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EXPLORING SUBTEXT PROCESSING IN NARRATIVE PERSUASION: THE ROLE OF
EUDAIMONIC ENTERTAINMENT USE MOTIVATION AND
A SUPPLEMENTAL CONCLUSION SCENE

by

ELIZABETH LEIGH COHEN

Under the Direction of Cynthia Hoffner

ABSTRACT

This study sought to expand current narrative persuasion models by examining the role of subtext processing. The extended elaboration likelihood model suggests that transportation leads to persuasion by reducing counterarguments to stories' persuasive subtexts. The model implicitly argues that transportation should reduce total subtext processing, including counterarguments and intended elaboration. But this study reasoned that people with stronger eudaimonic motivation to have meaningful entertainment experiences, would put more effort into processing stories' subtexts while engaging with the narrative. Because less eudaimonically motivated individuals may be at risk for missing the subtext, it was also expected that adding a supplemental conclusion scene that reiterates the intended message would facilitate persuasion.

Following a pre-test survey, 201 undergraduate students were randomly assigned to view an episode of the crime drama *Numb3rs*: one of two versions of "Harvest," designed to promote

organ donation (with or without a conclusion scene), or a control episode. After viewing, participants completed a thought-listing task and second survey.

Results show that “Harvest” did not result in persuasive outcomes related to organ donation. Transportation was a marginally significant positive predictor of total subtext processing. Contrary to predictions, eudaimonic motivation negatively predicted amount of total subtext processing.

Eudaimonic motivation also negatively (but marginally) predicted doctor mistrust, but this effect was moderated by conclusion condition: eudaimonic motivation was negatively associated with doctor mistrust only in the no conclusion condition. Eudaimonic motivation was also negatively (but marginally) associated with intended elaboration. Further examination showed that, compared to people with low eudaimonic motivation, those with high eudaimonic motivation were less likely to engage in intended elaboration, but only in the no conclusion condition. This pattern of findings provides indirect evidence that intended elaboration was responsible for decreasing doctor mistrust among people with high eudaimonic motivation who saw the conclusion. But surprisingly, intended elaboration was not directly related to any persuasive outcomes.

The findings tentatively suggest that transportation and subtext processing can coexist and that eudaimonic motivation can affect the extent to which viewers engage in subtext processing during narrative engagement. The results also indicate that supplemental conclusions may be useful tools for narrative persuasion.

INDEX WORDS: Entertainment use motivation, Eudaimonia, Persuasion, Narrative, Elaboration likelihood model, Extended elaboration likelihood model, Epilogues, Transportation, Organ Donation, Entertainment-education

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ELIZABETH LEIGH COHEN

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

2012

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August 2012

ACKNOWLEDGEMENTS

My dissertation is the capstone of a life-long educational journey. Many people deserve acknowledgement for their contributions to this long-gestating accomplishment.

Nobody has influenced my development as a scholar more than Cindy Hoffner. Her research and teaching inspired me, and her mentorship gave me the skills, professional socialization, and confidence to become an independent scholar. This dissertation is a direct product of her hours of dedication, her firm guidance, her unrelenting patience, and her unwavering faith in me. I hope that I one day have the opportunity to be half as good a mentor to someone else.

I am also indebted to my committee members, Yuki Fujioka, Ed Rigdon, Natalie Tindall, and Holley Wilkin. Their invaluable insights shaped this dissertation for the better. Holley Wilkin deserves a special mention for her mentorship of me during countless other research projects, which has been instrumental in my academic development.

Several remarkable teachers in my life gave me the tools and inspiration to complete this degree. I credit Kim Darnell, Grace Lyon, Patrick Norton, Jim Roberts, Mary Stuckey, and Karen Vaughn-Smith with teaching me how to think critically, and showing me what good instruction looks like.

I am thankful to have many colleagues-turned-friends at Georgia State University who regularly provided research assistance, but more importantly provided companionship, without which, this project would have been painful to finish. In particular, I thank Michael Tannebaum and Steve Stuglin for never turning down an opportunity to help me make a deadline. Likewise, I am exceedingly grateful to Missy Plew and Melissa Miller, whose friendship (and research assistance) kept me sane during insane times. Both were a constant source of comfort to me,

always there to listen during trials, and to celebrate when the trials were over. Finally, it is incomprehensible to me how anyone could complete a dissertation without a friend like Anita Atwell-Seate. We completed our dissertations together, even though we were very far apart geographically, and frankly, I don't think I could have done it alone. She is the Petty to my Cacioppo, my colleague, my confidant, my best friend.

I also owe a great deal of my success and happiness to my parents, Cathy Martin Kilgore and Michael Palnau, who always encouraged me to indulge my curiosities and supported my decisions about which paths to follow. Hannah and Shimon Ghertner, my "extra parents" deserve credit too for their reliable emotional support during the past 10 years.

Lastly, I thank Benjamin, who probably did not realize what it would mean to be the husband of a doctoral student when he married me, but embraced the role all the same. All of the sacrifices that it took for me to complete this dissertation, my second half made as well. Benjamin's unconditional support of my dream is one of the sincerest expressions of love than I can think of, and I feel so grateful.

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1. INTRODUCTION

Probably few would deny the ability of stories to educate and persuade. Stories have been both heralded and reviled for their ability to influence people's attitudes and behavior throughout history. For instance, Harriet Beecher Stowe's 1852 novel, *Uncle Tom's Cabin*, is credited as a book that tipped public opinion in favor of the abolitionist cause, and the inundation of propaganda films from Hollywood during World War II is said to be partially responsible for increased military recruitment and positive public opinion toward the war effort (Koppes & Black, 1987). The persuasive power of narratives has also been widely feared. In her review of textbook censorship in America, Delfattore (2004) observed that ultimately, each censorship effort is premised on the assumption that stories can transmit lessons.

Despite a general consensus that stories can persuade, research on psychological persuasion processes has remained mostly focused on studying the impact of non-narrative messages. But, growth in the popularity of entertainment education has breathed life into efforts to understand narrative persuasion processes. Entertainment education (E-E) refers to a strategy used to positively influence audience awareness, attitudes, or behaviors by embedding educational, prosocial messages into entertainment media, such as television or radio programs or digital games (see Singhal, Cody, Rogers, & Sabido, 2004). E-E research has resulted in an extension of non-narrative persuasion models to account for unique qualities of narratives that facilitate persuasion differently compared non-narrative messages. Specifically, narrative persuasion is thought to occur because narrative elements (e.g., plot, characters, etc.) camouflage persuasive subtexts (i.e., the embedded messages) and occupy people's focus, thereby reducing their ability to resist the message while they are engaging with the story (Green & Brock, 2000; Moyer-Gusé, 2008; Slater & Rouner, 2002).

However, the finding that narrative audiences abandon their cognitive and emotional defenses against underlying messages in order to follow a story raises the question of whether story involvement also inhibits audiences' ability to generate positive sentiments about the persuasive subtext. Emerging research suggests that the generation of positive sentiments toward a story's underlying message may be just as important – if not more important – in narrative persuasion than the reduction of counterarguments (Niederdeppe, Kim, Lundell, Frazier, & Fazili, 2011). By the logic of transportation research and the Extended Elaboration Likelihood Model (Slater & Rouner, 2002), narrative engagement should be associated with the abandonment not only of counterarguing, but also of positive elaboration on underlying messages.

If story involvement does impede people's ability to process the persuasive subtext, than E-E programs might require narrative epilogues or supplemental conclusions to summarize important persuasive arguments in the subtext that otherwise would go unnoticed (Slater, 2002a). Epilogues have been used as a persuasion tool in past E-E series (e.g., Singhal & Rogers, 1989), but as of yet no studies have experimentally investigated whether the use of epilogues or related narrative devices has any persuasive advantage.

However, the success of E-E programs that do not have supplemental conclusions suggest that at least some audience members can generate positive evaluations of the subtext and adopt subtext-consistent attitudes and behaviors even without a concluding summary. Research on narrative transportation and Slater and Rouner's (2002) Extended Elaboration Likelihood Model (E-ELM) has garnered an impressive amount of support for the reduced counterarguing explanation for narrative persuasion. But the model is premised on the assumption that people consume stories for hedonic reasons (e.g., seeking enjoyment and pleasure), overlooking other

preferences and motivations for entertainment consumption, such as eudaimonic reasons (e.g., seeking poignant and meaningful experiences) (Oliver & Bartsch, 2010). Consequently, the E-ELM adopts a fairly passive conceptualization of audience, that doesn't account for narrative consumers' ability and motivation to critically engage with the embedded subtext while becoming involved with the narrative. Most people can appreciate a good story, but for some, what makes a good story is sometimes the message that can be taken away from it. For instance, audiences may have been riveted by the drama that unfolded in the 2005 Best Picture, *Crash*, but for many, what made this film so compelling was how the lessons about race relations and cross-cultural misunderstandings were woven into the story. Likewise, some audiences of the 2011 flu pandemic film, *Contagion*, may have felt compelled to actively contemplate the real-world implications of the story and ways to prevent infectious diseases as they were engaging with the drama unfolding in the film.

This study sets out to demonstrate that current models of narrative persuasion do not fully account for audience members' ability to actively engage with stories on both a subtextual and narrative level when they are motivated to do so. It contends that people simultaneously engage with the narrative and its underlying message, depending on whether they have eudaimonic motivation, the tendency to seek out meaning in entertainment media. Thus, the inclusion of supplemental conclusions that summarize the persuasive subtext after narrative exposure may only be necessary for individuals with less eudaimonic entertainment use motivation who, consistent with the E-ELM (Slater & Rouner, 2002), should be less likely to process the subtext during narrative exposure.

This study aims to make significant contributions to both theory and practice of entertainment-education. First, it will demonstrate that the dominant models of narrative

persuasion have boundary conditions—in this case, people’s motivation for consuming stories and other entertainment fare. Understanding how entertainment use motivations differentially affect narrative persuasion will permit entertainment-education designers to better tailor their messages and their marketing according to whether audiences are more or less motivated to follow a persuasive subtext. Second, this research will investigate the persuasive effect of a supplemental conclusion, which may be a useful subtext summary tool for entertainment education practitioners to use when designing messages for audiences that are less motivated to process the subtext during narrative exposure.

In summary, the overarching goal of this study is to reexamine the implicit contention of narrative persuasion models that engagement with the narrative is incompatible with persuasive subtext processing. To this end, the project has three overlapping objectives: 1) to examine the role of a supplemental conclusion in narrative persuasion, 2) to demonstrate that narrative subtext processing, intended elaboration in particular, and transportation are not incompatible processes, and 3) to investigate whether differences in entertainment use motivations explain why some people are more likely to process narrative subtexts, and why supplemental conclusions may be more persuasive for some compared to others.

2. LITERATURE REVIEW

The primary objective of this literature review is to build a case for the possibility that narrative persuasion can occur when audiences are engaged with *both* the story and the story's subtext, and to explain how the persuasiveness of a supplemental conclusion scene can be affected by this type of processing as well as individual differences in entertainment use motivations. This review begins by reviewing both non-narrative and narrative persuasion models, starting with the elaboration likelihood model (ELM; Petty & Cacioppo, 1981) of persuasion, and leading into a discussion of the extended-elaboration likelihood model (E-ELM; Slater & Rouner, 2002) and narrative transportation effects, which have been used specifically to explain narrative persuasion processes. This section concludes with a discussion of research findings that are inconsistent with the E-ELM, and which hint that subtext processing can be a critical component of narrative persuasion processes, even during narrative transportation.

If some people engage in subtext-level processing (e.g., intended elaboration) during transportation but others do not, this means that high transportation might cause some people to miss the persuasive message altogether. Building upon Slater's (2002a) suggestion, supplemental conclusions are put forward as a potential remedy to this problem. This review argues that supplemental conclusions may be an important tool to persuade people who are so engaged with the narrative that they are unmotivated or unable to contemplate the persuasive subtext. However, individuals who process the subtext as they engage with the narrative may not need to see a supplemental conclusion to take away the persuasive message.

Continuing the discussion of the relationship between transportation and intended elaboration, and problematizing the E-ELM's implicit contention that narrative engagement and subtextual message focus are always competing for attention in the persuasion process, the third

major section of the literature review discusses research on the effects of attention distraction on persuasion. This literature shows that not all distractions have the same effects on persuasion. While external distractions that are unrelated to the message are a detriment to persuasion, some distractions, which are related to the persuasive message (e.g., conversation about the message), or bear some relevance to the message, have the potential to work with the message to positively impact persuasion (Buller, 1986). Accordingly, this section concludes by advocating a conceptualization of transportation and subtext processing that recognizes the *combined* ability of these processes to enhance, rather than distort, people's appreciation for a message.

Finally, if transportation and narrative persuasion can occur even when audiences elaborate upon on subtextual messages, it will be important to identify the factors that determine when the process happens. For this reason, the last section discusses how entertainment use motivations may influence the effect that subtextual elaboration has on narrative persuasion. The E-ELM is premised on the assumption that people's motivation for consuming entertainment narratives is responsible for the narrative persuasion processes outlined by the model (Slater & Rouner, 2002). Specifically, people who have purely hedonic motivations may process entertainment in ways that help them maximize experiences of pleasure or escape, perhaps by becoming absorbed into the narrative and not putting much effort into focusing on the subtext. By this logic it stands to reason that different types of entertainment use motivations can make individuals more or less likely to engage in the psychological processes that lead to persuasion. Eudaimonic motivation in particular may increase audience members' willingness to engage with the subtext, perhaps making them less impacted by a subtextual summary in supplemental conclusions.

This section concludes with a summary of the proposed arguments and statements of hypotheses and research questions that will be investigated in the following sections.

2.1 Non-narrative and Narrative Persuasion Models

Elaboration likelihood model. The ELM (Petty & Cacioppo, 1981) explains how different factors can impact persuasion by influencing the way individuals process messages. The ELM proposes that individuals can use one of two message processing strategies, or elaboration routes to persuasion: the central route or the peripheral route. When message recipients use the central route, they are more influenced by the rational merits of the message (e.g., whether the argument is well-reasoned, well-supported, etc.). Thus, recipients apply more thought, or cognitive elaboration to critically scrutinize the quality of the message's arguments, and relate them to relevant information that is stored in memory.

If individuals are unmotivated or unable to engage in message elaboration through the central route, they will employ the peripheral route. When messages are processed through the peripheral route, recipients are more influenced by characteristics that are tangential to the message itself, such as the attractiveness or credibility of its source, accompanying music or images, how enjoyable the message is, emotional appeals, or number of arguments presented. Peripheral processing leads to superficial evaluations about the message's argument (Karson & Korgaonkar, 2001).

Persuasion can occur through either the central or peripheral route under different circumstances (Petty & Cacioppo, 1981). Persuasion can occur through the central route if individuals carefully consider the message and perceive the strength of its argument to be strong. People also can be persuaded through the peripheral route if they rely on cognitive shortcuts to assess the message and make their decisions (e.g., automatically accepting a message because it is provided by a source perceived as credible). Because peripheral judgments require less

cognitive elaboration, they can be made quickly, but central processing results in longer-lasting persuasive effects (Petty & Cacioppo, 1986).

The ELM predicts a tradeoff between how much individuals elaborate on a message and how persuasive peripheral cues are (Petty & Cacioppo, 1986). As motivation and/or ability to process arguments is decreased, peripheral cues become relatively more important determinants of persuasion. Conversely, as argument scrutiny is increased, peripheral message characteristics are not expected to exert a strong influence on belief or attitude development (Petty, Cacioppo, & Goldman, 1981; Petty, Cacioppo & Shumann, 1983).

Besides predicting the extent of elaborative processing, the ELM also predicts the type of message elaboration receivers will engage in. Specifically the model distinguishes between relatively objective and relatively biased processing (Petty & Cacioppo, 1981, 1986). Relatively objective processing is associated with an open mind. When people are elaborating objectively, they are attempting to be impartial when they assess message arguments. According to Petty and Cacioppo, objective processing should help people recognize both argument strengths and weaknesses and alter their assessment of them accordingly. When individuals engage in relatively biased processing, information they have or their perspectives color how they evaluate the message, which increases the likelihood that one side of an argument will be supported or rejected. For instance, when confronted with a message that has an argument they know they do not agree with, people may generate counterarguments against the message, criticizing the source's credibility, or ignoring the argument all together.

As already noted, the ELM makes several predictions about when individuals are more or less likely to rely on central or peripheral routes, and two key determinants are message receiver ability and motivation. The extent to which message receivers employ the central route over the

peripheral route depends on whether they have the ability to engage in a high level of elaboration (i.e., they have the time, cognitive capacity, etc.; Igartua, Cheng, & Lopes, 2003), and whether they have motivation to carefully scrutinize the message (Petty & Cacioppo, 1986).

Extended elaboration likelihood model. Countless studies of the ELM have shown it to be an accurate model of how people process and are persuaded by overtly persuasive messages such as advertisements (e.g., Petty & Priester, 1994). However, some scholars have noted that while the model provides a good explanation of how issue-driven, obviously persuasive, or rhetorical messages are processed, it does not adequately to explain entertainment education effects, or responses to persuasive messages that are embedded in dramatic narratives (Moyer-Gusé, 2008; Slater, 1997, 2002b; Slater & Rouner, 1996, 2002). The E-ELM (Slater & Rouner, 2002) was one of the first formal statements of entertaining narratives' unique capabilities to persuade by reducing critical scrutiny of stories' persuasive subtexts.

Unlike the ELM, the E-ELM proposes that entertainment messages are processed through a narrative route of persuasion, rather than through central or peripheral routes. Broadly speaking, the E-ELM proposes that narrative absorption and identification with characters mediate messages' persuasive impact. The E-ELM recognizes that character identification and narrative absorption are related, and play similar roles in narrative persuasion processing, but to maintain parsimony during an examination of the models, the remainder of this literature review focuses specifically on the effects of absorption on narrative persuasion. According to Slater and Rouner (2002), the narrative absorption path constitutes a route to persuasion that is unique to narratives. They argue that without narrative absorption, a story is not likely to have much, if any, persuasive influence, because people's cognitive resources will be free to generate resistance against the persuasive message. Hence, central and peripheral routes are not included

in the model, and the E-ELM does not draw a distinction between these processes.

The E-ELM's core claim is that narrative absorption opens the door for persuasion by subverting biased processing that would occur if the arguments were presented without entertaining, narrative packaging. Specifically, narrative focus is thought to distract attention away from the message's arguments, thereby deflecting resistance. The E-ELM proposes an inverse relationship between narrative absorption and critical consideration of the argument; hence, as audience members become more engaged with the narrative component of a message, they should become less engaged with the argument component and vice versa. Yet, although the E-ELM proposes that becoming fully engaged with the narrative component requires audience members to disengage from critically considering the argument, Slater and Rouner (2002) point out that people can still be aware that the message contains a persuasive element: "[engaging with a narrative] does not mean that recipients must be unaware of persuasive intent, but simply that the drama must be compelling enough to cause such awareness to fade into the background while reading or viewing the story" (p. 176). According to Dal Cin, Zanna, and Fong (2004), stories have the ability to camouflage extreme arguments so that receivers do not recognize how extreme the arguments really are. According to the E-ELM, the loss of argument awareness during narrative engagement is a prerequisite for persuasion. Becoming absorbed in the narrative makes people more suggestible because it limits their ability to engage in cognitive and emotional activities that facilitate resistance to issues, such as counterarguing against the perspectives and arguments that are embedded in the message (Slater & Rouner, 2002).

Transportation. Much support for the E-ELM comes from research on transportation, which is a type of narrative absorption. As defined by Green and Block (2000), transportation is "a convergent process, where all mental systems and capacities become focused on events

occurring in the narrative” (p. 701). Perhaps as a result of transportation persuasion effects regularly being compared to ELM persuasion effects, transportation is often described in cognitive terms, but at its core, it is a type of immersion that engages both cognition and emotion. Green and Brock (2000) conceptualize transportation as a fusion of attention, imagery, and feelings that are concentrated on a story, and the scale they developed to operationalize the transportation experience consists of three dimensions that tap into these components.

Consistent with the E-ELM, evidence suggests that transportation affects persuasion by helping to conceal message arguments and occupying audience concentration, thereby reducing their generation of counterarguments to the persuasive subtext in the narrative (Green & Brock, 2000). Counterarguing occurs when individuals generate arguments to oppose messages that run counter to their preexisting opinions in order to defend their current beliefs or attitudes by lessening the impact of the message argument (Brock, 1967; Petty & Cacioppo, 1981). Counterarguing is viewed by the E-ELM and transportation research as a process that is fundamentally incompatible with narrative engagement, because narratives engage the faculties that might ordinarily be involved with counterargumentation.

Theorizing on narrative persuasion suggests that transportation reduces people’s ability to counterargue by occupying their attentional focus. Escalas (2004) suggests that transportation operates in a way similar to mental simulation or imagination. But unlike imagination, transported individuals must constantly update their mental images to keep up with the information being provided by the narrative. Busselle and Bilandzic (2009) propose that this process of keeping pace with narrative information sustains the transportive experience. In order to follow stories and understand their meaning, audiences must build mental models by incorporating new story information into preexisting mental schemas as they process storylines.

Transportation, the authors argue, occurs as a result of being fully engaged in model construction. In this way, the experience of narrative transportation resembles flow, or the experience that occurs when there is an equilibrium between media message content and audience members' ability to interpret that content (Csikszentmihalyi, 1993). As with flow, individuals who dedicate complete concentration to the narrative may lose sense of time or awareness of activities occurring outside the narrative. To the individuals engaged in the narrative, transportation feels effortless, but unlike peripheral processing strategies, it is nonetheless a demanding mental processing state (Green, Kass, Carrey, Herzig, Feeney & Sabini, 2008). Someone engaged with a narrative must exert a considerable amount of cognitive resources to make sense of the narrative (Marsh & Fazio, 2007; Zwaan, Langston, & Graesser, 1995). Consequently, user processing goals such as critically processing arguments embedded in narrative content are abandoned as individuals are motivated to process the narrative and focus almost exclusively on story elements (Green et al., 2004; Slater & Rouner, 2002).

Tests of the effects of narrative transportation on persuasion have usually yielded results consistent with the E-ELM. Some studies found that transportation enhances the persuasive effects of text-based stories (e.g., Appel & Richter, 2010; Green, 2004; Green & Brock, 2000). For example, in their study of transportation and the persuasiveness of fictional and nonfictional dramatic stories, Green and Brock (2000) found that readers who reported being highly transported into the narrative responded less skeptically to the content and reported more story-consistent beliefs. Green (2004) also found that highly transported readers of a compelling written narrative adopted more story-consistent beliefs than readers with lower levels of transportation. Studies using similar methodologies and narratives have replicated these results (Appel & Richter, 2010). Transportation also can mediate the persuasive effects of narrative

advertisements and PSAs--both text-based ads and television commercials (Dunlop, Wakefield, & Kashima, 2010; Escalas, 2004, 2007; Wang & Calder, 2006). Dunlop et al. (2010) found that transportation into a message designed to persuade individuals to adopt positive health behaviors (i.e., quit smoking or engage in skin protection) led to greater intentions to engage in the recommended behaviors. Transportation also can enhance persuasion even when narratives are not designed to be persuasive. Murphy, Frank, Moran and Patnoe-Woodley (2011) administered a questionnaire to regular viewers of the drama *Desperate Housewives*, before and after a cancer treatment storyline aired, and found that transportation was the best predictor of viewers' changes in cancer-relevant knowledge, attitudes, and behavior.

Findings inconsistent with the extended elaboration likelihood model. Although several studies of the E-ELM have provided support for its basic tenants, not all have confirmed the model's account of how transportation leads to persuasion. For example, transportation has not always had the predicted effects on persuasion. Slater, Rouner, and Long (2006) found that transportation and counterarguing did not mediate the persuasive effects of exposure to two different television crime dramas. The authors suggest that a threshold effect could explain their findings; perhaps the participants were all so highly transported, that variability in their transportation was not strong enough to show any differences in persuasive outcomes. Barriga, Shapiro, and Fernandez (2010) also failed to find transportation effects. They exposed audiences to movies with incorrect science information and found that whether or not individuals accepted the information depended on whether they thought that science was an integral or peripheral part of the plot. The extent to which audiences were transported had no effect on them accepting the information.

Even when transportation is associated with persuasion, there is some evidence that its

effects may not always be mediated by reduced counterarguing. Dunlop et al. (2010) did find that transportation into a narrative on skin health had a positive influence on audience intentions to engage in skin protection behaviors, but they did not find any evidence that the effect was mediated by negative cognitive responses to the message. A recent study by Moyer-Gusé and Nabi (2010) tested the E-ELM, but also was unable to confirm the expected inverse relationship between transportation and counterarguing in response to an episode of the teen drama *The OC*, dealing with the topic of teen pregnancy. Surprisingly, in their path analysis, narrative transportation was *positively* related to counterarguing. Slater and Rouner (2002) contend that transportation and counterarguing are incompatible processes, and accordingly, Moyer-Gusé and Nabi speculated that their unexpected finding could be the product of imprecise measurement. Because they used a close-ended scale (Nabi, Moyer-Gusé, & Byrne, 2007) to measure counterarguing (rather than analyzing participants' self-generated thoughts about the program), they also acknowledged that they were unable to decipher what individuals were counterarguing against. For example, questions asked participants to rate the extent to which "I found myself thinking of ways I disagreed with what was being presented" and "I sometimes felt like I wanted to 'argue back' to what was going on onscreen." Unfortunately, it is unclear whether audience members were counterarguing against the underlying message of the episode (i.e., the importance of safe sex practices) or narrative characteristics, such as character decisions with which they disagreed. The fact that the show had several different characters with multiple viewpoints further complicates the interpretation of these findings, because the scale did not provide an opportunity to decipher whom or what respondents argued against.

2.2 Intended Elaboration

The aforementioned findings have important implications for modeling narrative persuasion. Some studies have found that narratives were persuasive but were unable to confirm that these effects resulted from increased transportation or reduced counterarguing (Barriga et al., 2010; Moyer-Gusé & Nabi, 2010; Slater et al., 2006), suggesting that transportation and reduced counterarguing is not the only processing mechanism of narrative persuasion. Moyer-Gusé and Nabi (2010) suggested as much when they speculated that their discovery that transportation positively predicted counterarguing could be because the counterarguing scale they used actually tapped into a different type of processing. Furthermore, research on cognitive-response perspectives on nonnarrative messages has demonstrated that support arguments, or arguments in favor of a message's recommended action, can be an important mediator in the persuasion process, provided that counterarguments are low (Wright, 1974). Accordingly, a growing number of scholars have underscored the need to understand the effects that responses to narrative messages, beyond counterarguing, have on persuasion (Kreuter et al., 2007; Moyer-Gusé, Chung, & Jain, 2011; Niederdeppe, Kim et al., 2011). Narratives may be an efficient means of reducing people's resistance to counterattitudinal messages, but few studies have sought to understand the cognitive and emotional responses that actually lead to attitude change when people are less resistant. In a notable exception, Niederdeppe, Kim et al. (2011) found evidence that intended elaboration, or positive contemplation about the message that a story was designed to convey, can be more instrumental in the persuasion process than reduced counterarguing. They compared thoughts generated by participants in response to four different narratives about the causes and solutions for obesity that varied in their presentation of argument sides (one-sided vs. two-sided) and attributions for obesity causes (focus on individual causes vs.

community causes) and found that respondents generated more intended elaborations than counterarguments while processing the messages, and that the number of intended elaborations on the messages mediated the effects of their message manipulations on narrative persuasion. These findings highlight the importance of studying processes besides counterarguing, such as intended elaboration, as mechanisms of narrative persuasion.

As of yet, processing variables beyond counterarguing have received little attention. In their statement of the E-ELM for example, Slater and Rouner (2002) did implicitly argue that a narrative's persuasiveness is contingent on the net valence or polarity of responses to its persuasive subtext, and they included this in their model, as illustrated in Figure 1. As Niederdeppe, Kim et al. (2011) pointed out, this argument seems to acknowledge the central role that positive as well as negative sentiments toward the subtext play in persuasion. However, as of yet, no efforts have been made to examine how narrative experiences such as transportation affect both of these outcomes. This may be in part because, as the model is currently stated, intended subtext elaboration is not obviously compatible with the E-ELM.

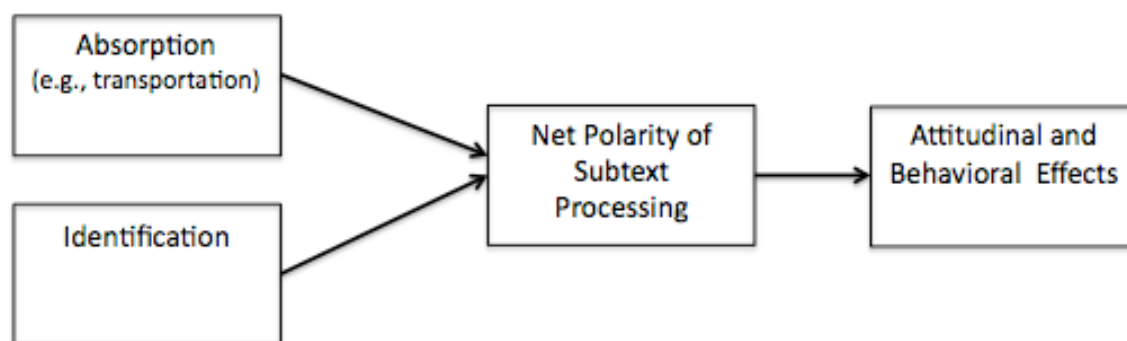


Figure 1. Extended-Elaboration Likelihood Model of narrative persuasion (Slater & Rouner, 2002)

Note. Net polarity of responses to the subtext is determined by amount of intended elaboration relative to the amount of counterargumentation. Greater amounts of counterargumentation should lead to attitude/behavioral effects that are inconsistent with the subtext, while greater amounts of intended elaboration should lead to attitude/behavioral effects that are subtext-consistent.

As previously discussed, the E-ELM, developed from transportation theory, is largely based upon the premise that when people are narratively absorbed, they become disengaged from the subtext (and therefore less resistant to the subtextual message). This disengagement is thought to occur because a great deal of cognitive resources are dedicated to the narrative and therefore rendered unavailable for use in critical elaboration processes (Moyer-Gusé, 2008; Slater & Rouner, 2002), including subtext counterarguing. A narratively engaged media consumer must exert a considerable amount of cognitive resources to develop mental schemas and mental models and apply them in order to make sense of the narrative (Marsh & Fazio, 2007; Zwaan et al., 1995). But in the meantime, user processing goals such as the critical evaluation of narrative subtext must be reduced. This account has been used to explain why narrative engagement inhibits counterarguing, but this line of reasoning also suggests that transportation can disrupt intended elaboration too. If narrative consumers focus their mental resources on engaging with the narrative, their ability to generate any sentiments about the persuasive subtext, positive or negative, should be compromised.

This possibility has an important implication for understanding the role of transportation in narrative persuasion. Past research has found strong ties between transportation and narrative persuasion mediated by reduced counterarguing, but if transportation also reduces intended elaboration, transportation may not create the optimal conditions for narrative persuasion. Slater and Rouner (2002, p. 176) contend that a story's persuasive messages "fade into the background" during narrative transportation, suggesting that the subtext might not be reflected upon until after the narrative experience (p. 176). Hence, while moderate levels of transportation could reduce subtext focus and still permit positive, intended elaboration, at maximum levels it could block intended elaborations that lead to people adopting subtext-consistent attitudes. This possibility

underscores the need to examine potential narrative persuasion strategies for individuals who are at greater risk of missing the subtextual message during narrative transportation. The following section discusses supplemental conclusions as one such strategy.

2.3 Supplemental conclusions

The prior section suggested that the generation of intended elaborations, in favor of the attitudes or behaviors advocated through a story's subtext, is an important part of the persuasion process. But if transportation inhibits counterarguing, then it stands to reason that it could disrupt intended elaboration as well. This raises the question of whether entertainment-education programs can facilitate narrative persuasion even in the absence of subtext processing during people's exposure to the story. That is, if audience members are so absorbed by the narrative that they cannot focus on the persuasive subtext, strategies to redirect their attention to the core message need to be identified. The use of epilogues, or summaries of a story's underlying subtextual message may be one way that designers of entertainment-education programming have addressed this issue in the past. Entertainment-education programs commonly end with epilogues that consist of rhetorical questions designed to make audience members think about how they would respond if put in situations similar to those depicted in the story, or statements that summarize the benefits of the recommended behaviors or attitudes. Some television shows and films conclude with textual messages that reinforce the main ideas of the programs, whereas others use actors to review the lessons in a public service announcement format. For instance, the Indian television series *Hum Log*, designed to educate viewers about family planning and improve women's status in Indian culture, concluded each episode with a famous Indian film star reviewing the lessons from the story (Singhal & Rogers, 1989).

Lines of research in both narrative comprehension and persuasion give credence to the suggestion that explicit messages about a story's subtext should enhance people's understanding of the subtext and narrative persuasion. For instance, research on developmental differences in narrative comprehension has found that due to constraints on cognitive capacity, both children and older adults can have difficulty drawing inferences from narrative events to gauge details like character emotions and motivations. But these difficulties can be overcome if audience members are repeatedly exposed to the message or given explicit message commentary while viewing (e.g., Collins, Sobol, & Westby, 1981; Mares, 2006, 2007). Evidence suggests that explicit commentary about a story's subtext can also enhance persuasion. Hovland and Mandell (1952) studied the persuasive effects of an expository message on solutions to economic problems and found that recommendations that offered summaries of the message's conclusion resulted in more message-consistent attitude change than when no explicit conclusion was stated. Fine (1957) later replicated these results. Slater and Rouner (2002) suggested that epilogues work to enhance persuasion by prompting audience members to rehearse important messages gleaned from the story. Further, Slater (2002a) argued that concluding summaries are critical for the success of entertainment-education programming, because they bring the persuasive message to the foreground of people's attention after their cognitive resources have been occupied by the narrative. "Apparently, without such epilogues it is too easy for viewers or listeners to focus on character and not engage with the message's persuasive subtext" (p. 162). Notably, this statement is premised on the aforementioned conclusion that attention to the narrative elements occurs at the expense of the subtext, meaning that audience members are at risk of not comprehending (and therefore not being persuaded by) the persuasive subtext, unless the story concludes with some sort of summary of its take-home messages (Kreuter et al., 2007).

Understanding how epilogues or other concluding summary devices affect narrative persuasion has important implications for entertainment-education message development. Although past research suggests that audiences appreciate educational or persuasive epilogues at the end of entertainment-education stories (Singhal & Rogers, 1989), as of yet there is no experimental evidence that programs that include subtext summary information in their conclusions are more persuasive than those that do not. For this reason, it is worth investigating whether or not there are persuasive advantages to concluding a story with summary information about the narrative subtext.

Traditional entertainment-education epilogues, such as those used in *Hum Log*, in which actors who are out of character speak directly to the audience about the important lessons that should be gleaned from the storyline, are not typical for television programming for adults in the U.S. Therefore, such epilogues may be perceived as condescending or preachy by audiences who are not accustomed to these types of direct appeals. For this reason, less conspicuous concluding summary scenes that are embedded into the narrative may be more appropriate for these audiences. The stimulus used in the current study consists of a concluding scene in which actors who are still in character discuss some of the major lessons from the show and model the show's recommended behavior. In this way, the scene supplements the persuasive subtext embedded in the storyline, without directly telling the audience which attitudes and behaviors to adopt. Hence, this study does not test the effect of a traditional epilogue, but instead focuses on what will be termed a "supplemental conclusion" for the duration of this paper.

In summary, this section has argued that epilogues that provide summaries of a story's underlying message are important tools to improve narrative comprehension and persuasion, in part because they can shift audience attention from the narrative to the subtext. However,

supplemental conclusions are not a necessary condition for narrative persuasion to occur, as evidenced by several studies demonstrating that narratives without epilogues or supplemental conclusions can be persuasive, particularly when people are transported (for a review, see Moyer-Gusé, 2008). Given the importance of intended elaboration in the persuasion process (provided counterarguing is low) (Niederdeppe, Kim, et al. 2011; Wright, 1974), it seems likely that subtext elaboration did occur in these transportation studies and result in persuasion.

Accordingly, this paper proposes that although focus on the narrative and focus on the subtext both engage narrative consumers' mental resources, people with sufficient motivation or ability may be able to engage in both types of processes at the same time. Taking this point one step further, simultaneous transportation and subtext elaboration could even be desirable for some. If so, the persuasive impact of people's motivation to make subtextual inferences about the story could be moderated by exposure to a supplemental conclusion. Specifically, supplemental conclusions should be an important aid for individuals who are less prone to engaging in simultaneous narrative and subtextual processing, but conclusions may have a less substantial effect on individuals who have already been contemplating the persuasive subtextual messages (and therefore, are already leaning toward accepting or resisting the recommended behavior).

Before discussing the conditions in which supplemental conclusions might moderate the extent of subtext processing, it is first necessary to establish that persuasion via subtextual processing and narrative transportation is possible in some cases. Research on the effects of distractions from non-narrative messages on persuasion provides support for this claim, by demonstrating that people can be influenced by a subtext even when their focus is split between the message itself (e.g., a persuasive subtext) and message-relevant details (e.g., a storyline) (Buller, 1986). The current paper draws from these findings to understand narrative persuasion,

arguing that transportation functions as a type of subtext-relevant distraction. Rather than distracting people from the subtext, intense immersion in the narrative via transportation could enhance their appreciation and interpretations of the subtext, making it more meaningful and memorable. To provide some background for this possibility, the next section provides a brief review of research that has found that distractions that are relevant to persuasive messages can enhance their persuasive outcomes.

2.4 Transportation as Communication-Relevant Distraction

At its core, research on transportation treats narrative engagement as a form of distraction that diverts viewer attention away from a story's persuasive subtext. Thus, past research on distraction and persuasion can help clarify how narrative engagement (i.e., transportation), affects narrative processing. There are a number of distractions that can disrupt the processing of persuasive messages by diverting receivers' attention away from the message. Interruptions from competing messages or people's internal or external context can distract individuals from giving a message their full attention. Consistent with research on transportation (e.g., Green & Brock, 2000), half a century of research suggests that message distractions do not necessarily obstruct non-narrative message processing. In fact, Allyn and Festinger (1961) first showed that persuasion can occur even when individuals' attention is distracted away from an argument. But, the line of research that followed their study uncovered mixed findings and competing explanations of how distraction affects attitude change (for a review see Buller, 1986). Some studies showed that distraction reduced attitude change. According to the message-comprehension explanation (McGuire, 1969), this occurred because distractions disrupt message comprehension. In contrast, studies finding support for Allyn and Festinger's initial finding that distraction enhances persuasion have mostly relied on the counterargument disruption

explanation (Festinger & Maccoby, 1964), which argues that message distraction interferes with individuals' ability to counterargue, thereby making them less resistant to the arguments in the message. Notably, this explanation was eventually adopted by the E-ELM to explain how transportation leads to narrative persuasion by distracting people from generating arguments against the subtext (Slater & Rouner, 2002). But Buller's (1986) meta-analysis of 38 studies examining the effects of distraction on attitude change showed little support for the counterargument disruption hypothesis. On the contrary, lending support to the message comprehension hypothesis, the meta-analysis showed that overall, distraction had a negative effect on attitude change, and distractions from message comprehension were also associated with reduced persuasion.

However, Buller (1986) argued that a distinction between different types of distractions is required to resolve the conflicting findings in past research and to understand how distraction affects persuasive message processing. In his meta-analysis, he distinguished between two types of distractors: "communication-irrelevant" distractors, or distractions that shift receiver focus away from the message (e.g., hearing noises or engaging in tasks unrelated to the message), and "communication-relevant" distractors, or distractions that divert receiver attention to message aspects that are related to but separate from the primary argument (e.g., focusing on how credible the message source is, instead of the argument being presented). The meta-analysis revealed that the two distraction types have different effects on persuasion. Communication-irrelevant distractors inhibited persuasion because they disrupted message comprehension, whereas attention to communication-relevant distractors helped to inform individuals' judgments about the message's argument. In fact, the analysis revealed that evaluations of these communication-relevant distractors moderated the persuasive impact of the arguments. Specifically, when

people's attention was diverted to focus on positive communication-relevant distractors (e.g., characteristics of credible message sources instead of the argument itself), the argument was more persuasive. When people were distracted by negative communication-relevant distractors (e.g., message sources with low credibility) the message argument did not have persuasive effects.

Based on the meta-analysis results, Buller (1986) concluded that communication-irrelevant and communication-relevant distractions have different effects on message processing. Communication-irrelevant sources distracted message receivers in a traditional sense; they interrupted message processing by diverting attention away from all aspects of the message. In contrast, Buller and Hall (1998) argued that communication-relevant distractors actually encouraged message-related focus and “provided supplemental meaning that was integrated into receivers' message processing” (p. 160). In studies that manipulated individuals' level of distraction, people who had their attention diverted by communication-relevant distractions may have been focused less on the message's argument, but Buller (1986) suggested that their attention on the distraction was a related diversion that played a role in how they decoded the message argument.

None of the studies included in Buller's (1986) meta-analysis examined narratives or the effect of narrative distraction on persuasion. However, it stands to reason that forms of narrative engagement, such as transportation, could have effects on persuasion that are similar to other types of communication-relevant distractors. Reduced counterarguing could facilitate these effects, but very likely transportation can also act as a subtext-relevant distraction that enhances—rather than inhibits—people's processing of underlying messages. That is, in some cases, distraction away from the story's subtext via transportation into the narrative world could

supplement receivers' understanding of the argument (presuming of course, that they comprehend the message). To date, models of narrative persuasion have implicitly argued that transportation reduces awareness of embedded arguments during story exposure (e.g., Slater & Rouner, 2002), but in the following section I propose that the narrative processing associated with transportation can be compatible with people's involvement with the subtext.

2.5 Persuasive Influence of Intended Elaboration on the Subtext

As previously discussed, the transportation experience can be disrupted by environmental interruptions (e.g., noises, or irrelevant conversations with others) or anything that causes people to divert attention away from the story (e.g., commercials or unrelated thoughts) (Wang & Calder, 2006). However, research on distraction and persuasion suggests that communication- or message-relevant distractions (Buller, 1986) are a regular occurrence during the narrative experience that need not suppress subtext processing. While transported, people may engage in evaluative responses (Polichak & Gerrig, 2002) or subtextual elaboration, contemplating real-world applications of the story, relating it to other stories, or perhaps relating a story's message to themselves. For example, a viewer of a film in which a character becomes an organ donor may begin relating the behavior to their own life and thinking about their own fears of registering as donor. Another viewer may respond by contemplating the need for more organ donors and reflecting on how easy the registration process is. They may even share their thoughts with a friend during the film. Narrative transportation need not distract message recipients from dedicating attention to the subtext, because these positive or negative thoughts (or conversations) are still tied to the story. This argument may seem intuitive, but research on transportation and the E-ELM seems to suggest that focus away from the subtext is the key to narrative persuasion. As previously discussed, Slater and Rouner (2002) argued that people who

are narratively engaged let their awareness of a persuasive subtext “fade into the background.” But subtextual awareness and elaboration on a narrative’s argument or subtext may not be incompatible with subtext processing. Just as message-relevant distractions can promote persuasion by motivating focus on non-narrative messages and enhancing the meaning of the message (Buller & Hall, 1998), narrative-relevant distractions (i.e., transportation) has the potential to enhance persuasion through the same process. Indeed, although it has been suggested that individuals evaluate the argument component of a story after being exposed to the narrative (Polichak & Gerrig, 2002), intuitively it makes sense that elaboration on the subtext should also occur *during* narrative exposure or else message recipients could be at risk of missing the underlying message entirely. Anecdotally, contemplation of narrative subtext is also a sign of interest in a story. Those who respond emotionally to narratives’ themes or contemplate their deeper meaning as they are watching, reading, or listening may be more drawn into the action, and more motivated to follow the story. Thinking about a story on a deeper level may increase involvement, intensify emotions and could even help cultivate or reinforce narrative engagement. Hence, narrative transportation combined with intended elaboration of the subtext could actually enhance persuasion by making subtextual messages more understandable, memorable, and/or personally salient. In sum, rather than conceptualizing the subtext as a narrative distracter, it may be viewed as a potentially complementary message component that can be processed along with the narrative to enhance the meaning of a message.

2.6 Entertainment Use Motivation, Transportation, and Narrative Persuasion

Thus far, this paper has argued that supplemental conclusions can be crucial for narrative persuasion when audience members become transported into the narrative and disengaged from the story’s subtext. But evidence suggests that transportation does not necessarily distract

audience attention away from the underlying message, and therefore it stands to reason that persuasion can occur without the aid of a subtextual summary, or supplemental conclusion. The conditions in which these two different paths to persuasion might occur still need to be uncovered. To begin examining the traits that influence narrative persuasion processes (and possibly the need for supplemental conclusions), this section proposes that entertainment use motivations affect how aware of narrative subtexts audience members become when they are transported into a story. Specifically, contemplative entertainment motivations should predict greater intended elaboration, which will lead to persuasion during—rather than after—narrative engagement. For this reason, a supplemental conclusion is expected to moderate the effect of entertainment use motivation on persuasion, such that for individuals with less motivation to evaluate the subtext during narrative exposure, and thus more likely to benefit from a supplement scene, the supplemental conclusion will be more persuasive.

Slater (1997, 2002b) argued that audiences have different goals that they want to achieve with different message contexts and genres, and these goals affect how they process media messages and how persuasion effects occur. In the case of documentaries and instructional manuals, for instance, Slater argued that media consumers often have a goal of acquiring information or skills. As such, they are motivated to adopt a message processing strategy (e.g., elaborative processing) that will allow them to learn information, understand it, and store it to memory. As another example, genres such as news or advertising are often associated with surveillance goals, and thus, audiences are expected to engage in processing methods that enhance their ability to screen messages for interesting or relevant information.

Slater and Rouner's (2002) statement of the E-ELM is grounded in the assumption that people have unique motivations for consuming narrative entertainment media as well, and these

motivations affect people's narrative processing strategies. Drawing from Zillmann and Bryant's work (1985), Slater (1997, 2002b) noted that audiences typically have hedonic goals when consuming narrative entertainment media, including diversion and vicarious excitement. As such, entertainment media consumers are expected to be less motivated to obtain knowledge, and more focused on maximizing their enjoyment. Audiences who are motivated to consume media for the sake of entertainment are expected to be persuaded through narrative engagement rather than contemplative subtext elaboration.

One limitation with this argument is that it accounts for only one type of entertainment use preference. Narrative persuasion models are premised on the notion that people have hedonic goals for consuming entertainment media. Hedonic perspectives on entertainment use posit that media users seek to maximize pleasurable experiences (e.g., enhancing positive moods and emotions, or passing time) and minimize negative experiences (e.g., reducing negative moods and emotions, or escaping from real world problems) (Herzog, 1944; Perse & Rubin, 1990; Rubin, 1983; Zillmann & Bryant, 1985). But entertainment research has begun to uncover motivations for entertainment consumption beyond hedonistic gratifications. As noted by Oliver and Bartsch (2010), many uses and gratifications of entertainment, such as obtaining information, social status, or opportunities for social interaction (Rubin, 1983) do not fall under the umbrella of hedonistic motivation. In an attempt to explain these motivations, Oliver and her colleagues have drawn from research on the psychology of happiness, which recognizes two different types of happiness: hedonic happiness and eudaimonia. Hedonic happiness is a state that results from maximizing pleasure and minimizing pain. In contrast, eudaimonia is an experience that is meaningful and fulfilling, though not necessarily pleasurable (Ryan & Deci, 2001; Waterman, 1993). Drawing from Aristotle's conceptualization, Ryff and Singer (1998)

associate eudaimonia with living well and seeking to further one's purpose in life. Extending this distinction to motivations for entertainment consumption, recent theorizing has proposed that there are eudaimonic reasons for media consumption that are inherently gratifying, but may not be considered fun or pleasurable in the traditional hedonic sense (Oliver, 2008; Oliver & Raney, 2011). Eudaimonic motivations for media consumption include anticipations of "greater insight, self reflection, or contemplations of poignancy or meaningfulness" (Oliver, 2008, p. 42). Gratifications of media consumption can also be eudaimonic. Oliver and Bartsch (2010) identified appreciation as an audience response that was distinct from other entertainment experiences like enjoyment and suspense. In their research, participants experiencing a state of appreciation reported being moved by a film, finding it thought provoking and meaningful, whereas participants in a state of enjoyment reported having a good time, and reviewed the movie as fun and entertaining.

Slater's (1997, 2002b) contention that people's media use goals differentially influence their media processing strategies lends itself to the possibility that different entertainment consumption motivations are associated with different narrative processing strategies. No studies have specifically examined how eudaimonic and hedonic motivations affect people's processing of entertainment media, but conceptually, it stands to reason that eudaimonia or appreciation is characterized by a desire for more cognitive elaboration than more hedonic experiences. According to Oliver and Bartsch (2010), appreciation can be defined by its unique and complex cognitive and affective responses. But notably, the authors described the experience of appreciation in cognitive terms. They defined appreciation "as an experiential state that is characterized by the perception of deeper meaning, the feeling of being moved, and the motivation to elaborate on thoughts and feelings inspired by the experience" (p.76). And

elsewhere they wrote: “whereas enjoyment (devoid of appreciation or meaning) may be associated with fleeting feelings of pleasure and excitement, deep appreciation of some entertainment offerings should result in greater levels of reflection, deeper levels of processing, and more extensive contemplation” (p. 59). As these definitions suggest, appreciation is a moving emotional response and also a very cerebral experience, characterized by a high degree of cognitive activity relative to hedonic entertainment responses.

Although a person’s motivations for entertainment consumption can vary in different circumstances, Oliver and Raney (2011) have also conceptualized eudaimonic and hedonic motivations as stable preferences. They demonstrated that these preferences are related, but distinct motivations. They also conducted multiple studies to develop a scale to measure trait hedonic and eudaimonic motivations, and demonstrated that respondents’ scores on the scale did not change over several weeks, nor were there any differences in scores between different age groups. More research is needed to establish how entertainment use motivations develop and change across the lifespan, but these studies provide preliminary evidence that they are relatively stable dispositions. Of course, not all—perhaps not even the majority—of people’s exposure to entertainment is sought out. That is, regardless of their motivational tendencies, people are regularly exposed to entertainment that they do not actively select. The conceptualization of eudaimonic and hedonic motivation as traits does suggest, however, that people have tendencies to seek out different gratifications from entertainment, regardless of whether their exposure is initially accompanied by expectations for those gratifications.

Although Oliver and Raney (2011) found that there was a slight negative correlation between eudaimonic and hedonic motivations ($r = -.16, p < .05$), they did not conceptualize them as components of a single concept, observing that people can have motivations that are

strongly or weakly hedonic *and* eudaimonic. Participants in their study tended to have strong eudaimonic and hedonic motivations, though hedonic motivations were slightly stronger. Based on this finding, the current study proposes that hedonic motivation acts as a default motivation for entertainment consumption, whereas the extent to which individuals are eudaimonically inclined to consume entertainment may be less common and more variable, with important implications for how they process entertainment media offerings. For this reason, the hypotheses for the current study focus exclusively on eudaimonic motivation.

What is unclear is whether dispositional motivations like eudaimonia can affect message processing strategies in the same way that Slater (1997) argued entertainment goals affect processing. If entertainment use preference can be a trait as well as a state, then dispositional motivations could affect the frequency or ease with which individuals engage in different types of processing strategies. Notably, Oliver and Raney (2011) found that eudaimonic preferences were associated with greater need for cognition, the tendency to engage in and appreciate effortful cognitive activity, which also can increase the likelihood that individuals elaborate on persuasive messages during non-narrative persuasion (for a review, see Cacioppo, Petty, Feinstein, & Jarvis, 1996). By extension it stands to reason that eudaimonic motivations are associated with more effortful processing during narrative persuasion, and that generating counterarguments and support arguments may come naturally to those individuals who are naturally more inclined to contemplate a narrative's underlying subtext. In contrast, detaching from the subtextual focus to enjoy the narrative may be more common for people who have lower eudaimonic dispositions. Hence, eudaimonic motivation should be associated with more subtext elaboration, whether it is intended elaboration, counterarguing, or even musings on the persuasive subtext with no particular valence. Lower eudaimonic motivation, on the other hand,

should be associated with relatively little persuasive subtext processing. This explains why supplemental conclusions may be necessary to affect persuasion among people who are not eudaimonically motivated, who stay relatively unaware of the persuasive subtext unless it is encapsulated in a concluding scene. People with stronger eudaimonic dispositions also may be swayed by a concluding supplemental conclusion, but not to the same extent because they should already have drawn their own conclusions during narrative exposure.

Although people with eudaimonic motivation would be expected to engage in subtext exposure, it is not clear how this subtext processing is related to transportation. Are people with eudaimonic motivation capable of being simultaneously transported and processing the subtext, or are they simply less likely to be transported and therefore more capable of scrutinizing the subtext? The E-ELM (Slater & Rouner, 2002) suggests that there should be an inverse relationship between transportation and the total number of subtext cognitions, regardless of valence. But this may be the case only for viewers with less eudaimonic entertainment motivation, who are more accustomed to abandoning subtextual considerations for the sake of narrative enjoyment. For these narrative consumers, transportation should disrupt intellectual exercise of subtext elaboration. Audiences with higher eudaimonic motivation may welcome the intellectual exercise that comes with subtext involvement even as they are narratively transported. If so, as eudaimonic motivation should increase the positive association between transportation and total subtext processing. On the other hand, if as eudaimonic motivation increases, the relationship between transportation and subtext processing decreases, this would suggest that the E-ELM's contention that transportation disrupts subtext processing applies regardless of people's entertainment use motivations. The current project investigates these possibilities.

2.7 Hypotheses and Research Questions

Transportation and subtext processing. A key argument of this paper is that eudaimonic motivation may lead people to engage in more total subtext processing (including counterarguments, intended elaborations, and non-valenced thoughts about the subtext) during narrative exposure because they are more inclined to attend to stories' underlying meanings. To reflect this prediction, a hypothesis was posed:

H1: Eudaimonic entertainment use motivation will positively predict total subtext processing.

Another important argument advanced in this study is that subtext processing might be able to occur even during narrative transportation. This claim is inconsistent with the E-ELM's contention that transportation reduces audience members' awareness of the persuasive subtext (Slater & Rouner, 2002). But, as previously discussed, the E-ELM is based upon the assumption that people have hedonic motivations when they consume stories. Eudaimonic motivation may increase the likelihood that viewers engage in simultaneous subtext and narrative focus.

Consistent with the E-ELM, transportation should impede total subtext processing for people with lower eudaimonic motivation (who are hedonically motivated by default). But individuals with higher eudaimonic motivations may find elaboration on the subtext to be entirely compatible with narrative transportation. Alternatively, if the E-ELM is accurate, the predicted negative effect of transportation on subtext processing may apply, regardless of eudaimonic motivation level. Because there are two feasible explanations for how eudaimonic motivation and narrative transportation are related, and how these variables may interact to affect subtext processing, two research questions were posed:

RQ1: How will transportation be associated with total subtext processing?

RQ2: How will eudaimonic entertainment use motivation moderate the effect of transportation on total subtext processing? (see Figure 2)

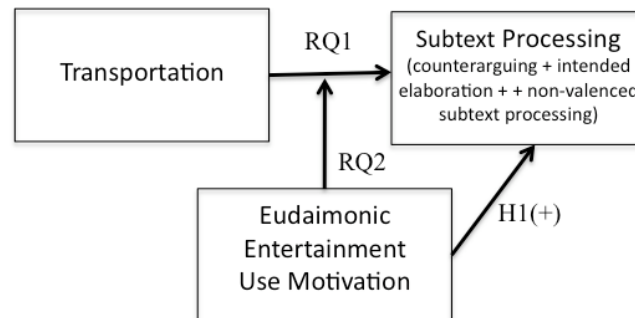


Figure 2. Predicted relationships between transportation and total subtext processing, and the moderating role of eudaimonic motivation

Supplemental conclusion scenes. Scholars working on the development of entertainment-education interventions and theory have suggested that supplemental conclusions have a beneficial effect on persuasive outcomes, in part because they restate important lessons in the narrative subtext that audience members would otherwise miss while they are transported. To test this proposition, the current study compares the persuasive impact of a television drama with, and without, a supplemental conclusion. Current theorizing on narrative persuasion suggests that audience members may have difficulty following the persuasive subtext (Slater & Rouner, 2002). As such, supplemental conclusions may be needed to explain or reinforce the recommended beliefs, attitudes and behaviors at the end of the story (Slater, 2002a). For this reason, participants in the supplemental conclusion condition are expected to exhibit beliefs about organ donation that are more consistent with the narrative subtext, have more favorable attitudes toward organ donation, and be more willing to register as organ donors. Accordingly, the following hypothesis is proposed:

H2: Participants in the supplemental conclusion condition will have more subtext consistent

beliefs, attitudes, and behavioral intentions than participants in the no conclusion condition.

Eudaimonic entertainment use motivation. People can be either more or less eudaimonically motivated to attend to, and focus on, the meaning of the story (Oliver & Bartsch, 2010), and this study has argued that this motivation should be tied to their ability to be persuaded by the meaning of the story. Those with greater eudaimonic motivation may be more inclined to process the underlying persuasive subtext, and thus should be more likely to generate intended elaborations in response. Importantly, a caveat to this premise is that intended elaboration will result in persuasion only if counterarguing, another type of subtext processing, is low. There is no guaranteed way to restrict participants' counterarguing, but selecting a narrative that they are unlikely to counterargue against creates a positive condition for the suppression of counterarguments and the generation of intended elaboration. For this reason, a narrative that has already been shown to be persuasive was selected as a stimulus (Morgan et al., 2009). The documented effectiveness of the story suggests that it succeeded at prompting more intended elaboration than counterargumentation. Hence, eudaimonic motivation is expected to positively predict story-consistent beliefs, attitudes, and intended behaviors.

The supplemental conclusion is also expected to moderate the effect of eudaimonic motivation on story consistent beliefs, attitudes, and behavioral intentions. In the no supplemental conclusion condition, eudaimonic motivation should be associated with greater persuasion. However, in the supplemental conclusion condition, eudaimonic motivation should be less strongly related (or not related at all) to subtext-consistent attitudes, because the supplemental conclusion will help bring people with lower eudaimonic motivation up to speed on the primary argument of the persuasive subtext. Put differently, the less eudaimonically

motivated participants are, the more persuasive influence the supplemental conclusion should have. Following this logic, it is predicted that:

H3: Eudaimonic motivation will positively predict story-consistent beliefs, attitudes, and behavioral intentions.

H4: Exposure to the supplemental conclusion and eudaimonic motivation will interact, such that the effect of eudaimonic motivation predicted in H3 will be greater for participants in the no conclusion condition (see Figure 3).

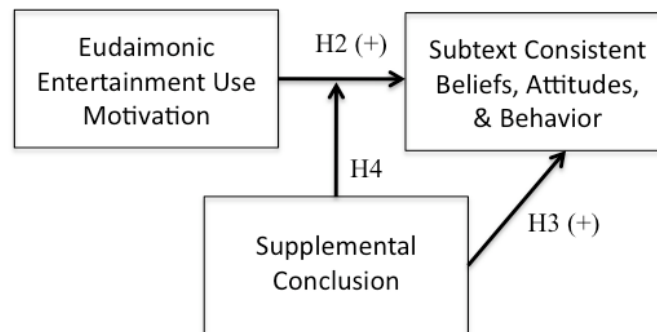


Figure 3. Predicted relationships between eudaimonic motivation, subtext consistent beliefs, attitudes, and behavioral intentions, and the moderating role of supplemental conclusion

The role of intended elaboration. This study is also concerned with examining intended elaboration as the cognitive mechanism responsible for the effects of eudaimonic motivation on narrative persuasion. As briefly mentioned in the prior rationale, the predictions expressed in H3 and H4 are based on the premise that eudaimonic motivation leads to supportive subtext processing. Presuming that counterarguing is low, this intended elaboration should play a critical and positive role in the persuasion process (Niederdeppe, Kim, et al., 2011; Wright, 1973). Hence, greater ability or motivation to generate intended elaboration should result in more episode-consistent beliefs, attitudes, and behavioral intentions. In other words, intended

elaboration (subtext processing in favor of the embedded arguments) is expected to mediate the relationship between eudaimonic motivation and persuasive outcomes.

It has already been argued that people who are less eudaimonically motivated should be more affected by the supplemental conclusion. This may be because they will be less inclined to process the persuasive subtext and generate intended elaboration that leads to persuasion, and therefore will benefit more from the direct appeal presented in the supplemental conclusion. If so, the same interaction between eudaimonic motivation and the supplemental conclusion predicted for persuasive outcomes should be mirrored for intended elaboration. Specifically, the positive association between eudaimonic motivation and intended elaboration should be stronger in the no conclusion condition than in the conclusion condition. This interaction would provide some evidence that expected effect of eudaimonic motivation on the persuasiveness of supplemental conclusions is due to intended elaboration. Based on this logic, the following four hypotheses were posed:

H5: Eudaimonic motivation will positively predict intended elaboration.

H6: Intended elaboration will positively predict story-consistent beliefs, attitudes, and behavioral intentions.

H7: Intended elaboration will mediate the effect of entertainment use motivation on story-consistent beliefs, attitudes, and behavioral intentions.

H8: The expected positive association between eudaimonic entertainment use motivation and intended elaboration (predicted in H5) will be stronger in the no supplemental conclusion condition than in the supplemental conclusion condition (see Figure 4).

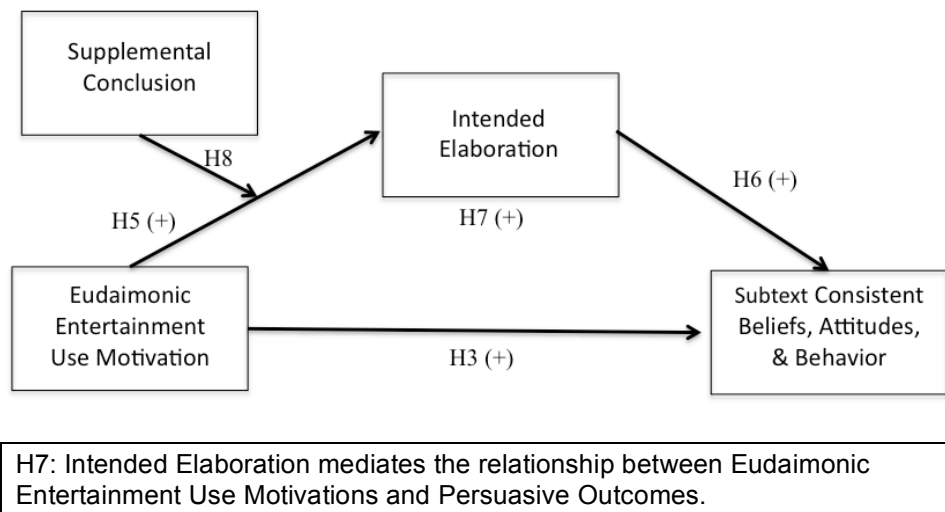


Figure 4. Predicted relationships among eudaimonic motivations, intended elaboration, persuasive outcomes, and supplemental conclusion.

3. METHOD

3.1 Research Design Overview

The objectives of the current research included examining the relationship of subtext processing and narrative transportation, determining how eudaimonic entertainment use motivation affects narrative persuasion processes such as intended elaboration, and to investigate how these processes are moderated by the inclusion of a supplemental conclusion condition. An experiment was conducted to investigate the persuasive effects of “Harvest,” an episode of the crime drama, *Numb3rs*, which was designed to inform viewers about consequences of donated organ shortage and persuade them to become organ donors. Participants were randomly assigned to view one of three episode conditions on a personal computer. In the first experimental condition, participants watched the full episode of “Harvest,” including a supplemental conclusion scene. To compare the effects of this version to a no conclusion condition, participants assigned to the second experimental condition viewed a version of “Harvest” that had the supplemental conclusion edited out. Finally, to provide a benchmark to assess the persuasiveness of the experimental episode, participants assigned to the control condition viewed a different episode of *Numb3rs* that did not have a persuasive subtext related to organ donation.

All participants were asked to complete two questionnaires. The first questionnaire (Appendix B) was administered online when participants were recruited, at least five days before they participated in the experiment. The second questionnaire (Appendix C) was administered online after participants finished watching the *Numb3rs* episode.

Procedure

When participants initially signed up for the experiment they were asked to read and sign an informed consent form and complete an online questionnaire assessing their responses to

questions about their media habits, entertainment use motivations, and some beliefs and attitudes related to organ donation. Questions related to organ donation were embedded in a longer list of questions about attitudes towards other optional medical procedures (cosmetic surgery and vaccinations). At this time, participants were given an opportunity to sign up for a computer lab appointment to screen the episode.

No more than 15 participants were scheduled to come to the computer lab during each appointment slot. Upon arriving at the computer lab, participants were randomly assigned to one of three websites where different versions of the episode were embedded. Each participant was seated at a personal computer workstation and given headphones to use while viewing the episode. These computer spaces were partitioned so that participants could not see other participants' computer screen. To minimize distractions during viewing, participants were instructed to turn off any electronic devices and stow them with their other personal belongings, beneath their chairs. All participants remained seated from the time they started watching the episode until the time they completed the questionnaire.

All participants watched an episode of *Num3ers*. Participants in both experimental conditions watched the same episode, "Harvest," with a storyline about organ donation. Those in the supplemental conclusion condition viewed the episode in its entirety, including a conclusion scene in which the main characters present arguments to another character about why he should become an organ donor. In the no conclusion condition, the last scene viewed by participants resolves the conflict in the story, but no additional reference is made to the episode's persuasive organ donation subtext. Participants in the control condition watched an entirely different episode of *Numb3rs* about Avian Flu, so that they could report on their organ donation attitudes and behaviors without having been exposed to the persuasive organ donation storyline.

Before watching the episode, participants in all three conditions read the same instructions on the computer screen:

You will watch an episode from television crime drama *Numb3rs* that addresses a medical topic. We are interested in learning how different audiences respond to this episode. A common method of gauging audiences' response to shows is to assess what thoughts and feelings people have about the program while they are watching it. Relax, and try to watch the show as if you would if you were at home. You will be asked to list your thoughts and feelings about the episode at the end of the show.

Immediately after participants watched the episode, they were asked to type any thoughts and feelings they remembered having while watching the episode. After the thought- and feeling-listing, participants completed a questionnaire that took a second assessment of some of their beliefs and attitudes related to organ donation using many of the same measures from the first questionnaire, plus several additional measures. Behavioral intentions related to organ donation and cognitive and emotional reactions to the episode, were also measured with this questionnaire. From start to finish the lab portion the experiment took most participants just over 1 hour to complete: approximately 43 minutes to watch the episode and slightly over 15 minutes to complete the second questionnaire.

3.2 Participants

This study used a convenience sample of college students, a demographic that is often targeted by strategic organ donation messages because younger adults are generally healthier and at greater risk for dying in the types of accidents that make organ donation possible (Feeley & Servoss, 2005). A total of 259 Georgia State University students were recruited from communication and psychology classes. Forty-nine students who did not complete the

experimental portion of the study were excluded from analysis. Nine other students were also excluded: three individuals who reported having already seen “Harvest,” and six individuals who did not respond correctly to the manipulation check. Thus, the final sample used for analysis consisted of 201 undergraduate students (149 female, 52 male). The age of participants ranged from 18 to 45 years ($M = 21.55$, $SD = 3.94$). Nearly half of respondents identified themselves as African-American (45.3%), 32.8% as Caucasian, 6.0% as East Asian/Pacific Islander, 1.0% as South Asian, 7.5% Hispanic, 6.0% as multiracial, “other,” and 1.0% did not report their race/ethnicity. Over 40 different academic majors were represented in this sample. More than half of respondents (60.2%) indicated that they were registered organ donors. Of these, 98.5% were registered on their drivers’ license, and the other 1.5% reported being registered by signing an organ donor card. A large majority of white participants in the sample reported being registered donors but minority groups (African-Americans, East-Asian/Pacific Islanders, South Asians, and Hispanics) each had a donation rate of about 50%. Specifically, 80.3% of whites were registered donors, compared to 50.4% of non-whites.

3.3 Narrative Stimuli

Participants were assigned to view one of two episodes of the crime drama *Num3ers*; one episode, “Harvest,” served as the experimental stimulus (with or without a supplemental conclusion) and the other episode served as a control. The complete “Harvest” episode was 43 minutes and 45 seconds long, and the same episode with the supplemental conclusion edited out was 41 minutes and 41 seconds long. The control episode, “Undercurrents,” was 43 minutes and 40 seconds long. *Num3ers*, which ran on CBS from 2005 to 2010, followed the crime solving pursuits of a team of FBI agents that included two brothers, Don and Charlie Eppes. Charlie Eppes is a genius and the FBI team relies on his mathematical expertise to help solve crimes in

each episode. Like other police procedural shows, most *Numb3rs* episodes are focused on the team's effort to solve one crime.

Experimental episode. The experimental episode, "Harvest," had been designed with a persuasive message about organ donation embedded in the narrative. The episode is from the second season of *Num3ers*. At the beginning of the episode, Santi, a teenager from India is found in a dirty and bloody basement. Santi eventually reveals to the FBI that she had come with other girls to the United States to sell their organs in order to make money to support their families, but the other girls, including her sister, are missing. One girl is found in the morgue, having died when someone removed her kidney. FBI investigators learn that hospital employees were involved with the organ harvesting operation, and conjecture that the organs were harvested for someone who needed a transplant but was not eligible for the transplant list. An organ-matching database allows the investigators to use Santi's blood to identify the person most likely to receive organs from her sister who is still missing. This provides the information they need to find Santi's sister and rescue her before her organs are procured. During the course of the investigation, Don Eppes's father shares a story with him about a friend who had a disease that made him ineligible for the transplant list. He explains to Don that the shortage of donated organs fuels the organ black market. The episode is resolved with the FBI team rescuing Santi's sister in time. "Harvest" was watched by over 13.22 million people when it aired on January 27, 2006 (The Futon Critic, 2006).

One benefit of using this particular episode was that it concludes with a final supplemental conclusion that could be edited out for the current experiment. In this scene, four of the main characters who are already registered as organ donors, persuade a another character to register as an organ donor. The scene lasts for two minutes and four seconds. Although this

scene is part of the narrative, Movius, Cody, Huang, Berkowitz, and Morgan (2007) argue that the scene functions as an appeal promoting organ donation, underscoring the lessons from the episode as a whole about why organ donation is important (i.e., the organ donation black market will disappear if more people register as organ donors).

Another benefit of using this episode was that it has already been shown to be persuasive. The script for “Harvest” is a result of collaborative efforts between the show’s writers and Hollywood Health & Society (HH&S), an organization consisting of public health professionals that helps writers and producers incorporate accurate health information into their storylines. In this way, the show was designed as an entertainment-education tool, although according to Movius et al.’s (2007) case study of the writing collaboration, HH&S representatives advocated for the pro-organ donation subtext, but expressed concern about the organ black market storyline, which they feared would make audiences believe that the organ donation black market exists in the U.S. After “Harvest” aired, Morgan, Movius, & Cody (2009) found evidence of the show’s persuasiveness when they surveyed an online sample of nearly 4,500 people from websites and chatrooms dedicated to *Numb3rs* and other primetime dramas. After the show aired, non-organ donors who viewed *Numb3rs* were more likely to report being willing to become donors and advocate for others to become donors, than viewers of other shows (e.g., CSI: NY, Grey’s Anatomy) who had not viewed “Harvest.” A follow-up question showed that the viewers of “Harvest” were more likely to agree that the episode “made [them] think about the importance of organ donation” than those who did not see the show. The “Harvest” episode also increased other, inaccurate beliefs related to organ donation, such as the belief that a black market for organs exists. Accordingly, another advantage of using this episode in a study of narrative persuasion was that it afforded opportunities to examine whether the predicted subtext

processing persuasion effects occur with other messages embedded in the show that could persuade participants (e.g., participation in the organ donation black market is a relatively common occurrence). The purpose of this research was not only to test whether narrative supplemental conclusions are persuasive or not, but also to investigate the mechanisms by which stories—entertainment-education stories in particular—persuade. For this reason it was advantageous to use a show with embedded health messages that have already demonstrated educational effectiveness.

An additional reason that “Harvest” was a good case study for this research is that the episode does not relegate the topic of organ donation to a subplot. Television dramas typically consist of a major plot and a subplot that is interwoven into the major plot. The major plot is the central focus of the episode, but the subplot is more peripheral. Entertainment-education issues are often relegated to subplots, but “Harvest’s” major plot focuses on organ donation. This is advantageous for a study of narrative and subtext focus because it may increase the ease with which participants are able to catch the elements they are instructed to focus on.

Control episode. Participants assigned to the control group viewed “Undercurrents,” another *Numb3rs* episode that addresses a different health issue: avian flu. In this episode, the FBI team investigates the identity of dead bodies that wash ashore and could be infected with the N1-H1 virus, leading to discussions among the characters about the possibilities of flu pandemic. No mention of organ donation is made in this episode.

3.4 Thought-Listing Measures

Immediately after viewing, participants in all three conditions were instructed to list all thoughts or feelings that they remembered having had while they were watching the episode. The listing instructions concluded with the following statement “Please list only thoughts or feelings

that you remember having *while* you watched the show.” Participants were instructed to write “sentence-length descriptions” for each of their thoughts and the unit of analysis for coding was typically comprised of a single statement.¹ Only thoughts in response to the “Harvest” episode were coded. A total of 526 separate thoughts were listed by 134 participants.

Subtext and narrative processing content analysis. Two independent coders coded each thought in response to the “Harvest” episode according to whether it addressed a narrative element (related to plot, casting, acting, etc.), a subtextual element (related to organ donation promotion or the existence of organ donation black markets), or if it was irrelevant to the episode. Appendix D contains the codebook for this analysis. The codebook included instructions for coding specific types of narrative and subtext thoughts (e.g., intended elaboration about organ donation subtext and intended elaboration about black market subtext), but to address the current research questions and hypotheses the variables were all collapsed into overall measures of narrative processing, counterarguing, intended elaboration, and total subtext processing. Subtext related thoughts were coded according to whether they were counterarguments (narrative inconsistent; e.g., “Organ black markets don’t really exist”), intended elaboration (narrative consistent; e.g., “More people should become organ donors”) or

¹ In some cases, participants wrote multiple sentences to express different clauses of a single thought (e.g., “I don’t like the woman playing the FBI agent. She’s a bad actress.”). To ensure that single thoughts expressed in multiple sentences were not weighted more heavily in analyses, two coders reviewed all of the comments to identify single thoughts that were expressed in two or more sentences. Multiple sentences were counted as a single thought if 1) the sentences elaborated on the same idea and did not introduce any new ideas, and 2) if the sentences could act as separate clauses of the same sentence (e.g., “I don’t like the woman playing the FBI agent; she’s a bad actress). The coders agreed on 89% of the thoughts identified as multiple sentence ideas. Disagreements were resolved through discussion. Thirty of the thoughts listed (5.7%) consisted of more than one sentence.

non-valenced (e.g., “The episode really made me think about organ donation”). A third coder resolved disagreements. Indexes for narrative processing, counterarguments, and intended elaboration were created by the sum of statements coded for each of these categories.

Additionally, an index of total subtext processing was created from the sum of counterarguments, intended elaboration, and non-valenced subtext thoughts. Percent agreement for the four variables ranged from 90% to 99%.

3.5 Scaled Measures

Manipulation check. As a check to make sure that participants in the conclusion condition noticed the supplemental conclusion (and that those in the no conclusion condition did not), participants were asked whether the following event had occurred during the episode: “The main characters discuss organ donation registration while having dinner together.” This item was embedded in a list that included four other scenes. Participants could respond by indicating either “yes, that did happen,” or “no, that did not happen.”

Perceived persuasiveness. Moyer-Gusé and Nabi’s (2010) single-item measure of persuasive intent was included on the second survey to permit an examination of whether participants in the conclusion and no conclusion conditions had different perceptions about how persuasive versus entertaining the episode was intended to be. Participants were asked, “to what extent do you believe the show was designed to be entertaining or persuasive?” They assessed persuasive intent on a 7-point scale (1 = entertaining; 4 = equally entertaining and persuasive; 7 = persuasive) ($M = 4.48$; $SD = 1.23$).

Entertainment use motivations. Oliver and Raney’s (2011) 12-item measure of entertainment consumption motivations was adapted to gauge participants’ eudaimonic and hedonic motivations. In an attempt to better distinguish between eudaimonic and hedonic

motivations as stable preferences, the wording of some items was adjusted to measure participants' inclinations to seek different types of media. For instance, the eudaimonic item "I like media that focus on meaningful human conditions," was changed to "I seek out media that focus on meaningful human conditions." A total of six items comprise the eudaimonic dimension of the scale (e.g., "My favorite kind of shows are ones that make me think."), and six comprise the hedonic dimension (e.g., "I find that even simple shows can be enjoyable as long as they are fun.") The scale was included on the first questionnaire. All items were measured with a 7-point scale (0 = Disagree Strongly; 6 = Agree Strongly). Both scales were reliable (eudaimonic motivation, $\alpha = .88$; hedonic motivation, $\alpha = .81$). The full scale can be found in Appendix A.

Transportation. Eleven items from Green and Brock's (2000) transportation scale (see Appendix A) were used to assess narrative transportation (e.g., "I was mentally involved in the show while watching it"; "After finishing the episode, I found it easy to put out of my mind"). Items were rated on a 7-point scale: 0 = Disagree Strongly and 6 = Agree Strongly ($\alpha = .76$).

Inaccurate beliefs about organ donation. Morgan et al. (2009) found that just as viewing "Harvest" increased positive emotions about organ donation, it also increased some inaccurate beliefs about the process or organ donation. Three items from Morgan et al.'s belief statements measuring perceptions organ donation that gauged beliefs in two different myths about the process were selected for the current study.² Agreement to the different statements was assessed on a seven-point scale (0 = Disagree Strongly; 6 = Agree Strongly). Two items that measured perceptions of doctors' willingness to save registered organ donors during medical emergencies

² Although only three items that assessed doctor mistrust and belief in U.S. organ black market are used for the current study, participants responded to a total of 10 of Morgan et al.'s belief items, that tapped into different beliefs about organ donation. These items will be examined in subsequent analyses using the current dataset.

were used as an index of doctor mistrust: “Doctors might let me die if they know I am an organ donor” and “Doctors work just as hard to save a patient who is an organ donor as one who is not.” The second item was reverse coded, and responses to the statements were averaged. Higher scores indicate greater doctor mistrust ($\alpha = .76$). Additionally, because Morgan et al. found that viewers of “Harvest” were more likely than viewers of other shows to believe that there was a U.S. organ black market, their single-item measure of this belief (“Organs can be bought and sold on the black market in the U.S.”) responses to was also included.

Organ donation attitudes. Two indexes assessed participants’ global attitudes toward other people becoming organ donors, and the benefits associated with being an organ donor. These measures were administered on both the first and second questionnaire. The full scales for each of these measures are displayed in Appendix A.

Attitudes towards others as organ donors. A five-item scale (Morgan et al., 2008) was used to measure how supportive and encouraging participants were of other people’s decision to become organ donors (e.g. “I would support other people if they decided to become organ donors”). . Participants reported their agreement with the statements on a scale ranging from 0 (Disagree Strongly) to 6 (Agree Strongly). Scale items were averaged ($\alpha = .73$).

Perceptions of organ donation benefits. As another attitude assessment, Morgan, Stephenson, Harrison, Walid, and Long’s (2008) five-item scale was used to measure participants’ perceptions of benefits related to organ donation (e.g., “Organ donors are heroic because they save lives”). Participants indicated their agreement with statements on a scale of 0 (Disagree Strongly) to 6 (Agree Strongly) ($\alpha = .69$).

Behavioral intentions. Four measures of participants’ willing to engage in behaviors related to the promotion of organ donation were taken. All participants responded to two

behavioral intent measures: willingness to communicate about organ donation with others, and willingness to engage in live organ donation if needed. Participants who had already become registered donors ($n = 82$) assessed the extent of their commitment to their decision to be an organ donor. Intent to register as an organ donor was measured for participants who indicated that they had not already become registered donors ($n = 52$). Each of these measures was included in the second questionnaire.

Willingness to communicate about organ donation. Participants completed the four-item Willingness to Communicate About Organ Donation Scale (developed by Morgan & Miller, 2002, extended by Smith et al., 2004). The scale measures the extent participants agree with statements related to discussing organ donation with other people on a seven-point scale (0 = Disagree Strongly; 6 = Agree Strongly). Scale items were averaged and exhibited good reliability ($\alpha = .91$).

Live organ donation willingness. Participants responded to two hypothetical questions that asked how willing (0 = “Not At All Willing”; 6 = “Very Willing”) they would be to donate one of their kidneys if 1) a family member or close friend, or 2) an acquaintance “required a kidney transplant to save their life.” Responses to these two items were averaged to provide a measure of live organ donation willingness ($\alpha = .67$).

Organ donor commitment. Many participants may not have been persuaded to become organ donors because they already were registered as donors. However, there may be variation in how satisfied registered donors are with their decision, and how willing they would be to recommend it to other people (Cohen & Hoffner, in press). As an alternate measure of donor registration intent, participants who were already registered organ donors were asked to indicate their commitment to their decision by assessing their agreement with five statements about how

they feel about their decision (e.g., “I feel proud of my decision to be an organ donor”), as well as whether they would advise others to register as donors (“I would recommend the decision to become an organ donor to other people”) on a seven-point scale (0 = Disagree Strongly; 6 = Agree Strongly). An index of donor commitment was created by taking an average of these items ($\alpha = .91$).

Donor registration intent. At the end of the second questionnaire participants read a passage explaining that they could register to become a donor or find out more information online about becoming a donor. A link to the donor.gov website’s registration page was provided and participants were given an option to click on the link or click on an alternative link if they had no interest in registering. The alternative link took participants to a study conclusion page that thanked them for their participation. A record of which link each participant chose was kept as an additional indicator of donor registration intent. All participants in the study had the opportunity to click on the link to register, only responses from participants who indicated that they were not already registered donors were included in the analyses of this item.

3.6 Additional Measures

In addition to the variables measured to examine the research questions and hypotheses, the first and second questionnaires included items measuring additional variables that may be used in subsequent analyses on the same dataset. These measures include emotional and cognitive responses to the episode, episode recall, message processing, character identification, and additional organ donation beliefs and attitudes.

4. RESULTS

4.1 Overview of Analyses

The hypotheses and research questions for this study were addressed with a series of ANCOVAs and multiple regression analyses. Dependent variables used in the analyses included total subtext processing, intended elaboration, and persuasive outcomes. Hypotheses that made predictions about “beliefs, attitudes, and behavioral intentions” were probed by examining at least six persuasive outcome variables: inaccurate beliefs about organ donation (mistrust of doctors involved with organ donation, and belief in the U.S. organ black market), attitudes towards organ donation (attitudes towards others as donors, and perceptions of organ donation benefits), and behavioral intentions (willingness to communicate about organ donation, and live organ donation willingness). Two additional persuasive outcome variables were analyzed: donor registration intent was examined for participants who indicated that they were not already registered organ donors, and commitment to organ donation was examined for registered donors.

In all analyses that included controls, two variables that could be related to organ donation sentiments were controlled. Gender was included as a control because women tend to be more willing to become organ donors (Weber et al., 2006). Race was also added as a control. Because African Americans tend to have less favorable attitudes toward organ donation than other groups (Park, Smith, & Yun, 2009), and because they constituted the largest racial/ethnic group in the sample, they were designated as the reference group in a dichotomous race variable.³ In addition, in analyses examining eudaimonic entertainment use motivation, a third

³ As a check to make sure that designating African Americans as the reference group did not result in unique effects, separate analyses were also run with a dichotomous race variable that used whites as the reference group, and non-whites as the comparison group. No differences between the analyses that used the African American reference variable and the white reference variable were observed.

variable was controlled. This study suggests that hedonic motivation may function as a default motivation for entertainment use, whereas eudaimonic motivation for entertainment is a less common phenomenon. However, because eudaimonic and hedonic motivation may sometimes vary together (Oliver & Raney, 2010), examining the unique effects of eudaimonic motivation necessitated holding hedonic motivation constant. As such, hedonic motivation was also included as a control in the analyses examining eudaimonic motivation.

The analyses for this study proceeded in four stages. First, preliminary analyses were conducted to obtain descriptive information, establish the persuasiveness of the experimental episode, and check the random assignment procedure and experimental manipulation. Second, to address H1, RQ1, and RQ2, a linear regression predicting the amount of total subtext processing, with eudaimonic motivation, transportation and the interaction term as independent variables was conducted. Third, H2, H3, and H4 were examined with a series of regression analyses predicting persuasive outcomes with eudaimonic motivation, conclusion conditions, and the their interaction. Finally, for H5, H6, H7, and H8 a regression analysis predicting intended elaboration with eudaimonic motivation and conclusion condition was performed.

The preliminary analysis examining whether “Harvest” was persuasive compared to the control episode was the only one to use the full sample. Participants in the control condition were excluded from additional analyses. Unless otherwise noted, remainder of analyses used participants assigned to the conclusion and no conclusion conditions (N = 134).

As a check to make sure that designating African Americans as the reference group did not result in unique effects, separate analyses were also run with a dichotomous race variable that used whites as the reference group, and non-whites as the comparison group. No differences between the analyses that used the African American reference variable and the white reference variable were observed.

4.2 Descriptive Analyses

Thought-listing content results. The thought-listing responses for the 134 participants in the conclusion and no conclusion conditions were coded according to the type of processing they reflected. A total of 536 thoughts were coded. The mean number of thoughts reported was 3.67 ($SD = 2.21$). Thoughts that evidenced more than one type of processing were coded as both processing types. A total of 19 thoughts, 3.5% of the thoughts, were coded in this manner. Table 1 displays examples of the different types that emerged during coding.

Table 1

<i>Examples of Types of Processing Evidenced in Thought-Listing</i>	
Type of Processing	Examples from Thought-Listing
Narrative Processing	“I really liked the action in the episode but the episode seemed very unrealistic.”
	“I felt sorry for Santi, and I felt happy at the end when Santi and her sister were reunited.”
	“The actors are so attractive”
Counterarguing	“The ‘educational’ messages felt too overt.”
	“I question how many people actually use illegal organs”
	“The message at the end about organ donation felt more like a PSA than for the purposes of entertainment.”
Intended Elaboration	“I thought about how if everyone was a organ donor then there would not be a demand for selling organs.”
	“Everyone should be an organ donor, there's no point to not be.”
	“It’s crazy that the black market really does sell organs.”
Non-Valenced Subtext Processing	“It makes you think about how far you would be willing to go to help someone who may need a kidney.”
	“I wondered if I should become a organ donor.”
	“The show just made me think more about being an organ donor and how the process works.”

Table 2 lists the frequency in which each type of processing occurred.

Table 2

<i>Frequency of Processing Types</i>			
Variables	Frequency	Percent of Total Thoughts	Percent of Participants Who Listed
1. Narrative Processing	424	79%	86%
2. Counterarguing	11	2%	5%
3. Intended Elaboration	79	15%	32%
4. Non-Valenced Subtext Processing	31	6%	18%
5. Total Subtext Processing	121	23%	41%

Note. N = 134. Total Subtext processing is the sum of counterarguments, intended elaboration, plus thoughts that addressed the subtext but were non-valenced. The sum of percent of total thoughts exceeds 100% because some thoughts were coded as more than one type of processing.

Responses about aspects of the story other than the subtext were coded as narrative processing, such as references to casting, acting, characters, events in the story, storyline, writing, entertainment value, genre, realism, or show popularity (e.g., “When the sisters were reunited, I was overjoyed”). Eighty-six percent of participants reported engaging in narrative processing at least once, and this type of processing accounted for 79% of the total thoughts, suggesting that the episode encouraged focus on story-related features.

Counterarguments were broadly operationalized as any opposition or resistance to the subtext or the persuasive intent of the subtext, (e.g., “I don't think I'd want to be an organ donor for the same reason the mathematician doesn't”). As expected, counterarguing in response to any of the subtextual messages in “Harvest” was a particularly rare occurrence. Only 2% of the listed thoughts were counterarguments.

Intended elaboration was defined as any expressed acceptance or agreement with a subtextual message (e.g., “It makes you think about being willing to give of yourself to help someone who may need a kidney”). Intended elaboration was more prevalent than counterarguments, but was not common. Intended elaborations on the subtext accounted for 15% of the total thoughts.

Total subtext processing was calculated by summing the number of counterarguments, intended elaborations, and non-valenced references to the subtext. References to the subtext that were not counter to or supportive of the message were coded as non-valenced subtextual references. These references may have reflected ambivalence, or simply referenced the subtext without evaluating it (e.g., “This episode really made me think about organ donation” or “I question how common illegal organ use actually is, but I don't doubt that it happens”). Forty-one percent of viewers engaged in some form of subtext processing. Total subtext processing accounted for almost a quarter (23%) of listed thoughts, suggesting that, despite infrequent intended elaboration and counterarguing, the story's underlying messages were not completely out of the range of awareness.

Descriptive statistics. The means and standard deviations for the continuous variables can be found in Table 3. Table 4 displays the correlations between variables. Compared to males, females were more likely to be transported, less likely to engage in total subtext processing, and had stronger positive attitudes toward others becoming donors. Compared to black participants, non-black participants reported less narrative transportation and less mistrust of doctors. Narrative transportation was positively correlated with organ donation benefit perceptions and willingness to become a live organ donor. Belief in the U.S. organ black market was positively correlated with commitment to organ donation. Doctor mistrust was negatively correlated with attitude towards others as donors, willingness to communicate about organ donation, willingness

to become a live donor, and commitment to organ donation. Attitude towards others as donors, organ donation benefit perceptions, willingness to communicate about organ donation, and willingness to become a live donor, and commitment to organ donation were all positively correlated with each other. Regarding organ donation intent, nonregistered donors who clicked the link to the website to register as a donor were more willing to communicate about organ donation than those who did not click the link.

Table 3

<i>Variable Means and Standard Deviations</i>		
	<i>M</i>	<i>SD</i>
Eudaimonic Motivation	3.89	1.20
Hedonistic Motivation	4.18	1.05
Transportation	3.59	.88
Total Subtext Processing	.65	1.03
Intended Elaboration	.42	.68
Belief in U.S. Black Market	4.51	1.53
Doctor Mistrust	1.95	1.47
Attitude Toward Others as Donors	4.24	1.01
Organ Donation Benefit Perception	3.79	1.22
Willingness to Communicate About Organ Donation	4.40	1.48
Willingness to be a Live Organ Donor	2.75	.81
Donor Commitment	3.36	1.66

Note. Total Subtext Processing and Intended Elaboration are count variables. The range of possible scores for all other measures was 0 to 6.

Table 4

<i>Zero-Order Correlations Between Variables</i>														
	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Gender (0 = male, 1 = female)	-.14	-.12	.09	.14*	-.15*	-.17*	-.11	.03	.19**	.13	.01	.05	.04	-.05
2. Race (0 = black, 1 = other)	---	.03	.17	-.24**	-.04	.06	.16	-.24**	.06	-.03	-.07	.14	.13	-.12
3. Eudaimonic Motivation	---	---	-.01	.03	-.11	-.15	.05	.06	.12	.13	.12	-.02	-.02	.04
4. Hedonistic Motivation	---	---	---	.06	.11	.05	.01	.02	.03	.03	-.02	-.01	.08	-.10
5. Transportation	---	---	---	---	.11	.07	-.00	.11	.07	.14*	-.03	.19**	.08	.10
6. Intended Elaboration	---	---	---	---	---	.84***	.01	.02	-.07	.05	-.01	-.07	-.01	-.01
7. Total Subtext Processing	---	---	---	---	---	---	.03	.15	-.13	.02	-.06	-.12	.78***	-.07
8. Belief in U.S. Black Market	---	---	---	---	---	---	---	-.04	.04	.02	.11	.07	.17*	-.01
9. Doctor Mistrust	---	---	---	---	---	---	---	---	-.40***	-.10	-.40***	-.22**	-.53***	-.09
10. Attitude Toward Others as Donors	---	---	---	---	---	---	---	---	---	.42***	.67***	.27**	.77***	-.01
11. Organ Donation Benefit Perception	---	---	---	---	---	---	---	---	---	---	.30**	.15*	.32***	.07
12. Willingness to Communicate About Donation	---	---	---	---	---	---	---	---	---	---	---	.31***	.68***	.18*
13. Willingness to be a Live Organ Donor	---	---	---	---	---	---	---	---	---	---	---	---	.37***	.12
14. Donor Commitment	---	---	---	---	---	---	---	---	---	---	---	---	---	.15
15. Donor Registration Intent (0 = Did Not Click Link, 1 = Clicked Link)	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

Note. Race, Gender, and Donor Registration Intent are dichotomous variables. Total Subtext Processing and Intended Elaboration are count variables. Possible scores for all other items ranged from 0 to 6. For Donor Commitment, $n = 82$. For Donor Registration Intent, $n = 52$. For all other variables, $N = 134$.

4.3 Preliminary Analyses

Random assignment check. A series of one-way ANOVAs were conducted to confirm that the random assignment to conclusion, no conclusion, and control conditions was effective, and that participants in these conditions did not differ in their preexisting beliefs and attitudes related to organ donation. The means of participants responses to the four belief and attitude measures included in the first questionnaire were compared across the three conditions: belief in the U.S. black market, $F(2, 186) = .03, p = n.s.$, doctor mistrust, $F(2, 186) = .37, p = n.s.$, attitude towards others as donors, $F(2, 186) = .01, p = n.s.$, and organ donation benefit perception, $F(2, 186) = .99, p = n.s.$ The analyses confirmed that participants in different conditions did not differ in any these pre-test beliefs and attitudes related to organ donation.

Persuasive episode effects. The “Harvest” episode of *Numb3rs* was selected as the stimulus for the current study because past survey research had already demonstrated that exposure to the episode was associated with some of the intended and unintended persuasive outcomes, such as greater willingness to register as organ donors (Morgan et al., 2009). The current study is among the first to test the episode’s persuasiveness by randomly assigning viewers to watch “Harvest” or an episode unrelated to organ donation. Participants in the two conclusion conditions were combined, and separate ANCOVAs were conducted, comparing participants exposed to the “Harvest” episode to those who viewed the control episode, on six persuasive outcome variables. Results of these analyses are displayed in Table 5.

The only difference in persuasive outcomes emerged for belief in a U.S. organ donation black market. Compared to the control group, participants who viewed “Harvest” expressed more confidence in the belief that organs could be bought and sold on a U.S. black market, $F(1, 197) = 10.01, p = .002$. There were no other significant differences between the experimental and

control conditions. Participants in the control condition were not included in any additional analyses.

Table 5

ANCOVAs Testing the Effects of Experimental Episode Exposure on Persuasive Outcomes

Dependent Variable	Experimental Conditions Mean (SD)	Control Group Mean (SD)	F
1. Belief in U.S. Black Market	4.51 (1.53)	3.79 (1.72)	10.01**
2. Doctor Mistrust	1.95 (1.47)	1.74 (1.46)	1.26
3. Attitude Toward Others as Organ Donors	4.24 (1.01)	4.11 (1.24)	.117
4. Organ Donor Benefit Perceptions	3.79 (1.22)	3.89 (1.36)	.48
5. Willingness to Communicate About Organ Donation	4.40 (1.48)	4.38 (1.52)	.00
6. Willingness to be a Live Organ Donor	2.74 (.81)	2.85 (.77)	.95

** $p < .01$

Note. Experimental Group consisted of any participant exposed to the “Harvest” episode. Gender and race (black vs. other) were entered as covariates in each analysis. For each F value, $df = (1, 197)$.

Manipulation check. A primary objective of this study was to examine the effects of a supplemental conclusion scene on persuasion. Four questions asked participants whether different scenes did or not occur during the episode. The questions were answered correctly by 93.3% of participants, and no participants answered more than one question incorrectly, indicating that general recall of the episode was quite good. As a check that those in the conclusion condition were aware of the final scene, a different item asked whether participants recalled (or did not recall) seeing the events that took place in that scene. A chi-square analysis compared recall of the concluding scene among participants in two experimental conditions. This analysis confirmed that the supplemental conclusion manipulation was effective, $\chi^2(1, N = 140) = 117.09, p < .001$. Participants in the no-conclusion condition did not recall the final scene

(97.2%), but participants in the supplemental conclusion condition did (94.1%). Four participants in the no-conclusion condition, and two participants in the conclusion condition who answered this question incorrectly were excluded from subsequent analysis. After these exclusions, there were 64 participants in the conclusion condition, 70 in the no conclusion condition, and 67 in the control condition. Notably, participants in the conclusion condition also rated the episode as having a greater persuasive intent ($M = 4.95$) than participants in the no-conclusion condition ($M = 4.06$), $t(128) = -4.40$, $p < .001$.

4.3 Transportation, Eudaimonic Motivation, and Subtext Processing

An important theoretical objective of this research was to investigate the relationship between transportation and total subtext processing. Consistent with the E-ELM (Slater & Rouner, 2002) transportation may inhibit subtext processing. However, as previously discussed, there may be some cases, such as when eudaimonic motivation runs high, that transportation may actually increase viewers' contemplation of the subtext. To address H1, RQ1, and RQ2, and investigate the relationship between eudaimonic motivation, transportation, and total subtext processing (including intended elaboration, counterarguing, and non-valenced subtext-related thoughts), a regression analysis with total subtext processing as the dependent variable was conducted. The distribution of total subtext processing was positively skewed, so a square root transformation was performed on this variable. The linear regression model consisted of control variables (gender, race, hedonic motivation) in the first step, eudaimonic motivation in the second step, followed by transportation in the third step, and a transportation x eudaimonic motivation interaction term in the fourth step. The results of this regression are displayed in Table 6.

Contrary to H1, which predicted a positive relationship between eudaimonic motivation

and total subtext processing, eudaimonic motivation was a significant negative predictor of total subtext processing ($b = -.14, p = .05$). RQ1 asked how transportation would be related to total subtext processing. Transportation emerged as a positive predictor of total subtext processing, although this effect was marginally significant ($b = .17, p = .09$). Finally, concerning RQ2, there was no evidence of a eudaimonic motivation x transportation interaction.

Table 6

<i>Regression Predicting Total Subtext Processing</i>				
	b	SE	beta	R ² Change
Controls				.04
Gender (0 = male)	-.38+	.22	-.15	
Race (0 = black)	.13	.19	.06	
Hedonic Motivation	.10	.90	.10	
Eudaimonic Motivation	-.14*	.07	-.16	.02*
Transportation	.17+	.10	.12	.02+
Interaction				.00
Eudaimonic Motivation x Transportation	-.01	-.04	-.04	
Adjusted R ² = .04				
$F(5,120) = 1.96+$				

+ $p < .10$, * $p \leq .05$

Note. b's in the table are unstandardized regression coefficients at entry and betas are standardized coefficients at entry.

Given the marginally positive relationship between transportation and total subtext processing, it was possible that subcategories of subtext processing, which are directly related to persuasion outcomes, also could be positively associated with transportation. Unfortunately, the small amount of counterarguments produced in response to the episode did not permit an examination of how transportation and counterargumentation were related in this study. But a

supplementary regression with the same model as the one used for total subtext processing was conducted with intended elaboration as the dependent variable. In this analysis transportation was not related to intended elaboration.

4.4 Supplemental Conclusion and Eudaimonic Motivation Effects on Intended Elaboration

As shown in Figure 3, H2 predicted that participants in the conclusion condition would have more subtext consistent beliefs, attitudes, and behavior than participants in the no conclusion condition. H3 predicted that eudaimonic motivation would positively predict persuasive outcomes, and H4 predicted that the positive effect of the supplemental conclusion would be enhanced by eudaimonic entertainment motivation. To examine these hypotheses, separate hierarchical linear regression models were constructed for each of six persuasive outcome variables. Two additional regression models were constructed for two persuasive outcomes obtained for subsamples: participants who had versus had not yet registered as organ donors. In the first step of each model, participant gender, race (black or other), and hedonic motivation were entered as controls. A dichotomous variable comparing experimental conditions (no conclusion or conclusion) was added in the second step, eudaimonic entertainment motivation added in the third step, and a condition x eudaimonic motivation interaction term was entered in the fourth step. Experimental condition did not emerge as a significant predictor of any of the persuasive outcomes, and thus, H2 was not supported.

Regarding H3, the analyses revealed two marginally significant, positive, effects of eudaimonic motivation on two persuasive outcomes. Eudaimonic motivation positively predicted

perceptions of organ donation benefits ($b = .15, p = .08$),⁴ and mistrust of doctors (i.e., the story-consistent perception that doctors may not do everything in their power to save registered organ donors) ($b = .18, p = .07$). To check if this could be attributed to people with greater eudaimonic entertainment use motivation having greater organ donation benefit perceptions and mistrust of doctors, separate analyses were conducted to whether eudaimonic motivation was correlated with the pre-test scores of organ donation benefits and mistrust of doctors. Eudaimonic motivation was positively correlated with organ donation benefits ($r = .25, p < .01$), indicating that people with higher eudaimonic motivation had greater organ donation benefit perceptions prior to seeing “Harvest.” However, pre-test doctor mistrust was not associated with eudaimonic motivation ($r = -.07, p = \text{n.s.}$) suggesting that the marginally significant positive relationship between eudaimonic motivation and post-test mistrust was a result of episode exposure. As shown in Table 7, this effect was also qualified by a marginally significant interaction, ($b = -.39, p = .06$).

⁴ Because this was the only main effect in the regression model, the results for the regression predicting organ donation benefits is not displayed.

Table 7

<i>Regression Predicting Doctor Mistrust</i>				
	b	SE	beta	R ² Change
Controls				.05+
Gender (0 = male)	.20	.31	.31	
Race (0 = black)	-.65*	.26	-.22	
Hedonic Motivation		.12		
Eudaimonic Motivation	.18+	.10	.15	.02+
Conclusion Condition (0 = No Conclusion)	-.24	.25	-.08	.01
Interaction				.02+
Eudaimonic Motivation x Conclusion Condition	-.39+	.21	-.56	
Adjusted R ² = .06				
<i>F</i> (6,120) = 2.53*				

+ $p < .10$, * $p < .05$

Note. b's in the table are unstandardized regression coefficients at entry and betas are standardized coefficients at entry.

To interpret the interaction, the regression was rerun after the continuous variables in the model were mean centered, and Preacher, Curran, and Bauer's (2002) multiple linear regression interaction tool was used to probe the effect. The online utility provided a plot of the simple slope of eudaimonic motivation on mistrust of doctors for those who were exposed to the supplemental conclusion and those who were not. The slope of eudaimonic motivation in the no conclusion condition was significant ($b = .35$, $p < .05$). That is, for participants *not* exposed to the supplemental conclusion, as eudaimonic motivation increased, mistrust of doctors also increased. There was no relationship between eudaimonic motivation and doctor mistrust in the conclusion condition ($b = -.02$, $p = \text{n.s.}$). In other words, as shown in Figure 5, the supplemental

conclusion appears to have had a beneficial effect, but only for people with higher eudaimonic motivation. No other main effects or interactions emerged in this set of analyses.

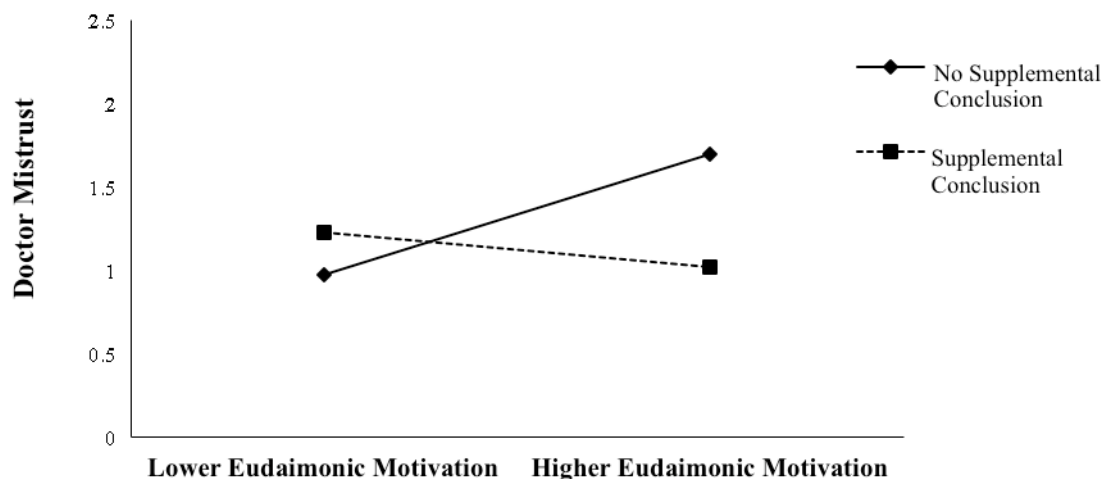


Figure 5. Doctor mistrust by conclusion condition and eudaimonic motivation

An additional behavioral intent outcome of import is participants' willingness to register as an organ donor. However, because there was a high percentage of participants who were already registered as organ donors (60.2%), a separate analysis including only non-registered participants was conducted to examine how exposure to the supplemental conclusion affected this persuasive outcome. A logistic regression analysis using the same model as the other analyses was constructed to examine if non-donors exposed to the supplemental conclusion were more likely than those who did not see the conclusion to click on the hyperlink to register as an organ donor at the end of the study. No main effects for conclusion condition emerged.

Additionally, the supplemental conclusion could have impacted the level of commitment to organ donation among people who were already registered as organ donors. Thus, a hierarchical regression analysis, consisting of the same model used to predict the other persuasive outcomes, was conducted to predict commitment to organ donation. Only participants

currently registered as organ donors were included in this analysis. Once again, there were no significant findings in this analysis.

4.5 Intended Elaboration and Eudaimonic Motivation

This study argued that the reason eudaimonic motivation would positively predict persuasive outcomes is that eudaimonic motivation would lead to greater intended elaboration of the subtext during viewing. Hence, H5 predicted that eudaimonic motivation would positively predict intended elaboration, and H6 predicted that intended elaboration would positively predict persuasive outcomes. H7 predicted that intended elaboration would be the mediator between eudaimonic motivation and persuasive outcomes. Additionally, H8 predicted that eudaimonic motivation would have a stronger, positive effect on intended elaboration in the no conclusion condition. A hierarchical regression analysis was performed to examine these predictions, as illustrated in Figure 4. The first step of the model was comprised of control variables (gender, race, and hedonic motivation), eudaimonic motivation was entered in the second step, followed by conclusion condition in the third step, and the eudaimonic motivation x conclusion condition interaction term in the final step.

As shown in Table 8, this analysis did not provide any evidence for H5's prediction; eudaimonic motivation was unrelated to intended elaboration. Additionally, there was not a relationship between intended elaboration and persuasive outcomes, so H6 was not confirmed. Because these predicted effects were not significant, it was not possible to conduct a mediation analysis examining the link between eudaimonic motivation, intended elaboration, and persuasive outcomes, so H7 was not supported. Finally, this analysis did not reveal evidence of an interaction between eudaimonic motivation and conclusion condition, as was predicted in H8.

Table 8

<i>Regression Predicting Intended Elaboration</i>				
	B	SE	beta	R ² Change
Controls				.04
Gender (0 = male)	-.23	.11	-.18	
Race (0 = black)	.01	.09	.01	
Hedonic Motivation	.06	.04	.13	.01
Eudaimonic Motivation	-.05	.04	.12	.01
Conclusion Condition (0 = No Conclusion)	.07	.09	.65	.01
Interaction Eudaimonic Motivation x Conclusion Condition	.04	.08	.17	
Adjusted R ² = .02				
F(6,120) = 1.44				

Note. b's in the table are unstandardized regression coefficients at entry and betas are standardized coefficients at entry.

To further explore the predicted relationships between eudaimonic motivation and intended elaboration, and the predicted interaction with the conclusion condition, intended elaboration and eudaimonic motivation were both dichotomized. The extent to which people are eudaimonically motivated and the amount of intended elaboration that they engage in occurs on a continuous range; these variables are not truly dichotomous. A negative consequence of this procedure is that dichotomization reduces the variables' variance, and thus reduces the information gleaned about individual differences in these measurements (MacCallum, Zhang,

Preacher, & Rucker, 2002). Hence, while findings from this supplemental analysis may inform future research endeavors, the results should be interpreted with some caution.

Intended elaboration was recoded into a variable that grouped those who reported intended elaboration and those who did not. Eudaimonic motivation was dichotomized using a median split, with participants classified into high and low eudaimonic groups. Using these recoded variables, a chi-square analysis was performed to determine if participants with high vs. low levels of eudaimonic motivation differed in whether they engaged in intended elaboration. The chi square was marginally significant, $\chi^2(1, N = 127) = 0.22, p = .09$, showing a pattern that was opposite of the one predicted in H5: low-eudaimonic participants were more likely to engage in intended elaboration (40.7%) than were high-eudaimonic participants (26.5%). Conclusion condition was added as a layer to examine whether the relationship between eudaimonic motivation and intended elaboration differed in the two conclusion conditions. A significant effect emerged for participants in the no conclusion condition, $\chi^2(1, N = 64) = 6.89, p < .01$, but not for those in the conclusion condition, $\chi^2(1, N = 63) = .01, p = \text{n.s.}$ Contrary to H8, in the no conclusion condition, intended elaboration was reported *less often* by participants with high eudaimonic motivation (15.2%) than by those with low eudaimonic motivation (45.2%), whereas in the conclusion condition, there was no difference (low eudaimonic motivation, 37.1%; high eudaimonic motivation, 35.7%). Evidently, the supplemental conclusion promoted intended elaboration for participants with high eudaimonic motivation. A visual representation of these results can be found in Figure 6.

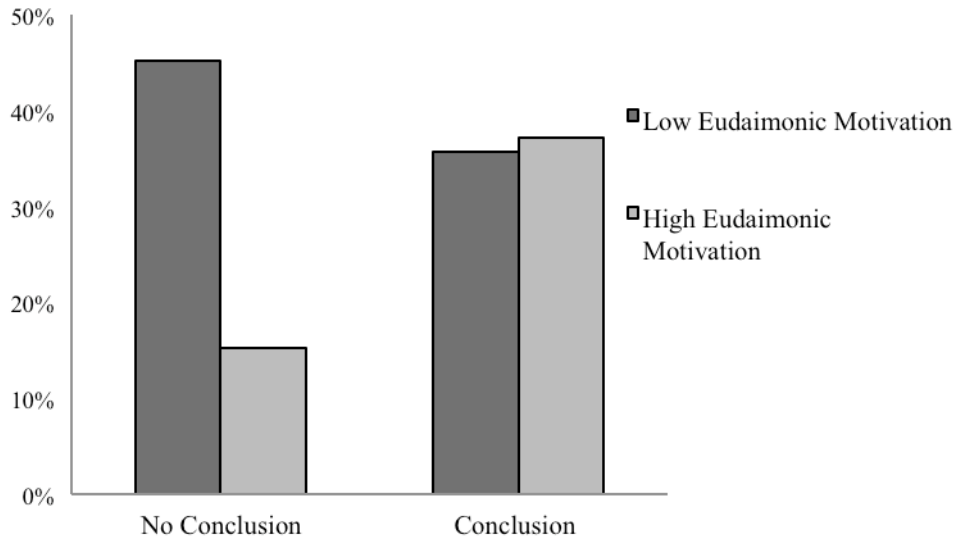


Figure 6. Percent of participants who engaged in intended elaboration

5. DISCUSSION

According to current theory on narrative persuasion, stories are persuasive because they camouflage persuasive subtexts and occupy people's focus, thereby reducing their ability to resist the message while they are engaging with the story (Green & Brock, 2000; Moyer-Gusé, 2008; Slater & Rouner, 2002). If people's attentional resources are occupied by the story during narrative exposure, this raises the question of whether story involvement also restricts their ability to generate intended elaboration about the subtext as well. Furthermore, if story absorption does, in fact, restrict people's ability to process the persuasive subtext, than E-E programs might benefit from the use of a supplemental conclusion to summarize important persuasive arguments in the subtext that might otherwise be missed (Slater, 2002a). This study sought to make significant contributions to both theory and practice of E-E by re-examining the compatibility of narrative transportation and total subtext processing, establishing intended elaboration as a predictor of narrative persuasion, experimentally investigating the persuasive effect of a supplemental conclusion, and shedding light on how eudaimonic motivation may affect all of these narrative persuasion processes.

Despite past research indicating the episode selected as the stimulus for this study affected change in audience members' organ donation-related beliefs, attitudes, and behavioral intentions (Morgan et al., 2009), in the current study the episode did not result in any persuasive outcomes related to organ donation. Compared to the control group, participants who watched the episode did have a stronger belief in the existence of a U.S. organ black market, but no other belief, attitudinal, or behavioral intention differences were observed. The lack of persuasion effects somewhat limited this study's ability to examine narrative persuasion processes. Nonetheless, several interesting findings with promise for future research emerged.

Transportation emerged as a marginally significant positive predictor of total subtext processing, suggesting that, contrary to the assumptions underlying current models of narrative persuasion, people might be able to follow the subtext and become absorbed in the narrative at the same time. Contrary to predictions, eudaimonic motivation negatively predicted the amount of total subtext processing participants engaged in.

Eudaimonic motivation was also a marginally significant, negative predictor of doctor mistrust. The supplemental conclusion did not have any main effects on beliefs, attitudes, or behavioral intentions, conclusion condition did moderate this effect of eudaimonic motivation on doctor mistrust. Specifically, eudaimonic motivation was positively associated with doctor mistrust in the no conclusion condition, but in the conclusion condition, there was no relationship between eudaimonic motivation and doctor mistrust.

There was also a marginally significant, negative relationship between eudaimonic motivation and intended elaboration. An examination of this relationship in the two conclusion conditions different conditions revealed that participants with high eudaimonic motivation who were not exposed to the conclusion condition were significantly *less* likely to engage in intended elaboration than participants with low eudaimonic motivation, but people with high and low eudaimonic motivation who saw the supplemental conclusion did not differ in how likely they were to engage in intended elaboration.

Combined, the analyses predicting intended elaboration and doctor mistrust suggest that intended elaboration could have played a role in decreasing doctor mistrust among participants with higher eudaimonic motivation, who saw the supplemental conclusion. In one part of the supplemental conclusion, the characters try to debunk the myth that doctors are untrustworthy. For people with high eudaimonic motivation who were exposed to this supplemental conclusion,

the likelihood of engaging in intended elaboration was not reduced, but their belief that doctors are untrustworthy was reduced. This provides some indirect evidence that supplement scene consistent intended may have been responsible for this effect. However notably, although intended elaboration was expected to mediate a relationship between eudaimonic motivation and persuasion, intended elaboration was unrelated to any of the persuasive outcomes in this study. Below, each of the findings are discussed in greater detail.

5.1 Transportation, Eudaimonic Motivation, and Subtext Processing

A primary objective of this research was to reexamine the well-accepted premise that transportation inhibits subtext processing. The E-ELM (Slater & Rouner, 2002) proposes that counterarguing, a specific type of subtext processing, is incompatible narrative transportation because transportation engages people's mental faculties, making them unable to generate arguments against the persuasive subtext. Though counterarguing is the E-ELM's primary focus, this proposition implies that transportation should restrict any subtext processing, be it counterarguments, intended elaboration, or non-valenced contemplations. This study proposed an alternative possibility to the inverse relationship between transportation and total subtext processing, arguing that in some cases, narrative transportation can actually enhance people's understanding of the persuasive message because it functions as a communication-relevant (or in this case, subtext-relevant) distraction. Buller's meta-analysis (1986) found that when people are asked to focus on a persuasive message and engage in distracting tasks that have nothing to do with the message (e.g., listening to a persuasive message and simultaneously counting the number of times an external noise occurs), participants' attention is fully divided and their ability to counterargue against the message can be reduced. But when people process a persuasive message and engage in a distraction task that is somewhat relevant to the message (e.g., listening

to a persuasive message and simultaneously contemplating the source's credibility), their ability to mentally multitask is greatly increased. In fact, Buller found instances where the presence of subtext-relevant distractions can sometimes enhance persuasion. Applied to narrative persuasion, Buller's findings suggest that distractions that have something to do with the subtext (such as a narrative) do not necessarily divert viewers' attention away from the subtext. Lending some support to this possibility, a marginally significant positive effect of transportation on total subtext processing was uncovered; the more transported viewers of "Harvest" were, the more total subtext processing they tended to engage in. Notably, this effect was only marginally significant and it does not provide any direct evidence for the contention that transportation enhances people's comprehension and involvement with the subtext. The marginal effect does, however, suggest that the E-ELM's proposition that transportation necessarily limits people's capacity to focus on stories' underlying messages may need to be examined more extensively for alternative possibilities. The implications for persuasion are unclear. A subsequent analysis found that transportation was unrelated to intended elaboration, which is the processing strategy that is thought to play an influential role in persuasion when counterarguments are reduced (Wright, 1973). Hence, this study is not able to offer any evidence that the positive relationship between transportation and subtext processing is conducive for persuasion.

If transportation is positively associated with total subtext processing in some instances, identifying the conditions under which this occurs (and under which conditions transportation might hinder subtext processing) is another important goal. This study investigated eudaimonic entertainment use motivation as a possible moderator of the relationship between transportation and subtext processing. The E-ELM is premised on the assumption that people consume stories for purely hedonic reasons (e.g., seeking enjoyment and pleasure), and as such, they may be

more motivated to become absorbed with the narrative and less motivated to engage with the subtext. But recent research has begun to uncover additional motivations for entertainment consumption, such as eudaimonic gratifications (Oliver & Bartsch, 2010), which may motivate narrative processing strategies that involve more subtext processing. Accordingly, it was expected that people with greater motivation to seek out poignancy and meaning in their entertainment experiences may put more effort into processing subtextual messages during narrative exposure. But surprisingly, eudaimonic motivation was a marginally significant negative predictor of total subtext processing.

Trait eudaimonic entertainment motivation has been shown to be associated with greater need for cognition and the tendency to engage in and appreciate effortful cognitive activity (Oliver & Raney, 2011), so the finding that people who have greater eudaimonic motivation engaged in less intended elaboration during viewing seems somewhat counter intuitive. But this finding may speak to how people who seek out eudaimonic experiences regard different types of entertainment. Perhaps those with eudaimonic motivations only engage in more contemplative subtext processing if they regard the story as a meaningful work and see the potential to derive eudaimonic gratifications. For the current study, the eudaimonic entertainment use motivation scale was adapted to better tap into the types of entertainment media gratifications participants tend to seek out. But those who selectively expose themselves to media that they perceive as being deeper or more meaningful may not consider the show *Numb3rs*, or crime shows in general, to be meaningful. A longstanding finding in media effects research is that people often selectively avoid or expose themselves to film and television shows based on how much effort they believe it will take to watch (Bryant & Zillmann, 1985). Presumably, people with eudaimonic motivation would be more likely to see out more cognitively or emotionally

demanding shows. However, they may actually be less likely to put in the effort to decode subtextual messages if they do not have reason to believe that the show has a meaningful message to convey.

5.2 Supplemental Conclusion and Eudaimonic Motivation Effects on Intended Elaboration

Although there have been no experimental investigations of epilogues or narrative conclusions that summarize persuasive messages, scholars have suggested that these types of supplemental conclusions help entertainment-education narratives achieve their persuasive objective (Singhal & Rogers, 1989; Slater, 2002a). Accordingly, participants who were exposed to the supplemental conclusion were expected to have more story-consistent beliefs, attitudes, and behaviors than those not exposed to the conclusion, but no direct differences between conclusion conditions were found.

Because eudaimonic motivation was initially expected to lead viewers to engage in increased processing of the persuasive subtext, eudaimonic motivation was also expected to be associated with more story-consistent beliefs, attitudes, and behavioral intentions. There was a marginally significant, positive relationship between eudaimonic motivation and two persuasive outcomes: mistrust of doctors, and perceptions of organ donation benefits. Interestingly, these effects occurred despite the aforementioned marginally significant inverse relationship between eudaimonic motivation and total subtext processing. In the case of organ donation benefit perceptions, one possible explanation is that people with greater eudaimonic tendencies were more likely to possess the story-consistent attitude before viewing the episode. However, the effect of eudaimonic motivation on mistrust of doctors interacted with conclusion condition. Specifically, in the no conclusion condition, higher eudaimonic motivation was associated with

greater doctor mistrust, whereas in the conclusion condition, eudaimonic motivation was not associated with mistrust.

A supplemental analysis revealed that eudaimonic motivation was not correlated with pre-exposure doctor mistrust, indicating that the positive association between mistrust and eudaimonic motivation observed in the no conclusion condition was not simply a baseline belief that was subsequently corrected for those exposed to the supplemental conclusion. Apparently, exposure to the episode was responsible for the greater doctor mistrust among those with higher eudaimonic motivation. This finding is somewhat unexpected because the doctor mistrust measure gauges people's perceptions that doctors will not work to save registered organ donors if they are dying, but the "Harvest" storyline did not directly make this argument. The episode did not depict doctors neglecting or causing any harm to registered organ donors in order to harvest organs. However, a prominent focus of the episode was on how dangerous the organ black market is for people who participate by selling their organs and, notably, a doctor was depicted as being the architect of the black market in the story. Perhaps people with high eudaimonic motivation were more heavily involved with narrative features (not subtextual messages), and this involvement indirectly influenced their perceptions of how doctors treat registered donors who are not involved with the black market.

The fact that eudaimonic motivation and doctor mistrust were positively associated in the no conclusion condition -- but not in the conclusion condition -- suggests that the supplemental conclusion played an important role in convincing people with higher eudaimonic motivations that doctors are not untrustworthy. In the supplemental conclusion, the myth of doctor mistrust was directly addressed and dispelled. In response to one character's hesitance to sign an organ donor card because he fears having his organs taken too soon, another character dismisses his

concern by saying “they don’t actually take (your organs) until you’re finished with them.” This explains why people with higher eudaimonic motivation appear to have benefited from exposure to the supplemental conclusion. Although the episode without the conclusion seems to have increased their sense of doctor mistrust, those who viewed the supplemental conclusion had the benefit of also being exposed to a concluding message designed to attenuate doctor mistrust.

Although this study cannot provide direct evidence that intended elaboration in response to the supplemental conclusion lead to decreased doctor mistrust among participants in this condition, the pattern of results suggests this was the case. Participants with high eudaimonic motivation who viewed the supplemental conclusion, were not less likely to engage in intended elaboration (as was the case with high eudaimonic participants in the no conclusion condition. Moreover, in the supplemental conclusion condition, eudaimonic motivation was also not associated increases in doctor mistrust. Combined, this pattern of findings suggests that the supplemental conclusion scene prompted people eudaimonically motivated people to generate intended elaborations, which in turn, repaired their trust of doctors.

Another possible explanation for the relationship between eudaimonic motivation and doctor mistrust in the absence of the supplemental conclusion is that other processes, such as cognitions about the narrative, character identification, or empathy, played a role in the no conclusion condition, eudaimonic motivation may have been associated with attention to the horror of the organ harvesting plot or the characters’ negative experiences with corrupt doctors and medical staff, and not necessarily to subtext evaluation. Although eudaimonic motivation was not associated with complex elaboration on the subtext, it may have been associated with meaningful character attachments, which, without exposure to the supplemental conclusion that dispelled the inaccuracies depicted in the drama, had a powerful impact on their beliefs.

5.3 Intended Elaboration and Eudaimonic Motivation

The E-ELM (Slater & Rouner, 2002) proposes that narrative persuasion occurs when people are so absorbed by the story that they lose their capacity to counterargue against the persuasive subtext. The model's account of narrative persuasion, however, does not describe how persuasion occurs when counterarguing has been reduced. This raises the question: If transportation acts as a Trojan horse to reduce people's resistance to a persuasive message, what are the mechanisms responsible for people's acceptance of the message while their defenses are down? As previously described, eudaimonic motivation predicted two of six persuasive outcomes, albeit with marginally significant results. Intended elaboration was predicted to mediate these effects, but surprisingly, this study was unable to confirm any relationship between intended elaboration and story-consistent beliefs, attitudes, or behavioral intentions.

Intended elaboration is a well-established antecedent of persuasive outcomes when counterarguing is restricted (Niederdeppe, Kim, et al., 2011; Wright, 1973), and in their statement of the E-ELM, Slater and Rouner (2002) even implies that positive elaboration on the persuasive subtext plays a role in narrative persuasion processes. The failure to confirm this relationship in the current research is perplexing. One reason the predicted relationship between intended elaboration and persuasion was not observed may be because, as previously noted, the episode was simply not very persuasive for the participants in this study. This possibility is discussed in more detail in the limitation section.

Analyses also did not initially reveal any overall relationship between eudaimonic motivation and intended elaboration. However, a marginally significant effect emerged when variables were dichotomized to examine if people with high and low eudaimonic motivation differed in whether or not they engaged in any intended elaboration. People with higher

eudaimonic motivation tended to engage in *less* intended elaboration than those with lower eudaimonic motivation. An additional analysis revealed that, among participants who did not see the conclusion, low eudaimonic participants were significantly more likely than high eudaimonic participants to engage in intended elaboration. The likelihood of engaging in intended elaboration did not differ between high and low eudaimonically motivated participants in the conclusion condition.

In a previous interpretation of findings, this study suggested that people who are predisposed to seek entertainment with meaningful messages may actually be less likely to process entertainment deeply if they do not expect there to be a subtext of any consequence. Although this means that they could be less likely to counterargue, it also means that they could be less likely to generate persuasion-conducive, intended elaborations. This could explain why, compared to people with low eudaimonic motivation, people with high eudaimonic motivation were less likely to report intended elaboration – but only if they did not see “Harvest’s” supplemental conclusion. The characters’ relatively overt summary of the persuasive message in the supplemental conclusion appears to have prompted those with more eudaimonic tendencies to process the subtext and generate intended elaboration at the end of the program. Presumably, prior to seeing the supplemental conclusion, eudaimonically motivated audience members were not contemplating the subtext, because in the absence of viewing the conclusion cue, people with high eudaimonic motivation engaged in relatively little intended elaboration. Only after exposure to the supplemental conclusion did those with high eudaimonic motivation produce intended elaboration on the subtext to the same extent as viewers with low eudaimonic motivation. Hence, although individuals with higher eudaimonic motivation were predicted to generate more, not less, intended elaboration without exposure to the conclusion, this finding is still in line with this

study's claim that conclusion scenes (and perhaps, epilogues) can function as a tool to persuade people who are less engaged with subtext processing during viewing. Slater and Rouner (2002) suggested that epilogues enhance persuasion by redirecting the attention of viewers who are not contemplating the subtext while viewing to rehearse stories' underlying messages. With regard to "Harvest," this appears to be the case. Evidently audience members with more eudaimonic motivation were considerably less likely to be following the subtext. For these viewers, exposure to the supplemental conclusion brought the persuasive message to the foreground of attention. This explanation of the supplemental conclusion's effect on processing is consistent with Slater's (2002a) proposal that conclusions to E-E programs such as epilogues facilitate persuasion because they give audience members an opportunity to reflect upon the main message when their attention is not entirely occupied by the rising action of the narrative. In the current case, people with higher eudaimonic motivation, who may not have perceived a crime drama as offering eudaimonic gratification, became more involved with the narrative, and less involved with the persuasive subtext until they were prompted to attend to the episode's underlying message when it was emphasized in the supplemental conclusion.

5.4 Theoretical Implications

A primary theoretical objective of this study was to identify the narrative processing mechanism responsible for persuasion in conditions where counterarguing is low, and to possibly provide some evidence for the existence of narrative processing paths to persuasion beyond counterarguing. The E-ELM (Slater & Rouner, 2002) considers counterarguing as a process that is necessarily incompatible with transportation, or narrative engagement, because focus on the narrative is thought to act as a distraction from the task of generating counterarguments against the subtext. But drawing from research on distraction and persuasion (Buller, 1986), this study

advanced the argument that the narrative functions as a communication-relevant distraction that does not necessarily divert audience attention away from persuasive messages, and may in some cases enhance involvement with the subtext. The finding that there was a marginally significant positive relationship between transportation and subtext processing suggests that these findings are applicable to narrative persuasion processes as well. Specifically, transportation and other forms of involvement with the narrative may distract people from focusing on the subtext, but not necessarily to the complete detriment of subtext processing and persuasion, because narrative absorption is a subtext-relevant task. To illustrate the difference between subtext-irrelevant and subtext-relevant distractions, consider the following examples. Viewers of a televised story's subtext who are asked to keep track of what other people in the room are doing while they are watching may have a difficult time attending to the subtext because of the subtext-irrelevant task they are performing. However, viewers who are asked to attend to the argument being constructed in the subtext and simultaneously attend to details like what the characters are doing, envisioning themselves in the story, or contemplating what they think will happen next in the show (a task mimicking narrative transportation) should find this request more manageable. The task of narrative focus does not permit an exclusive focus on the subtext, but it does completely rob the subtext of attention either. In this way, research on distraction and non-narrative persuasion can contribute to a more precise understanding of how narrative processing and subtext processing function together in narrative persuasion.

Results regarding the effects of the supplemental conclusion condition also contribute to narrative persuasion theory. The findings that people with high eudaimonic motivation were less likely than people with low eudaimonic motivation to engage in intended elaboration when they did not see the supplemental conclusion lends some support to Slater and Rouner's (2002)

contention that the persuasive subtext of a story can “fade into the background” so much so that viewers may not reflect on it until after the narrative experience (p. 176). When exposed to the supplemental conclusion, participants with high eudaimonic motivation were just as likely to engage in intended elaboration as those with low eudaimonic motivation. But in absence of the conclusion, it appeared that high eudaimonic participants were less likely to contemplate the underlying message compared to their low eudaimonic counterparts. This speaks to the potential value of supplemental conclusions as a tool for bringing the intended message to the foreground so that audience members can catch it. The finding also corroborates research on developmental psychology and narrative comprehension, as well as non-narrative persuasion, which has demonstrated that explicit messages about subtextual messages can enhance people’s understanding of the subtext (Collins et al., 1981; Hovland & Mandell, 1952; Mares, 2006, 2007). But it also raises a question that has been broached before: without a supplemental conclusion, are some audience members at risk of missing the underlying message entirely (Kreuter et al., 2007)? There was no evidence in the current study to suggest that people with high eudaimonic motivation who were not exposed to the supplemental conclusion were less persuaded by the episode, but the episode’s general lack of persuasive influence makes this question a difficult one to examine. And so the implications of not having a supplemental conclusion for people who did not engage in intended elaboration are a fruitful topic for future research.

Another interesting theoretical insight gleaned from the study’s findings is that trait eudaimonic entertainment use motivation does not necessarily predict how motivated people will be to process the meaning of a story’s subtext. Measures of dispositions towards entertainment media use may be appropriate for gauging entertainment preferences, but they appear to have

less usefulness as a gauge of ambition to process entertainment content for eudaimonic gratifications.

The findings also underscore the need to understand how other entertainment use motivations affect different types of narrative processing strategies. This study has operated under the assumption that, like need for cognition, eudaimonic motivation should lead to more in depth cognitive processing of a story's intended meanings and real-world implications, but this was not reflected in the results. Additional research could still find that eudaimonic motivation is associated with more critical contemplation of the subtext in response to other types of media, but future studies of eudaimonic motivation and narrative persuasion should also look more carefully at affective processes, such as character attachments like identification and parasocial interaction (Moyer-Gusé, 2008). Oliver (2008) argued that audiences are drawn to complex, sad, or tragic entertainment fare because they offer eudaimonic gratifications such as "greater insight, self-reflection, or contemplations of poignancy or meaningfulness" (p. 42). But Oliver also demonstrated that this type of media content can offer emotional eudaimonic gratifications too, such as feelings of appreciation, warmth, or sympathy. Conceivably, people with eudaimonic motivation may recognize that these gratifications are easily attainable through deep emotional involvement with the story and its characters and adjust their focus accordingly. That is, rather than leading people to contemplate narrative subtexts, eudaimonic motivation may instead encourage emotional involvement with the narrative. Additional research is needed to construct a more thorough understanding of how eudaimonic motivation affects both cognitive and affective processes in narrative persuasion.

Finally, this study raises important questions about the role of expectations for entertainment media in determining narrative processing. As previously discussed, Slater (1997,

2002b) argued that it is the goals audiences have for different types of media that influence message processing strategies. The E-ELM builds upon this claim by proposing that the unique motivations for consuming narrative entertainment media determine people's narrative processing strategy: namely, transportation into the narrative. However, different processing strategies may be applied to different types of entertainment media. A one-size-fits-all model of entertainment use goals may be too broad to capture the varying effects on narrative processing that may be associated with different genres of stories. To this point, crime dramas like *Numb3rs* are not renowned for conveying profound, meaningful or even classically educational messages. "Harvest" was selected for this study precisely because it was an exception to this rule, having had a persuasive health message deliberately embedded in the narrative (Movius et al., 2007). People with eudaimonic motivation may be more motivated to contemplate the underlying themes in shows like *The Wire*, *Battlestar Galactica*, or *Breaking Bad*, or in TV programs or films that have been critically acclaimed for their thoughtful plots or deep character studies.

Genres could also function as prompts for different types of processing. For instance, people with eudaimonic motivation may automatically engage in more in-depth subtext processing of works they recognize as science fiction, if they are familiar with the regular use of metaphoric storylines in this genre. Shows belonging to genres like crime drama or perhaps sitcoms, on the other hand, may prompt eudaimonically motivated viewers to put little effort into engaging with the subtext.

Underlying these possibilities is a more fundamental question about what structural characteristics of media are responsible for activating eudaimonic motivation, or cueing people with eudaimonic motivation to attend to the deeper meanings of stories. This study has suggested that supplemental conclusions are at least one type of structural addition to narratives that can

initiate subtext processing among eudaimonically motivated audience members, but how the supplemental conclusion alerted viewers to the subtext is unknown. Many television shows conclude with a final scene, following the resolution of conflict, as a way of providing closure. But the fact that the supplemental scene in “Harvest” spiked eudaimonically motivated viewers’ attention to the persuasive message suggests that this conclusion stood out for some reason. Perhaps the conclusion was longer than most, or the type dialogue between the characters made the persuasive intent obvious. Additional survey and experimental research will be needed to pinpoint the qualities of supplemental conclusions that are capable of prompting subtext processing.

A broader theoretical goal is to understand the different structural mechanisms within the narrative itself that encourage subtext processing among eudaimonically motivated viewers. For instance, narrative complexity may be a trigger for subtext processing. Johnson (2005) argued that the complexity of different television narratives has increased over time, and as a consequence, audiences are required to apply more of their cognitive resources to follow television storylines. As evidence of television narratives’ growing complexity, he points to the reduction of “flashing arrows” designed to help audiences follow the plot. According to Johnson, formulaic narrative routines or foreshadowing cues remove the mystery from viewing and “reduce the amount of analytic work you need to make sense of a story. All you have to do is follow the arrows” (p. 74). Stories that use more flashing arrows require less concentration from the audience. Notably, *Numb3rs* follows the plot conventions of many other modern police procedural shows. In a typical *Numb3rs* plot, a crime first occurs, the police team investigates several leads, and in the end, the crime is eventually solved. If this plot formula worked as a “flashing arrow” for eudaimonically motivated viewers, who may be accustomed to viewing

more sophisticated plots on television, they may have seen no reason to concentrate intently on the story. Theoretically, this possibility suggests that structural features of the narrative might be able to turn on, or turn off, subtext-level processing in some people. An equally interesting possibility is that people's consumption of complex narratives make them drawn to additional complexity, and perhaps less likely to scrutinize storylines that do not match the level of narrative sophistication that they are accustomed to. Future research should consider each of these possibilities.

5.5 Practical Implications

On the most basic level, the discovery that eudaimonic motivation can have different effects on subtext processing highlights the need for entertainment-education message designers to consider audience disposition toward entertainment media. Additional research is needed to investigate why people who are generally inclined to seek out eudaimonic content may not be motivated to process content that they perceive as not being eudaimonic. But this study suggests that expectations may be a key factor, and one that message designers should consider. In the current study individuals with low eudaimonic motivation appeared to engage more fully with the subtext. This finding may be specific to the type of television show or, it may have more general applications across different types of programming. But most notably, those with higher eudaimonic motivations seemed to require the cue of the message being reiterated in the supplemental conclusion to become involved with the persuasive message. This finding could indicate that people who were more eudaimonically motivated were more sensitive to the story's complexity, and therefore benefited from a conclusion that helped to eliminate some of the ambiguity in the underlying message regarding whether becoming an organ donor is safe or not. The outcome could also suggest that, at least in some contexts (or for some genres), these

individuals may need some sort of prompt to bring their attention to the eudaimonic potential of a program. Presumably, most media consumers are well accustomed to letting their assumptions about the types of experiences that media provide guide their entertainment decisions. In fact, the term “Netflix Guilt” was coined by the popular press to describe the condition afflicting millions of subscribers to the movie rental service in which people voluntarily rent films that are critically acclaimed, cultured, poignant, and/or emotionally demanding, but fail to ever watch them because they are expecting a cognitively or emotionally taxing experience (Fashingbauer Cooper, 2011; Stone, 2006). One would expect people with higher eudaimonic motivations to be more likely to select, and eventually watch, these types of films. Furthermore, they may even engage in more in-depth subtext processing because they expect the films to offer eudaimonic gratifications. Regardless of whether eudaimonically oriented people were more attuned to the complexities of the subtext, or they had fewer expectations for the story’s eudaimonic gratifications, this research indicates that these individuals may benefit from a supplemental conclusion that eliminates subtext ambiguity and alerts viewers to the potential for a meaningful viewing experience.

This is the first known entertainment-education study to investigate the effects of a supplemental conclusion that is integrated into the narrative. From a practical design perspective, the findings of this study provide some preliminary evidence that supplemental conclusions that reiterate the persuasive subtext message after the narrative climax may have the potential to be an asset to entertainment-education programs. This research indicates that this type of supplemental conclusion could be an asset if there is a concern that the target audience may not be motivated or cued to process the subtext otherwise. But supplemental conclusions have the potential to aid narrative persuasion in other ways too, such as helping viewers draw the intended

conclusion from a story when it offers ambiguous or possibly conflicting perspectives. Unfortunately, there was no evidence that the supplemental conclusion scene was actually persuasive. The findings suggest only that it may have brought the subtext to the foreground of people's attention. Still, the results do lend some support to Slater's (2002a) contention that the success of entertainment-education programming may be dependent on these scenes, because they direct people's attention to the recommendations they are expected to adopt. People may vary in how closely they follow the subtextual messages of a story, but those who do not (in this case, people with high eudaimonic motivations), may require a supplemental conclusion to reiterate the persuasive subtext.

5.6 Limitations

This study has several limitations. First, most of the findings did not reach significance relative to the standard alpha level of .05, and thus should be interpreted with caution. Replicating this study with a larger sample size may improve confidence in the interpretations based on these results.

Use of a relatively homogenous sample also limits the generalizability of these findings. This study relied on a convenience sample of college students who are younger and generally more educated than the broader population. Undergraduates may be more accustomed to processing subtextual messages, have greater cognitive capacity, and they could also be more prone to engaging in multitasking during viewing. Any one of these factors could have had unique effects on the narrative processing strategies they chose to use. As such, these findings may not be applicable to other groups.

The possibility of self-selection bias also interferes with the ability of these findings to be generalized. Students were offered course credit in exchange for participation, and only students

who completed the first survey on time and showed up for the lab session were included in the final sample. Accordingly,

Furthermore, because the student participants in this study were not regular viewers of *Numb3rs*, or the target audience for the show, their reactions may not reflect the responses of more typical viewers. One reason the “Harvest” episode of *Numb3rs* was selected for the current study was because Morgan et al. (2009) found evidence that exposure to the episode had an effect on a number of persuasive outcomes. However, notably, the average age of the sample for their study was slightly older (29), and survey data were collected online, in fan websites. Hence, compared to participants in the current study, respondents to Morgan et al.’s survey were most likely regular, intended viewers of *Numb3rs*, who enjoyed the television show enough to visit the fan website. For this reason, it stands to reason that, compared to participants in the current study, they were probably more familiar with and favorably disposed to the characters, and perhaps even more amenable to the episode’s persuasive message. These notable differences in sample characteristics could explain why “Harvest” had persuasive effects in one study but not the other. They also highlight the importance of studying differences in how fans and new audiences process entertainment content in the future.

This research is also limited in its ability to shed light on narrative persuasion because, by and large, the audience appeared to already be supportive of organ donation. Over half of the sample for this study had already registered as organ donors. This may explain why, with the exception of belief in an organ black market in the U.S., exposure to the episode did not have any effect on pro-donation persuasive outcomes. A large proportion of the sample appears to have already been convinced of the importance of organ donation. As Dal Cin et al. (2004) point out, stories’ primary persuasive asset is their ability to camouflage *extreme* arguments so that

audiences do not recognize their extremity. Research that investigates narrative persuasion effects in response to more polarizing subtexts may yield more robust results.

The study's external validity was also compromised by conducting the experiment in a tightly controlled, computer lab classroom setting. Participants watched the episode on a computer using headphones, and they were unable to engage in other activities, adjust viewing settings on their computer, or interact with others. These measures helped to maintain experimental control, but also created a relatively artificial viewing situation for participants. Therefore the findings from this study may not generalize to more natural viewing situations. Outside of the lab setting, for instance, people have the opportunity to make themselves more comfortable while viewing entertainment. Also, it is not uncommon for viewers to engage in many different tasks during viewing, such as talking to friends, surfing the Internet, or cooking dinner. Any number of activities that happen when people consume entertainment media in more natural settings could affect how they attend to and receive persuasive messages embedded in narratives. For instance, dialogue between audience members could potentially help viewers members tap into different subtextual messages, or it could distract viewers from the intended message. For this reason, research on narrative persuasion processing would benefit greatly from naturalistic studies that account for different message-relevant and irrelevant distractions that occur when people consume stories.

The results of this study also may not generalize well to other types of television shows or films. One strength of this study is that it examined audience processing of a real, professionally designed, entertainment-education program. However, as discussed previously, different shows and different genres may prompt different types of processing strategies. More research is needed to understand how well the current findings apply to other entertainment education

programs.

One strength of this study is that it employed a thought-listing technique to gauge participants' narrative processing strategies. This measurement permitted an analysis of authentic, cognitively accessible thoughts viewers had while watching a persuasive television episode. However, to some extent, the thought-listing measurements of narrative and subtext processing also limit this study's ability to draw concrete conclusions about psychological processing in narrative persuasion. Participants' ability to report thoughts and feelings they had while viewing a television program that lasted over 40 minutes may be limited. As such, the reported thoughts may provide a better indicator of participants' most recent thoughts, rather than their most frequent thoughts. The use of both thought-listing tasks as well as close-ended scales that ask participants to assess how frequently they found themselves thinking about different aspects of a story may paint a clearer picture of how prominent different processing strategies were during viewing. But care should be taken to ensure that these indexes are precise enough to detect the nuances in the actual processing strategies audiences use while they are engaged with a story. This is particularly true of measurements of subtext processing that could potentially be confused with measures of narrative processing (Moyer-Gusé & Nabi, 2010).

Finally, the focus on trait motivation, as opposed to a state measure of processing strategy limits this study's ability to advance claims related to how motivation affects narrative processing. The weak or nonsignificant associations among eudaimonic motivation, processing measures, and persuasive outcomes suggest that dispositional entertainment use motivations may not be the best indicators of how people process entertainment media. Participants' overall eudaimonic disposition may affect media selection, but does not necessarily determine whether they adopt eudaimonic processing strategies (e.g., scrutinizing the subtext; relating the

persuasive message to real-life scenarios) while they are actually engaging with entertainment content. The development and use of a reliable eudaimonic processing scale would permit a more precise investigation into how entertainment use motivation at the time of viewing affects narrative processing outcomes.

5.7 Future Research

This study opens the door for several lines of future research. First, this is the first known study to find some indication that transportation has a positive, though marginally significant, effect on total subtext processing. Because the trend did not reach significance, it will be important to confirm it in future studies. Should it prove to be a robust effect, it will have important implications for narrative persuasion theory, because it suggests that persuasion via narrative transportation could be possible even if audience members are simultaneously contemplating the subtext, provided of course, the net valence of subtext processing is positive. Because the episode stimulus in the current study did not yield many persuasive outcomes, this research is limited in its ability to draw conclusions about how the co-occurrence of transportation and total subtext processing might affect persuasive outcomes. Studying these processes in response to a story that results in more persuasion should be a high priority for future studies on narrative processing.

Additionally, more research is needed to identify moderators of narrative processing strategies. Drawing from Slater's (1997) contention that entertainment use motivation can determine the type of psychological processing audience members engage in, this study focused on eudaimonic entertainment use motivations as a source of differences in how people process narratives. But many other factors could play a role in predicting peoples' narrative processing strategies, and additional research is needed to identify these variables. Factors that have been

established as moderators of non-narrative persuasive message processing hold particular promise for being able to influence narrative processing. For instance, research on the original elaboration likelihood model has shown that variables such as issue involvement can affect the extent to which individuals engage in message elaboration (e.g., Petty, Cacioppo, & Goldman, 1981). Issue involvement was initially dismissed by the E-ELM as not playing an important role in narrative persuasion (Slater & Rouner, 2002), but research is emerging that provides some preliminary evidence that just as it enhances message elaboration and persuasion in response to non-narrative messages (Petty & Cacioppo, 1986), it also has the potential to enhance processes that are conducive to narrative persuasion (Kim, Moon, & Feeley, 2011).

More research is also needed to understand how people develop expectations for different stories that could influence narrative processing strategies. The unexpected finding that people high eudaimonic motivation was associated with less subtext processing, including intended elaboration, leads to the speculation that people who seek out eudaimonic entertainment gratifications could be more likely to engage in subtext processing if they are engaged in a story that they consider meaningful. However, little is understood about what cues audience members might use to make assessments of a story's meaningfulness or potential to yield eudaimonic gratifications. Past experience with different stories or genres may help people decide how much effortful subtext processing they will engage in. Interpersonal references, movie previews, and other mass media sources such as film critic reviews and advertisements also could play a role (Austin, 1982; d'Astous & Touil, 1999; Farber & O'Guinn, 1984). Understanding more about how people with eudaimonic dispositions toward entertainment make decisions about which ones they engage with on a subtextual level will help entertainment-education designers integrate the appropriate cues into their programming.

A relatively neglected area in narrative persuasion research that deserves more attention is the specific role of intended elaboration and counterarguments that are directed toward the narrative—rather than subtextual aspects of stories. This study focused rather exclusively on the effects of subtext processing, especially intended elaboration, and it is unclear what role different types of narrative processing may play in persuasion. As previously discussed, Moyer-Gusé and Nabi (2010) found a positive link between counterarguments and persuasion in response to a program with a safe sex message, but they suggested that effect may have occurred because participants were counterarguing against the characters' risky sexual behaviors. In this case, the counterarguing would have been consistent with the subtext. Moreover, this subtext-consistent processing would have occurred on a narrative—rather than subtextual—level, and consistent with the E-ELM, participants could have been persuaded even if their awareness of the persuasive subtext faded to the background. Little is understood about narrative and subtext processing can work together or inhibit each other's influence in narrative persuasion. Traditional entertainment-education theories, such as social cognitive theory (Bandura, 2003) may provide some insight into how these narrative processing persuasion effects occur when individuals respond to story or character attributes. These types of responses could potentially have a greater impact on persuasive outcomes than cognitions and emotions that are purely subtext-focused. Gaining a better understanding of their role in the narrative persuasion process also may shed light on questions raised in the current study, such as how persuasion can occur when people do not process, or are unaware of, the persuasive subtext.

Another fruitful area for additional research is the persuasive or counter persuasive effects of supplemental conclusions in entertainment-education programs. Notably, although the supplemental conclusion was presented as a part of the narrative in the current study, the

manipulation check showed that participants exposed to the supplemental conclusion remembered seeing it, and additionally, compared to the no conclusion group, they perceived the episode as having a stronger persuasive intent. Yet despite greater perception of persuasive intent in the conclusion condition, there was no evidence that participants resisted the persuasive messages in anyway. But the study of persuasive endings is young, and little is understood about audience perceptions of these scenes, or how their perceptions affect their receptivity to persuasive messages. The supplemental conclusion scene tested in this study was built into the narrative, and acted out by the characters. Presumably this format is more acceptable to U.S. viewers than the epilogue format frequently used in international entertainment education programs, in which actors explain the episode's message, out of character, after the episode has concluded (Singhal & Rogers, 1989). Conclusions that are too obvious in their persuasive intent run the risk of triggering boomerang effects. However, U.S. public service announcements that are similar in nature to epilogues in international programs have been successfully used in the past to promote health outcomes (Klinge & Strzyzewski, 1994), suggesting that U.S. audiences do have some tolerance for overtly persuasive conclusions. Determining the boundaries and limitations of this tolerance will be an important objective for future research on entertainment-education.

The role of character involvement, particularly different types of character identification, also should be considered in future research to develop a more complete model of narrative persuasion. Entertainment-education research has found that feeling similar to characters, or adopting characters' perspective while viewing, can increase self-efficacy and positively impact story-consistent attitude and behavioral intentions (Green, Brock, & Kaufman, 2004; Sood, 2002; Wilkin, Valente, Murphy, Cody, Huang, & Beck, 2007). The E-ELM (Slater & Rouner,

2002) posits that identification and transportation function similarly in narrative persuasion. This implies that identification with characters could reduce counterarguing and perhaps increase processing strategies such as intended elaboration that are more conducive to persuasion, but the processing mechanisms that mediate identification's effect on persuasion still need to be investigated.

The effects of story format on processing also should be a focus of future studies on narrative persuasion. Janicke and Raney (2012) recently argued that the influence of story processing strategies such as transportation on persuasion may differ depending on whether the story is in a written format or in an audiovisual format, like movies or television shows. Transportation into written stories requires that readers construct mental images of the story, which in turn, makes it easier to store story-relevant details in memory (Green & Brock, 2002). Because film and television audiences do not have to invest cognitive resources in developing mental images of audiovisual content (which have already been provided), Janicke and Raney argue that transportation might not be a prerequisite for persuasion in these cases. This claim has yet to be examined empirically. However, if their assertion is correct, then future research may reveal that different types of subtext processing and transportation are more compatible processes during exposure to audiovisual narratives, compared to written narratives.

The role of distraction in narrative persuasion processes also provides fertile ground for future research. This study integrated research on distraction and non-narrative persuasion to suggest that some distractions away from a persuasive message can actually facilitate persuasion, provided that the distraction is still relevant to the message (Buller, 1986). This study argued that the same should be true in narrative persuasion, and that distractions from a persuasive subtext are not necessarily detrimental to persuasion. This study focused on narrative transportation as a

message relevant distraction, but there are many other message-relevant distractions that may actually enhance viewer involvement with persuasive messages. For instance, audience coviewing and story-relevant dialogue may divide audience attention, and yet still facilitate persuasion (provided the dialogue is story-consistent). Multitasking with other media also has the potential to enhance persuasive story effects. Viewers who engage with social networking sites, or look up story-relevant details while they are watching a television program could be distracted from the persuasive message, or their understanding and absorption of the subtext could be enhanced. Much more research is needed to understand how narrative persuasion functions in distracting situations, and what contexts are best to maximize persuasive outcomes.

5.8 Conclusion

The present study provided preliminary evidence that transportation might not be incompatible with narrative subtext processing during story exposure, as suggested by existing models of narrative persuasion. However, the implications of a positive (although marginally significant) relationship between narrative transportation and subtext processing for the process of persuasion are unclear. Additional research is needed to examine how the co-occurrence of transportation and subtext processing might affect persuasive outcomes in response to E-E programs that have a greater impact on people's beliefs, attitudes, or behavioral intentions.

Unexpectedly, eudaimonic motivation negatively predicted subtext processing; those who had a higher trait-preference for thoughtful, poignant, meaningful entertainment media were less likely to report engaging in subtext processing. Future research will need to investigate the reasons for this surprising result, but participants' expectations for entertainment media gratifications may help explain this finding. Specifically, people with higher eudaimonic motivation may engage in effortful subtext processing primarily if they expect a media offering

to provide a thoughtful experience. Eudaimonically motivated participants in the current study may not have regarded the crime drama *Numb3rs* as offering much meaning, and thus they were not motivated to process the subtext.

No main effects were discovered for the inclusion of a supplemental conclusion on any processing or persuasion outcomes. However there was evidence that the effect of eudaimonic motivation on intended elaboration and on doctor mistrust was moderated by supplemental conclusion condition. The pattern was the same for both effects. Among participants who did *not* see the supplemental conclusion, those with high eudaimonic motivation were less likely to engage in intended elaboration, compared to those with low eudaimonic motivation. Also in the no conclusion condition, eudaimonic motivation was positively associated with the belief that doctors are untrustworthy. Essentially, these results suggest that, in the absence of the supplement scene, the story had a greater impact on people with higher eudaimonic motivation, and that they were less likely to engage in persuasion-conducive intended elaboration (compared to those with low eudaimonic motivation). These findings may indicate that other narrative processes, such as character involvement, may be responsible for these persuasive outcomes. Future research should consider how people with eudaimonic entertainment use motivations seek eudaimonic gratifications by engaging with different aspects of narratives.

Surprisingly, intended elaboration did not predict persuasive outcomes as expected. Given the positive role that intended elaboration has played in persuasion in past research, this result is perplexing. However, this finding may be attributable to the fact that exposure to the episode examined in this study was associated with only one persuasive outcome (belief in a U.S organ black market). Possibly because participants already had relatively positive attitudes toward organ donation, exposure to the episode did not result in any measureable change in

attitudes or behavioral intentions related to organ donation. Consequently, it was not possible to extensively examine the role that intended elaboration played in the persuasive process.

Overall, the findings indicate that transportation and subtext processing can potentially coexist and that people's level of eudaimonic motivation can affect the extent to which they engage in subtext processing during narrative engagement. Furthermore, the inclusion of a supplemental conclusion that highlights the important points of the persuasive subtext may be a useful way to ensure that viewers who were not following the persuasive subtext closely get the message at the end. Many of the findings were marginally significant and therefore should be interpreted with caution. Nonetheless, this study should pave the way for many enlightening lines of future research that will expand upon and refine current models of narrative persuasion.

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APPENDICES

Appendix A: Complete Scales Included in Study

Entertainment Use Motivations (Oliver & Raney, 2011)
(0 = Disagree Strongly; 6 = Agree Strongly)

Eudaimonia

- I often seek out media that challenge my way of seeing the world.
- I regularly choose media that I think will make me more reflective.
- My favorite media are the ones that focus on meaningful human conditions.
- I am most moved by media that are about people's search for greater understanding in life.
- My favorite kinds of media are ones that make me think.
- I like often seek out media that have profound meanings or messages to convey.

Hedonism

- It's most important to me that I have fun when consuming media
- Media that make me laugh are among my favorites
- I find that even simple media can be enjoyable as long as they are fun
- I often seek out media that may be considered "silly" or "shallow" if they can make me laugh and have a good time
- For me, the best media are the ones that are entertaining
- My favorite kinds of media are happy and positive

Transportation (Green & Brock, 2000)
(0 = Disagree Strongly; 6 = Agree Strongly)

- While I was watching the episode I could easily picture the events taking place.
- While watching the episode, activity going on in the room around me was on my mind (R)
- I could picture myself in the scene of the events depicted in the episode.
- I was mentally involved in the episode while watching it.
- After finishing the episode, I found it easy to put it out of my mind. (R)
- I wanted to learn how the episode ends.
- The episode affected me emotionally.
- I found myself thinking of ways the events in the episode could have turned out differently.
- I found my mind wandering while watching the episode (R)
- The events in the episode are relevant to my everyday life.
- The events in the episode have changed my life.

Perceived Persuasiveness (Moyer-Gusé & Nabi, 2010)

To what extent do you believe the show was designed to be entertaining or persuasive?
(0 = entertaining; 3 = equally entertaining and persuasive; 6 = persuasive)

Episode Recall

- The ambulance driver survives after the car crash.
- Don (an FBI agent) is told by his father about a friend who needed an organ transplant but could not find a match.
- The FBI agents eventually find Prita, the sister, alive but she has already had her organs removed.
- The main characters discuss organ donation registration while having dinner together
- In the very last scene of the episode, Santi is reunited with her sister

Commitment to Organ Donation Decision

- I feel proud about my decision to donate
- I would recommend the decision to become an organ donor to other people
- I always want to be registered as an organ donor
- I would not advise someone else to register as an organ donor (R)
- I regret my decision to donate (R)
- I feel very committed to my decision to become an organ donor

Willingness to Communicate (Morgan & Miller, 2002; Smith et al., 2004)
(0 = Disagree Strongly; 6 = Agree Strongly)

- I would be comfortable talking to my family about becoming an organ donor
- I know how to talk to my family about my decision to be (or not to be) an organ donor
- I am willing to talk to my family about my decision to become an organ donor.
- I am willing to ask a family member to witness my signature on an organ donor card.

Attitude Toward Others Becoming Organ Donors (Morgan et al., 2008)
(0 = Disagree Strongly; 6 = Agree Strongly)

- More people should sign up to become organ donors.
- I would encourage others to sign up to become organ donors.
- I would support other people if they decided to become organ donors.
- I would support other people if they decided *not* to become organ donors.
- I am willing to try to convince other people that they should become organ donors.

Organ Donation Beliefs (Morgan et al., 2009)
(0 = Disagree Strongly; 6 = Agree Strongly)

- The rich, famous, and/or well-connected can pay their way for higher priority on a transplant waiting list or “pull strings” to get a transplant faster
- A hospital’s transplant committee determines priority of patients on the waiting list at that hospital
- An organ is matched to a recipient through a national computerized system
- It is possible for a brain dead person to recover from his/her injuries
- Doctors work just as hard to save a patient who is an organ donor as one who is not.

- Organs can be bought and sold on the black market in the U.S.
- Doctors might let me die if they know I am an organ donor.
- People who choose to donate a family member's organs end up paying extra medical bills
- Doctors have personal pull in deciding which patient gets an organ transplant.

Perceived Benefits of Donation (Morgan et al., 2008)

(0 = Disagree Strongly; 6 = Agree Strongly)

- Organ donors are heroic because they save lives.
- Donating organs would allow part of me to live after I die.
- Organ donation allows something positive to come out of a person's death.
- Organ donation helps to bring meaning to the death of a loved one.

Appendix B: Pre-Exposure Questionnaire

First, we have some questions about your media preferences.

1. How many hours of television do you watch on a typical weekday?
2. How many hours of television do you watch on a typical weekend day?

Next, please estimate how often you watch the following types of television (never, sometimes, often)

3. Reality TV	Never	Sometimes	Often
4. News	Never	Sometimes	Often
5. Dramas	Never	Sometimes	Often
6. Medical Dramas	Never	Sometimes	Often
7. Crime Dramas	Never	Sometimes	Often
8. Science Fiction or Fantasy	Never	Sometimes	Often
9. Sitcoms	Never	Sometimes	Often
10. Nature	Never	Sometimes	Often
11. Sports	Never	Sometimes	Often
12. Game Shows	Never	Sometimes	Often
13. Soap Operas	Never	Sometimes	Often

For these next questions, think about the types of media (e.g., movies, TV, video games, books, etc.) that you prefer and indicate the extent to which you agree or disagree that each of the statements is true of you (0 = Disagree Strongly; 6 = Agree Strongly).

14. Media that make me laugh are among my favorites.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

15. I often seek out media that challenge my way of seeing the world.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

16. I regularly choose media that I think will make me more reflective.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

17. It's most important to me that I have fun when consuming media.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

18. My favorite kinds of media are happy and positive.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

19. I often seek out media that focus on meaningful human conditions.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

20. I find that even simple media can be enjoyable as long as they are fun.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

21. I am most moved by media that are about people's search for greater understanding in life.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

22. My favorite media are the ones that make me think.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

23. I often seek out media that may be considered "silly" or "shallow" if they can make me laugh and have a good time.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

24. I often seek out media that have profound meanings or messages to convey.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

25. For me, the best media are the ones that are entertaining.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

For this next section, we want to ask you about your opinion on some medical procedures. Below are statements or beliefs about different medical procedures. There are no right or wrong answers. Please read each one and decide the extent to which you agree or disagree (0 = Disagree Strongly; 6 = Agree Strongly).

1. It is possible for a brain dead person to recover from his/her injuries.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

2. It makes sense to have minor cosmetic surgery rather than spending years feeling bad about your looks.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

3. The risk of a few adverse reactions to vaccines is ok if the majority of the population is protected.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

4. I would encourage others to sign up to become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

5. Doctors work just as hard to save a patient who is an organ donor as one who is not.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

6. If I knew there would be no pain or side effects, I would consider trying cosmetic surgery

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

7. Organ donors are heroic because they save lives.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

8. Vaccines have not substantially changed the incidence of any major infectious disease

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

9. Organs can be bought and sold on the black market in the U.S.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

10. Vaccines actually cause more disease than they prevent.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

11. In the future, I could end up having cosmetic surgery.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

12. Cosmetic surgery is a good thing because it can help people feel better about themselves

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

13. I would encourage others to sign up to become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

14. I am in favor of vaccination in general.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

15. I would consider having cosmetic surgery if my partner thought it was a good idea.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

16. Doctors might let me die if they know I am an organ donor.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

17. The risk of vaccines outweighs their usefulness in preventing the disease.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

18. Donating organs would allow part of me to live after I die.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

19. People who are unhappy with their physical appearance should consider cosmetic surgery.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

20. I would support other people if they decided to become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

21. I would think about having cosmetic surgery in order to keep looking young.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

22. Organ donation allows something positive to come out of a person's death.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

23. I would support other people if they decided NOT to become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

24. In general, contracting a vaccine is safer than being vaccinated against it.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

25. I have sometimes thought about having cosmetic surgery.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

26. Organ donation helps bring meaning to the death of a loved one.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

27. There is little scientific proof that immunization prevents infections disease.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

28. If a simple cosmetic procedure would make me more attractive to others, I would think about trying it.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

29. I am willing to try to convince people that they should become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

30. If I were required to travel to a country in which certain infectious diseases were prevalent, I would undergo prior vaccination.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

31. There would be no need for black market organ sales if more people became organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

Finally, please answer just a few more questions about yourself.

1. Are you male or female? Male / Female

2. What is your date of birth? _____

3. What is your major area of study? _____

4. With what race/ethnicity do you most closely identify? (check all that apply)

Black/African American East Asian/Pacific Islander Hispanic/Latino(a)

Native American South Asian/Indian White/Caucasian

Other (please specify): _____

Computer Lab Appointment Registration and Sign-up

This study is not yet complete!

To receive extra credit equivalent to 2% of the points in your class, you will need to sign up for an appointment to complete the second part of this study. For the next part, you will be asked to come to a computer lab on the GSU campus to watch a 45-minute episode of a popular TV show. Afterwards, you will be asked to take another online survey that will take about 30 minutes to complete. In total, you should expect to spend at least an hour and 15 minutes in the lab. Before you schedule an appointment, you will need to create a profile on the Appointment Quest website.

To view appointment times and schedule your appointment on Appointment Quest, click on the link below:

[Make A Lab Appointment](#)

Appendix C: Post-Exposure Questionnaire

Thank you for watching the episode of *Numb3rs*. Now, we would like to get a better understanding about what you were thinking and feeling while you were watching.

In the space below, please write sentence-length descriptions of as many positive or negative thoughts or feelings that you remember having *during* the episode. Please list only thoughts or feelings that you remember having while you were watching the episode.

When you have finished listing all the thoughts and feelings your remember having, please proceed to the next page.

Now we want to ask some questions about your current emotional state. Next to each listed emotion, please indicate the extent that you are experience that emotion right now.

1. How happy do you feel?

Not at all							Extremely
Happy							Happy
0	1	2	3	4	5		6

2. How guilty do you feel?

Not at all							Extremely
Guilty							Guilty
0	1	2	3	4	5		6

3. How angry do you feel?

Not at all							Extremely
Angry							Angry
0	1	2	3	4	5		6

4. How proud do you feel?

Not at all							Extremely
Proud							Proud
0	1	2	3	4	5		6

5. How sad do you feel?

Not at all							Extremely
Sad							Sad
0	1	2	3	4	5		6

6. How scared do you feel?

Not at all							Extremely
Scared							Scared
0	1	2	3	4	5		6

7. How disgusted do you feel?

Not at all Disgusted						Extremely Disgusted
0	1	2	3	4	5	6

Now, please think back to your experience watching the episode and indicate how much you agree with the following questions (0 = Disagree Strongly; 6 = Agree Strongly)

1. While I was watching the episode, I could easily picture the events taking place.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

2. I wanted to learn how the episode ends.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

3. I could picture myself in the scene of the events depicted in the episode.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

4. The episode affected me emotionally. 0 - Disagree Strongly

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

5. After finishing the episode, I found it easy to put it out of my mind.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

6. The events in the episode have changed my life.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

7. While watching the episode, activity going on in the room around me was on my mind.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

8. I was mentally involved in the episode while watching it.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

9. I found myself thinking of ways the events in the episode could have turned out differently.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

10. I found my mind wandering while watching the episode.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

11. The events in the episode are relevant to my every day life.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

Thinking back on your experience watching the episode, please indicate how much effort you put into the following activities (0 = None; 6 = Very Much).

12. How much attention did you pay to the episode?

None						Very Much
0	1	2	3	4	5	6

13. How much effort did you put into thinking about the episode?

None						Very Much
0	1	2	3	4	5	6

14. How much personal involvement did you feel with the episode?

None						Very Much
0	1	2	3	4	5	6

15. How much deep thought did you put into the episode?

None						Very Much
0	1	2	3	4	5	6

Next, please evaluate how much you agree or disagree with the following statements about what you were doing while you watched the episode (0 = Disagree Strongly; 6 = Agree Strongly)

16. I tried to focus on being entertained.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

17. I was mostly focused on having a good time.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

18. I wanted to enjoy episode, so I did not try to read too much into what its underlying message.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

19. The episode provided a good escape from thinking about the real-world.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

20. I tried to focus on the underlying messages of the show.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

21. I was very focused on understanding the episode's theme.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

22. I often reflected on how the experiences in the story related to the experiences in my own life.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

23. This episode really made me think.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

Below are several thoughts and feeling about the episode you watched. Try to recall if you experienced any of these thoughts at any time while you were watching. If you experienced

a particular thought, check "yes." If not, check "no." At any point during the show, did you ever think that:

24. Registering as an organ donor is a risky thing to do

Yes / No

25. I was pleased when I realized the episode was about organ donation

Yes / No

26. It is inconvenient to register as an organ donor

Yes / No

27. If more people registered as organ donors, there would be no organ donation black market

28. It's scary to think about being/becoming an organ donor

Yes / No

29. Organ transplants are unnatural

Yes / No

30. When I realized the episode was about organ donation, I felt glad that the topic was being addressed

Yes / No

31. People should not register as organ donors because it might put their life in danger Yes / No

32. It makes me angry how the organ donation black market treats donors

Yes / No

33. It's exciting to be/become an organ donor

Yes / No

Yes / No

34. It's so easy to register as an organ donor

Yes / No

35. I was being manipulated by the episode to become an organ donor

Yes / No

36. Some people cannot get an organ transplant unless they use the black market

Yes / No

37. The episode's depiction of the need for organ donation was not true

Yes / No

38. It's sad that some people cannot get the transplants they need

Yes / No

39. So many people could be helped through organ donation

Yes / No

40. The episode's depiction of the need for organ donation was accurate

Yes / No

41. The shortage of organ donors depicted in the show is an exaggeration

Yes / No

Please indicate the extent to which you agree with the following statements about the episode you just watched (0 = Strongly Disagree; 6 = Strongly Agree)

42. The episode was enjoyable

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

43. The episode was entertaining

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

44. I would recommend this show to friends

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

45. If given the opportunity, I would watch more episodes from this show

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

46. The episode was dull

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

For the items below, consider how closely you were able to put yourself in each main character's shoes, and identify with them while you were watching the episode (0 = Did not identify With At All; 6 = Identified With Strongly). If you do not remember one of the characters, please mark "not applicable".

47. Don (FBI agent; Charlie's brother)

Did not Identify With At All							Identified With Strongly	N/A – Don't Remember N/A
0	1	2	3	4	5	6		

48. Charlie (math genius; Don's brother)

Did not Identify With At All							Identified With Strongly	N/A – Don't Remember N/A
0	1	2	3	4	5	6		

49. Alan (Don and Charlie's father)

Did not Identify With At All							Identified With Strongly	N/A – Don't Remember N/A
0	1	2	3	4	5	6		

50. Amita (FBI agent)

Did not Identify With At All							Identified With Strongly	N/A – Don't Remember N/A
0	1	2	3	4	5	6		

51. Santi (young woman who wanted to sell her kidney)

Did not Identify With At All							Identified With Strongly	N/A – Don't Remember N/A
0	1	2	3	4	5	6		

52. David (FBI Agent)

Did not Identify With At All							Identified With Strongly	N/A – Don't Remember N/A
0	1	2	3	4	5	6		

53. Megan (FBI Agent)

Did not Identify With At All							Identified With Strongly	N/A – Don't Remember N/A
0	1	2	3	4	5	6		

54. To what extent do you believe the episode you watched was designed to be entertaining or persuasive? (1 = Entertaining; 7 = Persuasive)

Entertaining				Equally Entertaining and Persuasive			Persuasive
1	2	3	4	5	6	7	

Please indicate whether the following scenes occurred in the episode you just watched (Yes or No)

55. The ambulance driver survives after the car crash

Yes/No

56. Don (an FBI agent) is told by his father about a friend who needed an organ transplant but could not find a match.

Yes/No

57. The FBI agents eventually find Prita, the sister, alive but she has already had her organs removed

Yes/No

58. The main characters discuss organ donation registration while having dinner together

Yes/No

59. In the very last scene of the episode, Santi is reunited with her sister

Yes/No

Next, we have several questions about organ donation.

First, are you currently registered as an organ donor?

Yes / No

(If yes) 1. How are you registered?

I signed an organ donor card

I registered as an organ donor on my driver's license

Other: _____

1a. I feel proud about my decision to donate

1b. I would recommend the decision to become an organ donor to other people

1c. I always want to be registered as an organ donor

1d. I would not advise someone else to register as an organ donor (R)

1e. I regret my decision to donate (R)

1d. I feel very committed to my decision to become an organ donor

When you complete this questionnaire you will be taken to the organdonor.gov website where you will have an opportunity to register as an organ donor.

2. Please answer the following questions regarding your intentions to register by putting an X next to the statement that you feel best describes you.

I will definitely register as an organ donor

I will probably register as an organ donor

I am unsure as to whether or not I will register as an organ donor

I will probably not register as an organ donor

I will definitely not register as an organ donor

___ I will not register, because I am already registered as an organ donor*

3. If a close family member or friend required a kidney transplant to save their life, how willing would you be to donate one of your kidneys?

(0 = not at all willing, 3 =somewhat willing, 6=definitely willing)

Not at All Willing			Somewhat Willing			Definitely Willing
0	1	2	3	4	5	6

4. If an acquaintance required a kidney transplant to save their life, how willing would you be to donate one of your kidneys?

(0 = not at all willing, 3 =somewhat willing, 6=definitely willing)

Not at All Willing			Somewhat Willing			Definitely Willing
0	1	2	3	4	5	6

Please indicate how much you agree with the following statements about your decision to register as an organ donor (0 = Disagree Strongly; 6 = Agree Strongly) (For registered donors, only)

1. I feel proud about my decision to donate

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

2. I would recommend the decision to become an organ donor to other people

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

3. I always want to be registered as an organ donor

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

4. I would not advise someone else to register as an organ donor

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

5. I regret my decision to donate

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

6. I feel very committed to my decision to become an organ donor

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

Please indicate the extent to which you agree with the following statements (0 = Disagree Strongly; 6 = Agree Strongly)

1. I would be comfortable talking to my family about becoming an organ donor

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

2. I know how to talk to my family about my decision to be (or not to be) an organ donor

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

3. I would encourage others to sign up to become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

4. I am willing to talk to my family about my decision to become an organ donor.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

5. I would support other people if they decided *not* to become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

6. I am willing to try to convince other people that they should become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

7. I am willing to ask a family member to witness my signature on an organ donor card.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

8. More people should sign up to become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

8. I would support other people if they decided to become organ donors.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

10. Organ donation helps to bring meaning to the death of a loved one.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

11. Signing an organ donor card is just tempting fate.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

12. The rich, famous, and/or well-connected can pay their way for higher priority on a transplant waiting list or “pull strings” to get a transplant faster

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

13. Organ donors are heroic because they save lives.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

14. Removing organs from the body just isn't right.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

15. The idea of organ donation is somewhat disgusting.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

16. An organ is matched to a recipient through a national computerized system

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

17. Making plans for my own death by signing an organ donor card might make death happen more quickly.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

18. It is possible for a brain dead person to recover from his/her injuries

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

19. Doctors work just as hard to save a patient who is an organ donor as one who is not.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

20. Donating organs would allow part of me to live after I die.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

21. The body should be kept whole for burial.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

22. Organs can be bought and sold on the black market in the U.S.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

23. Doctors might let me die if they know I am an organ donor.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

24. Organ donation allows something positive to come out of a person's death.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

25. Because the body, exactly as it is on earth, will be reunited with the spirit after death, organs should not be removed when someone dies.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

26. People who choose to donate a family member's organs end up paying extra medical bills

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

27. A hospital's transplant committee determines priority of patients on the waiting list at that hospital

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

28. People who donate their organs risk displeasing God or Nature.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

29. Doctors have personal pull in deciding which patient gets an organ transplant.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

30. I wouldn't like the idea of having another person's organs inside of me, even if I needed a transplant.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

31. People's bodies should be buried without removing organs so they will be able to rise from the dead or exist in the afterlife.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

32. The thought of organ donation makes me feel “weird” or uncomfortable.

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

33. Organ donors might not be resurrected or exist in the afterlife because they don't have all their “parts.”

Disagree Strongly	Disagree	Disagree Somewhat	Neither Agree Nor Disagree	Agree Somewhat	Agree	Agree Strongly
0	1	2	3	4	5	6

Finally, please answer just a few more questions about yourself.

1. Are you male or female? ___ Male ___ Female

2. How old are you? _____ years old

3. What is your major? _____

4. With what race/ethnicity do you most closely identify? (check all that apply)

Black/African American East Asian/Pacific Islander Hispanic/Latino(a)

Native American South Asian/Indian White/Caucasian

Other (please specify): _____

5. How likely do you think it is that you might need an organ transplant sometime in the future?

Not at All						Very Likely
Likely						
0	1	2	3	4	5	6

6. How likely do you think it is that someone in your family might need an organ transplant sometime in the future? (0 = not at all likely; 6 = very likely)

Not at All						Very Likely
Likely						
0	1	2	3	4	5	6

7. How likely do you think it is that one of your friends will need an organ transplant sometime in the future? (0 = not at all likely; 6 = very likely)

Not at All						Very Likely
Likely						
0	1	2	3	4	5	6

8. Do you currently have any diseases that could lead you to needing an organ transplant in the future (e.g., diabetes, cirrhosis, kidney disease, etc)?

Yes / No

9. Do you currently have any close friends or family that have diseases that could lead to them needing an organ transplant in the future (e.g., diabetes, cirrhosis, kidney disease, etc)?

Yes / No

10. Have you ever received an organ transplant or been on a waiting list to receive an organ transplant?

Yes / No

11. Are any of your family members or close friends received an organ transplant or been on a waiting list to receive an organ transplant?

Yes / No

12. Do you have a job that requires you to work with transplant patients or patients needing transplants?

Yes / No

13. Have you ever donated an organ or bone marrow?

Yes / No

Numb3rs

14. Approximately how often had you watched *Numb3rs* episodes before today?

Never	Rarely	Occasionally	Often	All the Time
0	1	2	3	4

15. Had you seen this particular *Numb3rs* episode before today?

Yes / No

You don't have to go to the DMV to register as an organ donor. Registering to become an organ donor in your state of residence is as easy as filling out a short online form. If you would like to register or find out more information about registering as an organ donor, click on the link:

“Tell me more about donating”

(links to: organdonor.gov/becomingdonor/stateregistries.html)

“No, thank you”

(links to page that thanks participants for their participation)

Appendix D: Informed Consent

Georgia State University Department of Communication Informed Consent

Title: Audience Responses to a Medical Storyline in a TV Drama

Principal Investigator: Cynthia Hoffner

Student Principal Investigator: Elizabeth Cohen

Purpose: You are invited to volunteer in a research study. This study looks at how college students respond to television dramas about medical crimes. You are being asked to volunteer because you are a college student. A total of 200 people will be recruited for the study. The study consists of 2 parts.

Procedures: This study involves completing two surveys, and watching a television show. The 1st survey will be given online when you sign up for the study. It should take about 20 minutes. When you are done with the 1st survey, you will be asked to come to a computer lab on the Georgia State University Campus. In the computer lab, you will watch a 40 minute TV show drama. Afterward, you will be asked to take the 2nd survey in the lab. The survey will take approximately 40 minutes to complete. The surveys will ask questions about your media habits, opinions on medical issues, and opinions of the TV show.

Compensation: You will receive course credit in exchange for your participation. You will spend a total of 2 hours completing both parts of the study. You will earn two research credits.

Risks: This study presents minimal risk to you. You could experience some temporary discomfort in the 2nd part of the study, as you will be asked to watch a TV show that depicts disturbing crime scenes. However, there are no more risks than ordinarily encountered during regular television viewing.

Benefits: Participating in this study may not benefit you personally. But the results should contribute to understanding how medical dramas affect society.

Voluntary Participation and Withdrawal: Participation in the research is voluntary. If you decide not to be in the study, you have the right to drop out at any time. You may skip questions or stop participating at any time. Whatever you decide, you will not lose any benefits.

Confidentiality: You will not be asked to provide your name if you participate. You will be asked to provide a portion of your student ID number. The questionnaires do not ask for any identifying information about you. All of your information will be kept confidential. We will use a study number rather than your name on study records. The information you provide will be stored on password protected computers. Facts that might point to you will not appear when we present its results. The findings will be summarized and reported in group form. You will not be identified personally.

Surveys for this study are conducted online. Because data sent over the Internet may not be secure, complete confidentiality cannot be guaranteed. Any data sent over the Internet might not be secure. IP addresses will not be collected for this study. We will keep your responses private to the extent allowed by law. Only the researchers will have access to the information you provide. Information may also be shared with those who make sure the study is done correctly (GSU Institutional Review Board, and Office for Human Research Protection).

VII. Contact Persons: If you have questions about the study, you may call Dr. Cynthia Hoffner at 404-413-5650 (choffner@gsu.edu), or Elizabeth Cohen at 678-768-7765 (epalnu@gsu.edu). If you have questions or concerns about your rights in this research study, you may contact Susan Vogtner in the Office of Research Integrity. She can be reached at 404-413-3513 or svogtner1@gsu.edu.

If you are 18 or older, and willing to volunteer for this research, please click the “I agree” button below:
I agree

Appendix E: Numb3rs Thought & Feeling Listing Codebook

Coding Instructions

1. On the coding sheet, record the appropriate subject ID, record the number of individual responses they reported (each individual response is numbered).
2. For each participant, read all of their responses once. Then reread the participants' individual responses, one-by-one, and identify which of the codes (below) are represented in the answer.
3. Most responses are one sentence in length, but occasionally complete thoughts or feelings with additional elaboration or examples consist of two or multiple sentences. In that case, code the multiple sentences as a complete thought or feeling.
4. List all the codes that occur in the response. List a given code only once per individual response.

Codes

Subject ID: Write the number of the participant who expressed the thought/feeling.

Response Number: Write the number each separate thought/feeling response.

What type of episode processing is present?

00 – Cannot be Determined: response is too vague to suggest a specific type of processing or it is unclear if respondent's comment refers to the subtext or narrative, or episode irrelevant point.
EX: "I felt happy."

10 – Episode Irrelevant: response refers to a feeling, thought, or observation that is unrelated to the episode (e.g., external distractions, room temperature, etc.)
EX: "The chair I was sitting in was uncomfortable."

Narrative Processing: response makes predictions about or evaluates some aspect of the story *besides* the subtext. References to, or evaluations of the casting, acting, characters, events in the story, storyline, writing, entertainment value, genre, realism, or show popularity qualify as narrative responses.

If respondents mention that their contemplations on the show were inspired by a specific narrative element, the response may need to receive both a narrative and subtext code (e.g., "When the doctor turned out to be sort of a bad guy, it made me start to question my comfort with being an organ donor").

In some cases, subtextual processing may seem to be implied if responses make subtext-consistent or inconsistent observations about the story or characters (e.g., "I was sad because the

man who needed organs couldn't get on the transplant list"). However, please code this as a narrative processing response alone, unless it is accompanied a specific, extra-narrative reference to the subtext in a separate clause (e.g., "I was sad because the man couldn't get on the transplant list and it really made me think about the organ shortage problem").

Singular references to learning from or generally thinking about the show should be coded as subtext—NOT narrative processing (e.g., "This show gave me a lot to think about").

21 – Does NOT Address Organ Donation Story Line: response makes no specific reference to the organ donation/transplant/black market storyline (default)

EX: "I thought the person playing the FBI agent was a bad actor."

22 – Addresses Organ Donation Story Line: response specifically references the organ donation/transplant/black market storyline.

EX: "I felt anger toward the character trying to purchase organs on the black market."

Subtext Processing: response references some aspect of one of the story's underlying messages or themes related to organ donation, black market, or culture/heritage (explained below).

If subtext processing is present...

Is it counterargument, support argument, or neutral/indeterminate subtext processing?

Counterarguments: response opposes, resists, counters or argues against one of the 3 subtextual messages:

- Organ Donation Subtext: organ donation as an issue or as a personal decision
- Black Market Subtext: organ donation black markets exist or are common place, or developing countries are exploited by organ black markets (NOTE: this is not the same message as being for or against black markets).
- Culture/Heritage Subtext: assimilation isn't always advantageous or people can benefit from connecting to heritage, and maintaining their cultural identity.

Counterarguments include thoughts or emotions that are *inconsistent* with any of the 3 subtextual messages. Counterarguments also include expressed resentment toward the episode's attempt to persuade audience members of one of the subtextual messages.

Organ Donation Counterarguments

31 – Organ Donation - General Counterarguments: Impersonal, global or political arguments or emotions expressed against organ donation or the need for (general) others become organ donors. NOTE: If the organ donation counterargument is not personal, this should be the default code.

EX: "People who register as organ donors risk being put to death before their time."

32 – Organ Donation - Personal Counterarguments: Instances in which participants suggest that organ donation or becoming an organ donor is inconsistent with their own thoughts, feelings, or experiences, or the thoughts, feelings or experiences of other people

they know. The self or close others are referenced. This includes personal feelings of resentment or resistance toward persuasive messages about organ donation.

EX: “I’m afraid that if I become an organ donor doctors won’t save me if I need it.”

EX: “The show’s message about organ donation seemed preachy to me”

Black Market Counterarguments

41 – Black Market - General Counterarguments: Impersonal, global or political arguments or emotions expressed against the message that organ black markets exists, that they are common and frightening, and they take advantage of vulnerable populations (like people in developing countries). NOTE: If the black market counter argument is not personal, this should be the default code.

EX: “Black markets don’t only target Indian girls like that, Americans donate organs illegally too.”

EX: “Organ black markets aren’t really that common.”

42 – Black Market - Personal Counterarguments: Instances in which participants suggest that the episode’s messages that organ black markets exists, that they are common and frightening, and they take advantage of vulnerable populations (like people in developing countries), are inconsistent with their own thoughts, feelings, or experiences, or the thoughts, feelings or experiences of other people they know. The self or close others are referenced.

EX: “My mother is a doctor who sees a lot of people who need transplants, but I know she would never have anything to do with an organ donation black market.”

Culture/Heritage Counterarguments

51 – Culture/Heritage - General Counterarguments: Impersonal, global or political observations about (general) people connecting to heritage, maintaining a cultural identity, or resisting assimilation. NOTE: If the culture/heritage counterargument is not personal, this should be the default code.

EX: “People shouldn’t be too connected to any culture.”

52 – Culture/Heritage - Personal Counterarguments: Instances in which participants suggest that the episode’s message about the importance of connecting to heritage, maintaining a cultural identity, or resisting assimilation is inconsistent with their own thoughts, feelings, or experiences, or the thoughts, feelings or experiences of other people they know. The self or close others are referenced.

EX: “I was an immigrant, and I had an easier time adjusting by trying to assimilate in my new culture.”

Support Arguments: response positively reflects upon, or expresses agreement with one of the three subtextual messages:

- Organ Donation Subtext: organ donation as an issue or as a personal decision
- Black Market Subtext: organ donation black markets exist or are common place, or developing countries are exploited by organ black markets (NOTE: this is not the same message as being for or against black markets).

- Culture/Heritage Subtext: assimilation isn't always advantageous or people can benefit from connecting to heritage, and maintaining their cultural identity.

Includes thoughts or emotions that are *consistent* or supportive of the subtext messages.

Organ Donation Support Arguments

61 – Organ Donation - General Support Arguments: Impersonal, global or political observations about organ donation or the need for (general) others to become organ donors. NOTE: If the organ donation support argument is not personal, this should be the default code.

EX: “I don't understand why more people don't just register as organ donors—it's so easy.”

62 – Organ Donation - Personal Support Arguments: Instances in which participants suggest that the episode's message about organ donation or becoming an organ donor is consistent with their own thoughts, feelings, or experiences, or the thoughts feelings or experiences of other people they know. The self or close others are referenced.

EX: “My mom had a liver transplant and healthy for the past 12 years because someone had ‘organ donor’ on their driver's license.”

Black Market Support Arguments

71 – Black Market - General Support Arguments: Impersonal, global or political observations about organ black markets or the experiences of (general) others with organ black markets. NOTE: If the black market support argument is not personal, this should be the default code.

EX: “It's reprehensible how people in our country get organs by taking advantage of people in poorer nations.”

72 – Black Market - Personal Support Arguments: Instances in which participants suggest that the episode's message about the prevalence or severity of organ black markets is consistent with their own thoughts, feelings, or experiences, or the thoughts feelings or experiences of other people they know. The self or close others are referenced.

EX: “Thinking about what goes on with illegal organ harvesting makes me feel queasy.”

Culture/Heritage Support Arguments

81 – Culture/Heritage - General Support Arguments: Impersonal, global or political observations about (general) people connecting to heritage, maintaining a cultural identity, or resisting assimilation. NOTE: If the culture/heritage support argument is not personal, this should be the default code.

EX: “People who know where they came from are more confident.”

82 – Culture/Heritage - Personal Support Arguments: Instances in which participants suggest that the episode's message about connecting to heritage, maintaining a cultural identity, or resisting assimilation is consistent with their own thoughts, feelings, or experiences, or the thoughts, feelings or experiences of other people they know. The self or close others are referenced.

EX: “I wish I knew more about my heritage.”

Neutral or Indeterminate Subtext Responses

91 – Organ Donation Neutral: the thought or feeling references an episode subtext about the need for organs or becoming an organ donor, but the sentiment is ambivalent; not clearly inconsistent or consistent with, counter or supportive of this message.

EX: “People used to get discounts on their drivers license for becoming organ donors.”

92 – Black Market Neutral: the thought or feeling references an episode subtext about the organ donation black markets, but the sentiment is ambivalent; not clearly inconsistent or consistent with, counter or supportive of this message.

EX: “I remember reading a New York Times article on black market organ harvesting.”

93 – Culture/Heritage Neutral: the thought or feeling references an episode subtext about connecting to heritage, maintaining a cultural identity, or resisting assimilation, but the sentiment is ambivalent; not clearly inconsistent or consistent with, counter or supportive of the message.

EX: “I don’t know if it’s better to work to assimilate into new cultures or maintain the identity of your own culture.”

94 – Indeterminate Neutral Subtext: the thought or feeling references an indeterminate episode subtext.

EX: “The show gave me a lot to think about.”

Shortcut Codebook

Type of Episode Processing

- 00 – Cannot Be Determined
- 10 – Episode Irrelevant

Narrative Processing

- 21 – Does NOT Address Organ Donation Story Line (default)
- 22 – Addresses Organ Donation Story Line

Subtext Processing

Counterarguments

- 31 – Organ Donation General Counterarguments
- 32 – Organ Donation Personal Counterarguments

- 41 – Black Market General Counterarguments
- 42 – Black Market Personal Counterarguments

- 51 – Culture/Heritage General Counterarguments
- 52 – Culture/Heritage Personal Counterarguments

Support Arguments

- 61 – Organ Donation General Support Argument
- 62 – Organ Donation Personal Support Argument

- 71 – Black Market General Support Argument
- 72 – Black Market Personal Support Argument

- 81 – Culture/Heritage General Support Argument
- 82 – Culture/Heritage Personal Support Argument

Neutral/Indeterminate Subtext Response

- 91 – Organ Donation Neutral Response
- 92 – Black Market Neutral Response
- 93 – Culture/Heritage Neutral Response
- 94 – Indeterminate Neutral Subtext