memorable and persuasive aspects of the narrative. If participants report better recall of the stronger (i.e. more likely and more valenced) aspects of a narrative, then that would suggest that narrative persuasion operates partially through the processes described in the ELM.

Another aspect of the ELM that I would like to explore further using narrative stimuli would be the possibility of distinctive processing for digits when embedded in a narrative text. The current study found a moderately strong effect of protagonist representativeness on readers' perceptions that the protagonist is likeable, typical of most victims of illegal media use, and a strong reason to oppose illegal media use. The pilot test of distraction effects on narrative processing also found some evidence that readers were devoting a great deal of attention to the numerical aspects of the narrative, given that (approximately fifteen minutes after reading) many participants could recall the specific numerical detail of "100 coins" but had occasionally forgotten the roles of the main characters. The distinctive processing literature (Smith & Hunt, 2000, etc.) suggests that this effect may occur partially because numbers simply stand out from the surrounding text because they are digits and not letters, and that this distinctiveness may lead readers to devote greater attention to those unusual features than to the relatively uniform words around. This effect could also occur because participants are choosing to reread the narrative when answering questions about it; all the studies here mentioned (pilot of the distraction effect, pilot of the narrative materials, the current research) allowed participants the option to go back a few pages and look at the narrative again at any point in the study if they wished to do so. Some readers who read the narrative very quickly and then skimmed it again for review while answering the follow-up questions may have cherry-picked these details as potentially important for the message itself, since the numbers are visually distinct. Alternately, the numerical quantities are fairly concrete in both instances, describing exact quantities of objects (coins offered, songs sold, teenagers stolen from, etc.) and therefore may function as vivid details which draw attention to central features of the narrative.

A future study could disentangle these effects through asking participants to retell a narrative several times, or over long delays (similar to Bartlett, 1932). If numerical information

contained in a narrative receives distinctive processing, then readers will report greater recall of those specific details and less recall of non-numerical details. The patterns of recall could even show systematic distortions over repeated retelling, as with Bartlett's (1932) finding that retellings of a Native American narrative become more aligned with European American tropes and archetypes through repeated recall. I could further decompose the effect through presenting two different versions of a narrative—one with numbers written as digits, one with numbers written as words—to determine whether the digits or names of the numbers influence recall. The same paradigm could test the relative influence of numerical details that are either central or peripheral to the plot of a narrative, both on recall and on subsequent persuasion. Any one of these studies would be an important source of insight into the powerful but as-yet minimally understood process of attitude change that results from reading stories.

Conclusion

The results of this study, and indeed of the entire program of narrative persuasion research, point to a need for social scientists to develop a greater understanding of the ways that narratives can function as persuasive mechanisms. Communicators will often use narrative as a persuasive device in the absence of strong data backing their assertions, as in the case of rare (e.g. shark attacks) or even unheard-of (e.g. transwomen attacking ciswomen in bathrooms) occurrences being used as grounds to implement wasteful or even harmful policies. Although the cost of preventing such an outcome is almost certainly greater than then outcome itself, this kind of anecdotal argument is often highly effective at convincing voters and readers to endorse certain policies or laws. We now know thanks to narrative persuasion research that these anecdotes are so effective as persuasive mechanisms, despite being theoretically "weak" evidence in favor of a particular position, partially because they make use of the techniques of vivid imagery and empathetic appeals that make narratives so engaging for message consumers

(Anderson, 1983, p. 93). However, we do not yet have the full picture as to how readers engage with these messages, what makes some stories transporting while others are not, and how narratives produce strong, lasting changes in attitudes while often not presenting any formal arguments at all in favor of a particular position. Given the current concern over fake news stories—which tend to be vivid and highly engaging but minimally logical or evidence driven—that persuade social media users to endorse or reject certain political candidates, and the even greater concern that the President of the United States can sway public opinion without needing to use data or logic to back his positions, the imperative to understand why narratives persuade their readers and how those readers can resist is greater than ever.

This research provides one more small piece of the puzzle about why weak evidence can produce strong attitude change when couched in the form of a narrative. Participants engage fully with narrative messages only when they have the ability and motivation to do so, focusing excessively on a narrative's source if they are distracted by a concurrent task that taxes the working memory. The Elaboration Likelihood Model of persuasion can therefore inform future work disentangling the reasons that narrative, while still a unique category of persuasive mechanism, also makes use of rhetorical devices that appeal intuitively to readers and produce attitude change. This work and future studies will inform individuals about where the power of narrative to produce attitude change arises, and how consumers can approach narratives with a critical lens in order to arrive at well-informed opinions not swayed by vivid but illogical anecdotes.

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APPENDIX A: STUDY MATERIALS

Predictor Variables

Need for affect.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

1. If I reflect on my past, I see that I tend to be afraid of feeling emotions.*
2. I have trouble telling the people close to me that I love them.*
3. I feel that I need to experience strong emotions regularly.
4. Emotions help people get along in life.
5. I am a very emotional person.
6. I think that it is important to explore my feelings.
7. I approach situations in which I expect to experience strong emotions.
8. I find strong emotions overwhelming and therefore try to avoid them.*
9. I would prefer not to experience either the lows or highs of emotion.*
10. I do not know how to handle my emotions, so I avoid them.*
11. Emotions are dangerous—they tend to get me into situations that I would rather avoid.*
12. Acting on one's emotions is always a mistake.*
13. We should indulge our emotions.
14. Displays of emotion are embarrassing.*
15. Strong emotions are generally beneficial.
16. People can function most efficiently when they are not experiencing strong emotions.*
17. The experience of emotions promotes human survival.
18. It is important for me to be in touch with my feelings.
19. It is important for me to know how others are feeling.

20. I like to dwell on my emotions.
21. I am paying close attention to these items.†
22. I wish I could feel less emotion.*
23. Avoiding emotional events helps me sleep better at night.*
24. I am sometimes afraid of how I might act if I become too emotional.*
25. I feel I need a good cry every now and then.
26. I would love to be like "Mr. Spock," who is totally logical and experiences little emotion.*
27. I like decorating my bedroom with a lot of pictures and posters of things that are emotionally significant to me.

* Item is reverse-scored.

† Item has been added as an attention check.

Current mood.

Most modern theories about individuals' media preferences recognize the fact that decisions do not take place in a vacuum. Individual preferences and current mood, along with situational variables, can greatly impact the media we consume. In order to facilitate our research on preferences for fiction, we are interested in knowing certain factors about you, the story consumer. Specifically, we are interested in whether you actually take the time to read the directions; if not, then some of our materials that rely on changes in the instructions will be ineffective. So, in order to demonstrate that you have read the instructions, please ignore the mood items below, as well as the continue button. Instead, simply click on the title at the top of this screen (i.e. "Current Mood") to proceed to the next screen. Thank you very much.

What is your current mood? (Choose all that apply.)

1. Happy

2. Angry
3. Content
4. Tired
5. Frustrated
6. Excited
7. Sad
8. Annoyed
9. Surprised
10. Awed
11. Disgusted
12. Bored

CONTINUE

Need for cognition.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

1. I would prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun.*
4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.*
5. I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something.*
6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to.*

8. I prefer to think about small, daily projects to long-term ones.*

9. I like tasks that require little thought once I've learned them.*

10. The idea of relying on thought to make my way to the top appeals to me.

11. I really enjoy a task that involves coming up with new solutions to problems.

12. Learning new ways to think doesn't excite me very much.*

13. I prefer my life to be filled with puzzles that I must solve.

14. The notion of thinking abstractly is appealing to me.

15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.

16. I feel relief rather than satisfaction after completing a task that required a lot of mental effort.*

17. It's enough for me that something gets the job done; I don't care how or why it works.*

18. I usually end up deliberating about issues even when they do not affect me personally.

* Item is reverse-scored

Political attitudes scale.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

1. The U.S. should have stricter gun control laws.
2. Abortion should be illegal in the United States.
3. Same-sex marriage should be legal in the U.S.
4. The U.S. should have capital punishment (the death penalty) for some crimes.
5. Affirmative action policies should continue to dictate hiring policies for U.S. businesses.
6. People should go to prison for illegally downloading or streaming copyrighted material in the United States.

7. College education should be free in the U.S.
8. The U.S. should have universal free health care.
9. Texting while driving should be punishable by permanently losing one's driver's license in the U.S.
10. The U.S. legal drinking age should be lowered to 18.
11. The United States government should decriminalize marijuana possession.
12. The U.S. should implement mandatory drug testing for all social security recipients.

Internet media use scale.

1. What percent of music that you own did you download illegally?

    a. 0%
    b. 1% - 9%
    c. 11 - 30%
    d. 31% - 50%
    e. 51% - 70%
    f. 71% - 99%
    g. 100%

2. What percent of software that you use did you download illegally?

    a. 0%
    b. 1% - 9%
    c. 11 - 30%
    d. 31% - 50%
    e. 51% - 70%
    f. 71% - 99%
    g. 100%

3. What percent of movies that you watch do you stream or download illegally?

    a. 0%
    b. 1% - 9%
    c. 11 - 30%
    d. 31% - 50%
    e. 51% - 70%
    f. 71% - 99%
    g. 100%

4. What percent of television episodes that you watch do you view or download illegally?

a. 0%
b. 1% - 9%
c. 11 - 30%
d. 31% - 50%
e. 51% - 70%
f. 71% - 99%
g. 100%

5. What percent of books that you read do you view or download illegally?

a. 0%
b. 1% - 9%
c. 11 - 30%
d. 31% - 50%
e. 51% - 70%
f. 71% - 99%
g. 100%

6. What percent of video games that you play do you use or download illegally?
a. 0%
b. 1% - 9%
c. 11 - 30%
d. 31% - 50%
e. 51% - 70%
f. 71% - 99%
g. 100%

Independent Variables

Cover story.

Based on your responses to the previous items, we have determined that we can learn the most by asking your opinion about the following story:

"AlexSong"

Judging from your reported preferences for thinking style and media consumption, we believe that the author of this narrative should have a good match with your thinking style. Please consider the narrative closely in light of your own preferences and opinions.

Non-attractive source instructions.

Please read the following narrative. It was written by a 14-year-old high school student named Taylor, as a part of a class assignment on creative writing. It expresses the student's opinion on illegal media use. It is being tested for use on future surveys. You will be asked to report your opinion on the story and the arguments it presents after reading.

Attractive source instructions.

Please read the following narrative. It was written by a *New York Times* bestselling novelist (who will remain anonymous until the debriefing portion of this survey) as a magazine editorial expressing the novelist's opinion on illegal media use. It is being tested for use on future surveys. You will be asked to report your opinion on the story and the arguments it presents after reading.

Low-distraction condition instructions.

We are interested in how well individuals can engage in multiple tasks at once. Therefore, we would like you to try and remember the following number while reading the narrative you have been assigned so you can enter it later. The number is:

99

High-distraction condition instructions.

We are interested in how well individuals can engage in multiple tasks at once. Therefore, we would like you to try and remember the following number while reading the narrative you have been assigned so you can enter it later. The number is:

5184640138

Narrative stimulus - high representativeness.

[paragraphs that differ between versions are in bold font]

Alex could barely contain her excitement. After months of work, her new song was finally ready to upload. For weeks now she had rushed home from school every day in order to record herself singing, barricading the door of her room and begging her parents to keep their background noises away as she went over the notes she had written time and again.

By now there were dozens of drafts of the song all over her computer, each one a little closer to that perfect sound she wanted. Files AlexSong(1) through AlexSong(76) clogged up her desktop, but all that effort had been worth it, because now the song sounded exactly the way she had heard it in her head. The notes cascaded together, clear and rhythmic.

This time she knew she had gotten it right. As she sat at the computer, eyes closed, she smiled to herself at the perfect notes filtering through her ears in flawless clarity. The song was a cappella, just three different combinations of her voice harmonizing together, and the sound floating through her well-loved green earbuds was better than she could have ever hoped for. AlexSong was just about perfect by now, and she couldn't wait to share it with other people.

AlexSong played through to its final notes, her voice trailing off exactly the way she had trained it to after months of practice. Alex could feel herself smiling as she slowly took the earbuds out of her ears.

She could feel her fingers trembling just a little bit as she clicked the mouse over the final version of AlexSong. She dragged it across her desktop to the internet browser, watching the file load slowly onto the file-sharing website. The price was only $0.19 for this song, because Alex wasn’t making music for the money. This project was about sharing her voice with anyone who wanted to listen.

For the next twenty minutes Alex waited, watching the screen, fingers crossed on the desk in front of her so hard her knuckles were turning white.

She laughed out loud with joy when first one person, and then another, paid the low price to hear her song. The fifteen-second preview that most people got to hear was clearly drawing some attention. People wanted to hear her voice!

Alex had become one of over ten million (1,000,000) users who upload self-created content to file sharing sites such as YouTube and Tumblr every day. Like many modern high school students, she could use the new freedoms afforded by the internet as a form of self-expression. Thousands of American students like Alex have the chance to share their artistic endeavors with friends and strangers alike.

Alex's mother called her away to dinner before she had the chance to see any more sales of her song. However, by the next day Alex had sold four more copies of the song to people who were interested. There were even two comments on her demo. One mentioned that she had an awesome voice. Another one assured her that people loved her ability to combine her high-pitched melody line with a lower, more complex harmony.

A month went by, and she couldn't help but notice that sales of AlexSong trickled off.

In fact, people had stopped buying the song entirely.

Alex tried to be realistic. She knew that she was an amateur artist, and that even the relatively few 28 sales she had achieved would be more than a lot of people would get. It was still a little disappointing to see that after the first two weeks of AlexSong being available no one else had bought it, but at least those 28 people had liked her voice enough to pay $0.19 to hear more. It was something.

Like over 95% of amateur artists struggling to break into the online music scene, Alex was unable to achieve success beyond that first tantalizing taste of feedback. She

wished that she had been able to share her song with more people, but Alex was realistic, and understood that her song must not have been that good if people weren't willing to pay for it.

One day, she sat at her computer refreshing the window of the file sharing website as if hoping that she would get a nineteenth sale out of AlexSong. There was a sudden ping sound as Alex's friend Kim sent her a message on Facebook.

When Alex opened Kim's message, it contained a link. Beneath it Kim had written "Isn't this your song?"

Nauseous with anxiety, Alex clicked on the link. It led her to a website where people uploaded music and others could download it for free. The file featured on this page was called MySong, and when Alex clicked the Play button, her own voice came out of the speakers of her laptop. It was AlexSong. And it had over four hundred illegal downloads.

Worse still, whoever had stolen her song and then uploaded it here had claimed it was their song. The user, who was just known as JBB32557, said the song was an original. There were over thirty comments telling the person what a great song it was.

Alex stared at the screen, so horrified she didn't even know what to do. This person was using her song as a way to get hits, and was preventing people from downloading it from her file sharing account, meaning that she wasn't getting paid for the music that she had worked for months to create. There wasn't a name or an email address attached to this JBB32557, and there was no way to contact the person.

Desperate, Alex typed a comment underneath the file upload for her own song: "This is my song, not yours! Please stop giving it out to people, and please take this file down, because you're stealing something I made!"

Immediately she got a reply back. "LOL, stop whining," someone wrote. "Everybody does it, so there's nothing wrong with sharing stuff for free."

Alex stared at the comment for a few seconds, wondering whether she should keep arguing with this person. Instead she returned to Facebook, and wrote back to her friend Kim: "That is my song! WHAT DO I DO?"

Kim sent back a message that said, "I don't think there's anything you can do. L" Attached with the message were several more links with information on internet piracy.

Alex read through the information her friend had sent. She learned that less than 0.01% of internet piracy ever gets caught, and that even when people can track an act of piracy, or file stealing, to a single IP address, most of the time no one gets prosecuted. She found out that the most severe penalty for stealing a song would be a fine of less than $100, and that even if she exhaustively recorded the process of having created her song first there was a good chance she wouldn't be able to prove in court that she owned the music she had created. There was simply no way for her to enforce her own right to use her own song.

Alex's experiences are only too common in the new legal realm of the internet. The technology that individuals can use to steal media access has outstripped the government's ability to protect the creators of those media. Most people who download music illegally rationalize the decision by assuming that they are only depriving corporations such as Apple of their patronage, but in reality small artists such as Alex are the real victims of illegal downloading. Each year, over 516,000 of the artists who try to break into the music industry drop out without selling a single song. Many of them are unable to continue to make music because they are not paid for their labor; instead their songs are illegally copied and shared.

In fact, if Alex used the song she had made for herself and continued to charge money for it, this JBB32557 person who had stolen her music could try and claim that she was charging money for someone else's song. Alex had no legal rights to her own intellectual property.

Just like that, Alex had lost a piece of music that she had worked over for hours. It was no longer, in fact, Alex's song. Now it belonged to anyone who had a computer and didn't mind stealing music from the website, never thinking about the fellow teen who was on the other side of the screen.

Narrative stimulus - low representativeness.

Alex could barely contain her excitement. After months of work, her new song was finally ready to upload. For weeks now she had rushed home from school every day in order to record herself singing, barricading the door of her room and begging her parents to keep their background noises away as she went over the notes she had written time and again.

By now there were dozens of drafts of the song all over her computer, each one a little closer to that perfect sound she wanted. Files AlexSong(1) through AlexSong(76) clogged up her desktop, but all that effort had been worth it, because now the song sounded exactly the way she had heard it in her head. The notes cascaded together, clear and rhythmic.

This time she knew she had gotten it right. As she sat at the computer, eyes closed, she smiled to herself at the perfect notes filtering through her ears in flawless clarity. The song was a cappella, just three different combinations of her voice harmonizing together, and the sound floating through her well-loved green earbuds was better than she could have ever hoped for. AlexSong was just about perfect by now, and she couldn't wait to share it with other people.

AlexSong played through to its final notes, her voice trailing off exactly the way she had trained it to after months of practice. Alex could feel herself smiling as she slowly took the earbuds out of her ears.

She could feel her fingers trembling just a little bit as she clicked the mouse over the final version of AlexSong. She dragged it across her desktop to the internet browser, watching the file load slowly onto the file-sharing website. The price was only $0.19 for this song, because Alex wasn't making music for the money. This project was about sharing her voice with anyone who wanted to listen.

For the next twenty minutes Alex waited, watching the screen, fingers crossed on the desk in front of her so hard her knuckles were turning white.

She laughed out loud with joy when first one person, and then another, paid the low price to hear her song. The fifteen-second preview that most people got to hear was clearly drawing some attention. People wanted to hear her voice!

Alex had become one of over a dozen (12) users who upload self-created content to file sharing sites such as YouTube and Tumblr every day. Like some modern high school students, she could use the new freedoms afforded by the internet as a form of self-expression. Dozens of American students like Alex have the chance to share their artistic endeavors with friends and strangers alike.

Alex's mother called her away to dinner before she had the chance to see any more sales of her song. However, by the next day Alex had sold four more copies of the song to people who were interested. There were even two comments on her demo. One mentioned that she had an awesome voice. Another one assured her that people loved her ability to combine her high-pitched melody line with a lower, more complex harmony.

A month went by, and she couldn't help but notice that sales of AlexSong trickled off.

In fact, people had stopped buying the song entirely.

Alex tried to be realistic. She knew that she was an amateur artist, and that even the relatively few 28 sales she had achieved would be more than a lot of people would get. It was

still a little disappointing to see that after the first two weeks of AlexSong being available no one else had bought it, but at least those 28 people had liked her voice enough to pay $0.19 to hear more. It was something.

Like almost 5% of amateur artists struggling to break into the online music scene, Alex was unable to achieve success beyond that first tantalizing taste of feedback. She wished that she had been able to share her song with more people, but Alex was realistic, and understood that her song must not have been that good if people weren't willing to pay for it.

One day, she sat at her computer refreshing the window of the file sharing website as if hoping that she would get a nineteenth sale out of AlexSong. There was a sudden ping sound as Alex's friend Kim sent her a message on Facebook.

When Alex opened Kim's message, it contained a link. Beneath it Kim had written "Isn't this your song?"

Nauseous with anxiety, Alex clicked on the link. It led her to a website where people uploaded music and others could download it for free. The file featured on this page was called MySong, and when Alex clicked the Play button, her own voice came out of the speakers of her laptop. It was AlexSong. And it had over four hundred illegal downloads.

Worse still, whoever had stolen her song and then uploaded it here had claimed it was their song. The user, who was just known as JBB32557, said the song was an original. There were over thirty comments telling the person what a great song it was.

Alex stared at the screen, so horrified she didn't even know what to do. This person was using her song as a way to get hits, and was preventing people from downloading it from her file sharing account, meaning that she wasn't getting paid for the music that she had worked for

months to create. There wasn't a name or an email address attached to this JBB32557, and there was no way to contact the person.

Desperate, Alex typed a comment underneath the file upload for her own song: "This is my song, not yours! Please stop giving it out to people, and please take this file down, because you're stealing something I made!"

Immediately she got a reply back. "LOL, stop whining," someone wrote. "Everybody does it, so there's nothing wrong with sharing stuff for free."

Alex stared at the comment for a few seconds, wondering whether she should keep arguing with this person. Instead she returned to Facebook, and wrote back to her friend Kim: "That is my song! WHAT DO I DO?"

Kim sent back a message that said, "I don't think there's anything you can do. L" Attached with the message were several more links with information on internet piracy.

Alex read through the information her friend had sent. She learned that less than 70% of internet piracy ever gets caught, and that even when people can track an act of piracy, or file stealing, to a single IP address, most of the time no one gets prosecuted. She found out that the most severe penalty for stealing a song would be a fine of less than $100,000 and that even if she exhaustively recorded the process of having created her song first there was a good chance she wouldn't be able to prove in court that she owned the music she had created. There was simply no way for her to enforce her own right to use her own song.

Alex's experiences could happen in the new legal realm of the internet. The technology that individuals can use to steal media access has outstripped the government's ability to protect the creators of those media. Some people who download music illegally rationalize the decision by assuming that they are only depriving corporations such as Apple of their patronage, but in reality small artists such as Alex are the occasional victims

of illegal downloading as well. Each year, a few dozen (up to 100) of the artists who try to break into the music industry drop out without selling a single song. Some of them are unable to continue to make music because they are not paid for their labor; instead their songs are illegally copied and shared.

In fact, if Alex used the song she had made for herself and continued to charge money for it, this JBB32557 person who had stolen her music could try and claim that she was charging money for someone else's song. Alex had no legal rights to her own intellectual property.

Just like that, Alex had lost a piece of music that she had worked over for weeks. It was no longer, in fact, Alex's song. Now it belonged to anyone who had a computer and didn't mind stealing music from the website, never thinking about the fellow teen who was on the other side of the screen.

Manipulation Checks

Number check.

Please enter the number you memorized before beginning the story: _____

Narrative check.

1. What is the name of the main character of this story?

    a. Kim
    b. JBB32557
    c. Jim
    d. Taylor
    e. Alex

2. What is the main argument this narrative presents?

    a. The U.S. should decriminalize illegal media use
    b. Jazz music is superior to rap music
    c. Illegal media use harms song creators
    d. Alex is a foolish girl who does not make good decisions
    e. Amateur musicians should be barred from uploading media

3. What is the name of the disputed song in this narrative?

a. Song One
b. JBB32557
c. Enter Sandman
d. AlexSong
e. Hotline Bling

4. Who is Kim?

a. Alex's father
b. The person who steals the song from Alex
c. Alex's online persona
d. JBB32557
e. A friend of Alex's

5. Why did people stop buying Alex's song?

a. Someone had stolen it and posted it online for free
b. Alex had a terrible singing voice and no one wanted it
c. Alex used copyrighted material to make her song without permission
d. The website where Alex posted her song had it taken down
e. Kim posted a better song than Alex and everyone wanted that one instead

6. Why was Alex angry to find out how her song was being distributed?

a. She was not getting credit for her own work
b. JBB32557 was her ex-boyfriend
c. Someone had changed the name of her song
d. JBB32557 was secretly Kim pretending to be someone else
e. She needed the money from her song to pay rent

Dependent Variables

Thought listing.

Please list any thoughts you had while reading the narrative:

Narrative transportation.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

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 finishing the narrative, 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 paid attention to the narrative.†
9. I found myself thinking of ways the narrative could have turned out differently.
10. I found my mind wandering while reading the narrative. *
11. The events in the narrative are relevant to my everyday life.
12. The events of the narrative have changed my life.
13. While reading the narrative I had a vivid image of the main character.

* Item is reverse-scored.

† Item has been added as an attention check.

Persuasion measure.

1. Illegal media use is

1	2	3	4	5	6	7	8	9
Foolish								Wise

2. Illegal media use is

1	2	3	4	5	6	7	8	9

Harmful								Harmless

3. Illegal media use is

1	2	3	4	5	6	7	8	9
Unproblematic								Problematic

4. Illegal media use is

1	2	3	4	5	6	7	8	9
Good								Bad

5. Illegal media use is

1	2	3	4	5	6	7	8	9
Unacceptable								Acceptable

Character opinions scale.

All items will have the answer options “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree.”

1. Alex is highly typical of most victims of illegal downloading.
2. In any group of 100 internet media uploaders, 50 would have similar experiences to Alex.
3. Alex’s story presents a strong argument against illegal media use.

4. Alex represents a typical modern amateur musician.
5. Alex's story has persuaded me to consider new information on illegal media use.
6. After reading about Alex, I would like more information on illegal media use.
7. I agree with the information presented in Alex's story.
8. This story presents coherent arguments.
9. Alex's story provides reasons to avoid engaging in illegal media use.

Character identification scale.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

1. I can relate to Alex's experiences.
2. Alex is similar to many modern teenagers.
3. There are ways that Alex is like me.
4. I understand Alex's point of view on events.
5. I like Alex.
6. I can empathize with Alex.

Positive and negative affect scale.

All items will have the answer options "not at all," "a little," "moderately," "quite a bit," and "very much."

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt the following emotions in the past 15 minutes. Use the following scale to report your answers:

1. Enthusiastic
2. Hostile

3. Interested
4. Irritable
5. Determined
6. Guilty
7. Excited
8. Ashamed
9. Inspired
10. Nervous
11. Alert
12. Jittery
13. Active
14. Distressed
15. Strong
16. Upset
17. Proud
18. Afraid
19. Attentive
20. Scared

Argument perceptions scale.

All items will have the answer options “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree.”

1. This story presents convincing reasons that people should not download music illegally.
2. Alex is highly representative of most victims of illegal music downloading.
3. This story makes a clear point about illegal media use.

4. The narrative is well-written.
5. The narrative has accurate information.

Perceived elaboration scale.

1. To what extent did you pay attention to the narrative information on illegal media use?

1	2	3	4	5	6	7	8	9
A little								A lot

2. To what extent did you think carefully about the narrative information on illegal media use?

1	2	3	4	5	6	7	8	9
A little								A lot

3. To what extent did you take the time you needed to carefully read the narrative?

1	2	3	4	5	6	7	8	9
A little								A lot

4. To what extent did you take the time you needed to think about the narrative as you read?

1	2	3	4	5	6	7	8	9
A little								A lot

5. To what extent did you take the time you needed to read the factual information in the narrative?

1	2	3	4	5	6	7	8	9
A little								A lot

Open-minded thinking scale.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

1. I have no patience for arguments about illegal media use that I disagree with.
2. I often "tune out" arguments about illegal media use that I disagree with.
3. I believe it is a waste of time to pay attention to certain ideas about illegal media use.
4. I try to reserve judgment until I have a chance to hear arguments from both sides of the issue of illegal media use.
5. When it comes to illegal media use, I am open to considering other viewpoints.
6. When thinking about illegal media use, I consider as many different options as possible.

Affective and cognitive bases scale.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

1. My current opinion on illegal media use is primarily influenced by my emotions.
2. My current opinion on illegal media use is primarily influenced by my beliefs about illegal media use.
3. I have strong feelings on the subject of illegal media use.
4. I am very certain in my thoughts about illegal media use.

5. The narrative has influenced my current opinion on illegal media use.

Perceived resistance scale.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

1. The person who wrote this narrative is highly knowledgeable about this subject.
2. During the narrative I found myself consciously thinking about other things.
3. There was no point in reading this narrative because nothing could ever change my mind about this issue.
4. Reading this narrative has changed my mind on this issue.
5. I am more strongly committed to my initial attitude now than I was before reading this narrative.
6. I would like to read more narratives written by this same person.

Behavioral intention measure.

All items will have the answer options "strongly agree," "agree," "neutral," "disagree," and "strongly disagree."

1. I will change my media use habits in the future.
2. I plan to seek more information on illegal media use.
3. I would vote to impose harsher penalties on individuals who download media illegally.
4. I am paying close attention to this questionnaire. †
5. I would vote to decriminalize illegal media use.
6. I will do my best to prevent all illegal media use in the future.

† Item has been added as an attention check.

Social desirability scale.

People vary in the ways that they relate to close others (as social agents), and to broader societies (as citizens.) We would like to know more about your general patterns of behavior both personally and as a citizen. Please indicate to what extent the following statements are true of your behavior.

All items will have the response options "not at all true," "occasionally true," "somewhat true," "often true," and "very true"

1. My first impressions of people usually turn out to be right.

*2. It would be hard for me to break any of my bad habits.

3. I don't care to know what other people really think of me.

*4. I have not always been honest with myself

5. I always know why I like things.

*6. When my emotions are aroused, it biases my thinking.

7. Once I've made up my mind, other people can seldom change my opinion.

*8. I am not a safe driver when I exceed the speed limit.

9. I am fully in control of my own fate.

*10. It's hard for me to shut off a disturbing thought.

11. I never regret my decisions.

*12. I sometimes lose out on things because I can't make up my mind soon enough.

13. The reason I vote is because my vote can make a difference.

*14. My parents were not always fair when they punished me.

15. I am a completely rational person.

*16. I rarely appreciate criticism.

17. I am very confident of my judgments.

*18. I have sometimes doubted my ability as a lover.

19. It's all right with me if some people happen to dislike me.

*20. I don't always know the reasons why I do the things I do.

*21. I sometimes tell lies if I have to.

22. I never cover up my mistakes.

*23. There have been occasions when I have taken advantage of someone.

24. I never swear.

*25. I sometimes try to get even rather than forgive and forget.

26. I always obey laws, even if I'm unlikely to get caught.

*27. I have said something bad about a friend behind his or her back.

28. When I hear people talking privately, I avoid listening.

29. I have volunteered at a soup kitchen or similar altruistic organization many times this year.

30. I always recycle all of my papers and empty containers.

*31. When I was young I sometimes stole things.

32. I have never dropped litter on the street

*33. I sometimes drive faster than the speed limit

34. I never read sexy books or magazines.

*35. I have done things that I don't tell other people about.

36. I never take things that don't belong to me.

*37. I have taken sick-leave from work or school even though I wasn't really sick.

38. I have never damaged a library book or store merchandise without reporting it.

*39. I have some pretty awful habits.

40. I don't gossip about other people's business.

* Item is reverse-scored.

Demographic information.

We would like to know a little about you for our records. Please keep in mind this information will be kept confidential.

1. What is your gender?

    a. Male
    b. Female
    c. Other

2. What is your class standing?

    a. Freshman
    b. Sophomore
    c. Junior
    d. Senior
    e. Other

3. What is your age?

    a. 18
    b. 19
    c. 20
    d. 21
    e. 22
    f. 23
    g. older than 23

4. What is your race or ethnicity?

    a. Asian or Pacific Islander
    b. Black/African American
    c. White/European American
    d. Hispanic/Latinx
    e. Mixed race
    f. Other

Debriefing questionnaire.

Now that you have finished the study, we would like you to answer some questions about your responses. Please give your honest answers.

1. How honest were you in your responses?

1	2	3	4	5	6	7	8	9
Not at all honest								Very honest

2. How true/valid were your responses?

1	2	3	4	5	6	7	8	9
Not at all true/valid								Very true/valid

3. How distracted were you while completing the survey?

1	2	3	4	5	6	7	8	9
Not at all distracted								Very distracted

4. Were you doing anything else (e.g., homework, watching television, etc.) while completing the survey?

No	Yes

5. How much effort did you put into completing the survey?

1	2	3	4	5	6	7	8	9
No effort at all								A lot of effort

APPENDIX B: IRB APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

Date: 5/9/2016

To: Kelly Kane
W112 Lagomarcino

CC: Dr. Kevin Blankenship
W112 Lagomarcino
Wade Kidner
W112 Lagomarcino Hall

From: Office for Responsible Research

Title: Where Do Your Stories Come From?

IRB ID: 16-174

Approval Date:	5/9/2016	**Date for Continuing Review:**	5/8/2018
Submission Type:	New	**Review Type:**	Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University according to the dates shown above. Please refer to the IRB ID number shown above in all correspondence regarding this study.

To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- **Use only the approved study materials** in your research, **including the recruitment materials and informed consent documents that have the IRB approval stamp.**
- **Retain signed informed consent documents for 3 years after the close of the study**, when documented consent is required.
- **Obtain IRB approval prior to implementing any changes** to the study by submitting a Modification Form for Non-Exempt Research or Amendment for Personnel Changes form, as necessary.
- **Immediately inform the IRB of** (1) **all serious and/or unexpected adverse experiences** involving risks to subjects or others; and (2) **any other unanticipated problems involving risks** to subjects or others.
- **Stop all research activity if IRB approval lapses**, unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- **Complete a new continuing review form** at least three to four weeks prior to the **date for continuing review** as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Please be aware that IRB approval means that you have met the requirements of federal regulations and ISU policies governing human subjects research. **Approval from other entities may also be needed.** For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **IRB approval in no way implies or guarantees that permission from these other entities will be granted.**

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.