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VIEWERS' INVOLVEMENT AND REPOSSES TO AN ENTERTAINMENT NARRATIVE
IN THE PERSONAL TELEVISION ENVIRONMENT

by

SANGMI LEE

Under the Direction of Cynthia Hoffner, PhD

ABSTRACT

This study explored the role of involvement in narrative persuasion in the personal television environment. The entertainment overcoming resistance model (EORM) has suggested that viewers' involvement into a narrative story or with a character overcomes their resistance toward persuasive messages because when viewers are fully engaged in a program they are not motivated to scrutinize the messages and become less critical of the messages. With the increasing popularity of personal television viewing, this dissertation sought to expand the persuasive process of entertainment-education programs in the personal television environment. Furthermore, this study expanded the EORM by suggesting moral disengagement as a moderator in the process by which involvement reduces resistance. Finally, viewers' responses toward

watching personal television and how their comfort with characteristics of personal television was associated with involvement were examined.

To accomplish the research goals, 354 college students watched an episode of the crime drama *BoomTown* about drinking and driving via an iPad. Participants completed a survey before and after watching the episode.

Results showed that personal television viewers' identification with the main character reduced perceived invulnerability, and increased story-consistent attitudes and behavioral intentions, as suggested by the EORM. However, contrary to predictions, neither transportation nor identification were associated with counterarguing, and counterarguing was not associated with attitudes or behavioral intentions. Moral disengagement was not a significant moderator in personal television viewers' persuasive process, but moral disengagement toward the character's drunk driving did marginally moderate the process by which identification reduced resistance, in particular, counterarguing. A moderation analysis showed that identification with the character significantly curtailed counterarguing when moral disengagement toward the character's drunk driving was low or moderate, whereas identification was unrelated to counterarguing when moral disengagement toward his drunk driving was high. Finally, personal television viewers' involvement was positively associated with their degree of comfort with the screen, the viewing distance, and using headphones.

Interpretations of the findings, and theoretical and practical implications for understanding the role of personal television viewers' involvement in the process of narrative persuasion were discussed.

INDEX WORDS: Entertainment-education, Entertainment overcoming resistance model, Moral disengagement, Personal television, iPad TV.

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by

SANGMI LEE

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

2015

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Sangmi Lee

2015

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May 2015

ACKNOWLEDGEMENTS

My dissertation can be accomplished with the strong support and contribution of many people. I would like to acknowledge them with all my heart.

I would express my deepest appreciation first to my advisor and mentor, Dr. Cynthia Hoffner. I could not have completed this long journey without her guidance. Her passion in research inspired me, and I have learned from her how to develop my ideas about the academic research. Dr. Hoffner is always willing to spend her time for reviewing numerous drafts of my research including this dissertation, and to provide insightful comments on them. She has continuously shown unwavering confidence in me and that encouraged me to improve my dissertation. I hope that I one day will also become as good a mentor to someone else as she is.

I also want to express my gratitude to my committee members, Dr. Yuki Fujioka, Dr. Holley Wilkin, and Dr. Brendan Calandra. Their constructive feedback and advice made this dissertation much better.

My gratitude is extended to Dr. David Cheshier, Dr. Michael Bruner, and Ms. Tawanna Tookes in Communication Department, and Dr. Susan Ogletree in Educational Research Bureau, who have provided opportunities and advice since I first came to Georgia State. I also appreciate Dr. Greg Smith for reserving the classrooms for my dissertation research, and Dr. Justin Lonsbury in Center for Instructional Innovation for allowing me to use many iPads for my dissertation.

I am thankful to all my family. Especially, I hope to express my sincere appreciation to my husband, Sooil Shin for his endless assistance and strong faith in me. My lovely son, Harrison deserves great thanks for his patience. I also appreciate my mom and sisters who understand my status as a doctoral student, and my father-and mother-in laws for their endless

trust and love to me. Lastly, I thank Hyeyoung Song, Hyunyoung Jung, and Jieun Kim who have remained as my best friends in Seoul, Korea, and Heeyoon Choi and Kyoungsook Moon who were always by me in LaGrange, GA.

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1. INTRODUCTION

With the development of mobile technology and wireless Internet, there has been an increase in the number of people who enjoy watching television programs through personal media devices, from personal computers (PCs) to iPads and mobile phones. Researchers have focused on the feasibility and the adoption of these personal television formats, but few researchers have conducted audience-centric research into personal media environments. Beyond looking at who is adopting personal media for television viewing, research needs to study how the media is used and what influence it has on the users. Reflecting these needs, this study focused on personal television viewers, in particular their involvement and persuasion effects.

Viewers' involvement has been defined in various ways by different scholars. For example, Levy and Windahl (1985) argued that audience activity is one type of involvement, including the selection of the program, providing feedback, sharing and chatting with other fans of programs. They emphasize that audiences may interact with a medium, its content, or its character with doing these various types of activities. On the other hand, Sood (2002) defined involvement in entertainment programs as the degree to which audiences consider a media message in their own lives. Researchers have often categorized audience involvement in television entertainment programs into involvement with the narrative and involvement with a specific character of the narrative (Moyer-Gusé, 2008; Murphy, Frank, Moran & Patnoe-Woodley, 2011; Sood, 2002). Entertainment programs, for example television dramas, usually have a narrative structure and the characters of the story are an important element to deliver messages to audiences. So, viewers' involvement toward television entertainment programs is relevant to both the narratives and the characters. Narrative involvement means that viewers become engaged in the storyline, experiencing emotional and cognitive responses to the story,

whereas involvement with characters means viewers interact and identify with specific characters in the story (Sood, 2002).

According to Wirth (2006), in traditional television studies, “involvement” is an important factor in media usage and its effect. Audience involvement and its influence on beliefs and behaviors are important issues for researchers studying entertainment-education (E-E), the extended elaboration likelihood model (E-ELM), and entertainment overcoming resistance model (EORM). The researchers have found that entertainment programs addressing a specific issue can under certain conditions influence audience beliefs, attitudes, and behaviors toward that issue. This influential power of entertainment programs is due in part to the narrative structure that reduces viewers’ resistance toward persuasive messages (Brodie et al., 2001; Collins, Elliot, Berry, Kanouse & Hunter, 2003). Persuasive messages within narratives unfold slowly and are not obvious in the narrative structure, which reduces the likelihood that audiences will perceive the persuasive intent of the program and recognize the persuasive argument. In addition and more importantly, a narrative structure fosters viewers’ emotional experience of being immersed into a story and emotional involvement with specific characters. The viewers’ involvement into a narrative story or with a character overcomes their resistance toward persuasive messages because when viewers are fully engaged in a program they are not motivated to scrutinize the messages and become less critical. Instead of being ready to argue against the message, viewers concentrate more on the narrative and the characters of the program. As demonstrated above, audience involvement is associated with entertainment programs’ persuasive power in traditional television viewing. How about in personal television viewing? Does audience involvement still play a significant role in the persuasive process in personal television viewing? Studies on E-E have focused on traditional media viewers only, but now, with the increasing popularity of

personal television viewing, research needs to explore the persuasive process of E-E programs in the personal television environment. The number of personal media device owners and viewers who enjoy video programming via personal media has been continuously increasing. In 2013, 34% of American adults aged 18 and older had their own tablet computer, such as an iPad. This number is a dramatic increase compared to 2010, when only 3% of this group owned their own tablet (Zickuhr, 2013). According to recent data, content consumption, such as watching video, is the most common reason for using tablet computers; an online survey performed in over 60 countries in 2015 found that 59% of respondents watched video programs on their mobile devices (Furman, 2012; Nielsen, 2015a). Younger people (aged 34 and under) use their personal media devices, including mobile phone and tablet, to watch video programming more than do older people, both at home and outside (Nielsen, 2015b). Due to the unique characteristics of iPad as a type of personal media device, viewers' responses toward the characteristics may influence their involvement in video content viewed on the iPad, and furthermore affect the persuasion process in a narrative program. Therefore, there is a need to explore responses to personal media devices used for watching television, as well as the media effects of content viewed on those devices.

Existing persuasive processing models of E-E programs have not considered characters' morality and its evaluation by viewers. Viewers' identification with entertainment programs' characters is important in the persuasion process according to EORM. The main characters in entertainment programs are often engaged in risky or bad behaviors in order to increase dramatic tension. Identification with characters who commit risky or bad conduct may impact the process of persuasion. Media enjoyment research has found that television viewers develop an affective disposition toward media characters through continuous moral judgment of the characters'

behaviors and motivations (Zillmann, 2000; Zillmann & Cantor, 1977), and that viewers' evaluation is based on their own moral standard (Raney, 2004; Shafer & Raney, 2012). For some viewers, media characters' negative or bad behaviors are acceptable whereas others do not accept those behaviors. Moral disengagement is a process by which socially non-acceptable behaviors are judged as acceptable ones (Bandura, 2002). Personal standard of morality, such as the level of moral disengagement, may influence viewers' responses to and acceptance of a media character's behaviors. Although media enjoyment research has mainly focused on the association between viewers' moral judgment and enjoyment, those studies may provide important implications for the persuasive models of E-E studies. Drawing on media enjoyment research, this study will explore whether viewers' moral disengagement moderates the process by which identification with a character reduces resistance against a persuasive message in which the character engages in immoral conduct.

The design of this study set out to explore the role of involvement in narrative persuasion in the personal media environment. In particular, the study examined if, as outlined by EORM, viewers' involvement would reduce resistance, which is negatively associated with acceptance of persuasive messages. Furthermore, this study examined the function of viewers' moral disengagement in the persuasive process. According to the EORM, identification with a character reduces resistance to a persuasive message by providing viewers a chance to experience what a character is doing, thinking and feeling from the character's perspective. But the process by which identification reduces resistance might be influenced by viewers' moral disengagement. In particular, when viewers identify with a character who does bad behaviors, such as drunk driving, viewers' moral disengagement may increase resistance to a message that

discourages the bad behavior (drunk driving). Therefore, this study proposed viewers' moral disengagement as a possible moderator in the process by which identification reduces resistance.

In addition to examining the persuasive process in E-E programs, this study explored viewers' responses to the experience of personal television viewing (e.g., viewing on tablets or mobile phones), and how the responses would be associated with their involvement. In personal television viewing, viewers' involvement may be enhanced or reduced due to the unique characteristics of personal devices. However, there are not many research studies on how viewers respond to the unique experience of watching television on personal media devices or how those responses are associated with their involvement. One of the important characteristics of personal media is the relatively small size of the screen. In the traditional television environment, media studies have found that audience involvement is associated with screen size (Lombard, Reich, Grabe, Bracken & Ditton, 2000; Lombard & Ditton, 1997). Beyond the reduction in screen size, users hold the screen up close, in their hands. The proximity to the screen has been found to be important in viewers' attitude toward programs (Bellman, Schwaeda & Varan, 2009; De Cesarei & Codispoti, 2008; Lin, Imamiya, Hu & Omata, 2007), and researchers have posited that holding the device may increase viewers' sense of intimacy and interaction (Bracken & Pettey, 2007; Heikkinen, Olsson & Vaananen-Vainio-Mattila, 2009) although it may cause users to fatigue easily (Nordin, Cairns, Hudson, Alonso & Calvillo 2014; Vorbau, Mitchell & O'Hara, 2007). In addition, most personal device users wear earphones or headphones. Listeners feel like the sound is closer with headphones. Using headphones may increase listeners' involvement because it dilutes sounds and distractions of the outside world (Bracken & Pettey, 2007; Kallinen & Ravaja, 2007; Witmer & Singer, 1998). With these unique viewing methods and environments, this study explored the viewers' responses to the personal

television viewing experience, and how those responses would influence involvement in a narrative program.

In sum, this is an initial but important effort to understand personal television viewers' involvement and its role in persuasive effects. This study intended to show how the unique characteristics of personal television viewing would be associated with viewers' involvement and how their involvement would work in the persuasive process of E-E programs. Furthermore, this study extended prior EORM research by including moral disengagement as a moderator. This proposal of an extended model of EORM was suggested by considering work on both enjoyment and persuasion via entertainment media.

To accomplish the research goals, college students were invited to participate in a research study. They watched a television drama on an iPad. The story was about a character faced with a crisis due to his drunk driving. Participants also completed surveys about their involvement and resistance toward the program message, moral disengagement, and their attitudes and behaviors relevant to drunk driving. Although the rate of drinking and driving has been decreasing, it is still a serious issue: drunk driving deaths increased by 4.6% in 2012 compared to the previous year (Halsey, 2013). Rates of driving influenced by alcohol in 2013 were high (over 10%) for people between the ages of 18 and 54, but this issue seems to be more serious for the younger generation: the rate of driving influenced by alcohol was highest among 21 to 25 year-olds (19.7%) and 26-29 year-olds (20.7%) in 2013 statistics (U.S. Department of Health and Human Services, 2013). Despite the importance of this issue, there are not many studies about E-E effects on drunk driving, in contrast to the many E-E studies that have focused on safe-sex issues. In addition, most previous E-E studies on drunk driving have utilized stories about the victims of drunken driving accidents (Moyer-Gusé, Jain & Chung, 2012; Stitt & Nabi,

2005) or depicted positive examples of drunk driving prevention (e.g., Harvard Alcohol Project for Designated Driver; see Montgomery, 1993; Winsten, 1994). This study explored persuasive effects of a narrative that focused on a protagonist who drove after drinking and suffered negative consequences.

This dissertation begins with a review of the relevant literature. The review discusses the characteristics of personal television viewing, audience involvement toward the narrative and with specific characters, the role of involvement in persuasion via entertainment-education programs (including recent models of narrative persuasion), and viewers' moral engagement toward characters based on theories in media enjoyment studies. The literature review ends with an explanation of how these models and theories can be applied in the current study. Chapter three, methods, describes the research design and the measures to be obtained via questionnaire, and all results of analyses are reported in chapter four. Finally, the interpretations of the results, theoretical and practical implications, limitations and suggestions for future research will be discussed in chapter five.

2. LITERATURE REVIEW

Chapter 2 reviews the literature concerning key background and concepts for this study. It consists of five sections. The first section demonstrates main characteristics of personal television viewing. By reviewing the existing literature, the association of the characteristics of media devices with viewers' involvement will be discussed. The second section provides an explanation of the audience involvement in a television program. Because entertainment television programs often have a narrative structure involving various characters, the viewers' involvement in these programs can be categorized as an involvement toward the program and an involvement toward a specific character (Moyer-Gusé, 2008; Murphy et al., 2011; Sood, 2002). Detailed explanations of each type of involvement will be discussed. The third section reviews relevant theories on viewers' involvement and persuasion. Audience involvement and its persuasive effects on attitudes and behaviors have been researched in E-E studies. Researchers in the field have proposed that E-ELM and EORM models regarding to health-relevant issues. The fourth section reviews theoretical approaches in media enjoyment research, moral disengagement, in order to propose a potential role for moral disengagement in the persuasive process in E-E. After reviewing all the literature, in the fifth section, how the theories and models can be applied to research about personal television viewers will be discussed.

2.1 Characteristics of Personal Television Viewing

Since ABC started downloading services in 2005, all major U.S. broadcast networks including CBS, NBC, FOX, The WB and PBS have provided both streaming and downloading services, so that television audiences can enjoy their favorite shows via PCs rather than

exclusively via stationary television sets. The developments of hand-held devices and wireless Internet technology have expanded the personal media environment available for watching television. People now enjoy television programs anywhere and anytime through mobile devices, such as mobile phones or iPads, with no limitations on a fixed location, and more importantly, these devices provide audiences with personalized viewing experiences (Schuurman, Marez & Evens, 2010). Harboe (2010) defines mobile TV as watching television content on handheld devices, and he pointed out that people who watch television with personal devices can see media characters within arm's reach. Some researchers emphasize personal (individual) use of mobile TV rather than mobility. For example, Cui and colleagues suggested that mobile TV should be called personal TV because personal use is more important value than mobility in watching programs through hand-held devices (Cui, Chipchase & Jung, 2007). Personal television has unique characteristics, including relatively small screens, close viewing distance, holding devices and using headphones. Researchers have explored how these characteristics are associated with personal viewers' involvement.

The small screen size has been identified as an important characteristic, as well as a potential drawback of personal television. When mobile television was introduced, industry professionals expected that the reduced screen size would be an important obstacle to mobile devices becoming popular for watching television (Buchinger, Kriglstein & Hlavace, 2009; Jung, Perez-Mira & Wiley-Patton, 2009). In early television research, studies showed a positive association between screen size and viewers' involvement. For example, Lombard and Ditton (1997) found that people who watched action films on a large screen (70-inch diagonal) reported a greater feeling of participation in the action of the film than those who watched on a smaller screen (35-inch diagonal). Reeves, Lang, Kim, and Tatar (1993) also found that large screen

viewers (52-inch diagonal) had a greater level of involvement and participation than small screen viewers (5-inch diagonal). In later research, Lombard and colleagues (2000) examined viewers' involvement when watching video clips on a large screen (46-inch diagonal) and a small screen (12-inch diagonal). Subjects watched short clips, including scenes of riding a roller coaster, bobsledding, windsurfing, or flying a fighter jet. After watching these clips, the participants' sense of presence was measured by 13 indices asking how much the viewers perceived the sense of physical movement, enjoyment, speed of the movement, excitement, involvement, closeness, danger, and so forth. The researchers found that participants who watched video clips on a big screen were more likely to experience presence than people who watched the same clips on a smaller screen. Presence is a perceptual experience of "being there" (Bracken & Pettey, 2007). In more recent research on computer games, screen size was found to increase game players' sense of presence (Hou, Nam, Peng & Lee, 2012). When individuals experience presence, they are fully absorbed in the content and are unaware of the mediation (Lombard & Ditton, 1997). In the study by Hou and colleagues (2012), participants played a third-person computer game on either an 81-inch or 12.7-inch diagonal screen. Individuals who played the game on a larger screen reported a greater sense of presence than those who played on a smaller screen. As shown above, several researchers have found a positive association between screen size and viewers' involvement.

On the other hand, Bracken and Pettey (2007) observed either no relationship or a negative relationship between screen size and measures of involvement. These researchers compared the effects of regular size televisions and iPods on viewers' immersion, spatial presence, and social realism. They showed 10-minute video clips of either dynamic action or conversation edited from a film, and they found that iPod viewers reported a higher immersion

score than television viewers regardless of the content of video clips. For spatial presence and social realism, there was no significant difference between large screen (television) and small screen (iPod) viewers. These results do not agree with what most previous research found in studies in the traditional television environment. According to Bracken and Pettey (2007), the experience of holding an iPod may have stimulated viewers to feel intimacy which then may have increased their immersion. Compared to traditional television devices, hand-held devices require more physical activities, such as touching screens or holding the devices. The sense of touch might increase the value of interaction in mobile communication (Heikkien, Olsson & Vaananen-Vainio-Mattila, 2009). In contrast, holding hand-held device can make users tired easily (Vorbau et al., 2007). In a mobile game study, Nordin and colleagues (2014) also concluded that holding an iPad might increase users' tiredness, and then this may reduce users' engagement and immersion.

In personal viewing contexts, the screen is located closer to a viewer compared to traditional television viewing. Audience members can be as close as their arm's reach to media characters. The distance between the viewers and the screen is related to the viewers' perception of size. When an object appears closer to viewers, it naturally looks bigger to them, because the feature is seen at wider angle at a closer distance. Both a close distance and a wide angle make images bigger, and researchers often use these two terms (close distance and wide angle) with the same meaning. De Cesarei and Codispoti (2008) argued that the influence of an image's size on viewers' emotional responses is directly related to the viewing angle or distance. Although the close viewing distance (which means wide angle) is an important characteristic of personal television that may influence viewers' emotional responses and involvement, most of the

previous research studies on the size effects of the television screen have not considered this factor.

Personal television viewers usually use headphones rather than speakers when watching a program. Headphones create an isolated listening experience by attenuating the sounds from the surroundings, and thus, using headphones may increase listeners' involvement (Witmer & Singer, 1998). In their research, Kallinen and Ravaja (2007) found that headphone users were more likely to pay attention and have positive feelings to a program. According to them, because headphones help mobile TV viewers be isolated from the environment, this increases viewers' presence, motivational relevance and pleasure. Bracken and Pettey (2007) found that iPod viewers were more immersed than traditional television viewers, and they consider headphone usage as one important reason for the results. "The use of headphones dilutes the sounds and distractions of the outside world and so the use of headphones might contribute to participants' sense of immersion" (Bracken & Pettey, 2007, p. 288).

As discussed above, several unique characteristics of personal television may be related to viewers' immersion and involvement. This study explored how viewers' responses to these characteristics would be associated with personal television viewers' involvement when they watched a narrative episode through an iPad.

2.2 Audience Involvement in Narrative Television Programs

Involvement is a complex construct that has been conceptualized in many ways. Researchers have proposed several concepts that capture different aspects of involvement, such as flow, presence, and transportation. Flow is an optimal experience that occurs when individuals perceive their ability is matched with the challenge of a task (Csikszentmihalyi &

Csikszentmihalyi, 1988). Because flow emphasizes individual activities, this concept is more useful in studies about interactive media such as Internet gaming rather than in studies on watching narrative television programs. Presence is the illusion of non-mediation in mediated experiences (Lombard & Ditton, 1997). Those who experience presence feel as though they have become a part of the media environment and are together with the media characters. Although both flow and presence are considered components of media users' engagement, they are not closely related to narrative media content. This study focuses on viewers' involvement in an entertainment program that has a narrative structure, and with the characters of the story. Viewers' involvement in television programs is relevant to both the narratives and the characters, so involvement in narratives is often categorized into two types: involvement with the narrative and involvement with a specific character (Moyer-Gusé, 2008; Murphy et al., 2011; Sood, 2002).

Involvement in narratives. Due to the narrative structure, entertainment television viewers experience emotional engagement with the storyline as it unfolds. In general, narrative involvement means that the viewers are engaged in the story, rather than their immediate world, while they are watching an entertainment program. Fully engaged individuals often forget the real world and are immersed in the narrative world. They focus on the events in the narrative world and experience vicarious emotional and cognitive responses to the events of the program. The most commonly used term for narrative involvement is transportation, which is defined as “a convergent process, where all mental systems and capacities become focused on events occurring in the narrative” (Green & Brock, 2000, p. 701). Transportation happens when people are transported from their real world to a narrative world. Transported individuals often lose access to real world information because they are entirely focused on the mediated world. Although they know the narrative world is not real, transported individuals feel strong emotions

and motivations related to the messages, much like they would if they actually experienced these events in the real world. As a result of being entirely engrossed in the narrative, when transported individuals return from the narrative world, their beliefs and attitudes are somewhat changed consistent with the story's message (Green & Brock, 2000). Researchers have explored the persuasive effects of transportation, and have found empirical evidence showing that transportation can lead viewers to accept the main argument of the message (Deighton, Romer, & McQueen, 1989), and to change their attitude to reflect the narrative (Green & Brock, 2000). Scholars have argued that the persuasive effect of transportation occurs, in part, because those who are in a transported state devote their cognitive resources fully to the events of the narrative, and so they are less willing or able to counterargue the messages in the narrative (Green & Brock, 2000). This will be discussed more fully in a later section of this review.

Involvement with a specific character. Viewers' involvement with a character occurs when a person has a cognitive and emotional connection with a specific character in the media. Several notions have been used for the construct of involvement with media characters, and among them, identification is the concept that has been often used in communication studies relevant to persuasion effects. Psychology scholars, such as Freud (1940/1989) and Wollheim (1974) defined identification as an imaginative process of becoming someone else while forgetting one's self. According to Bettelheim (1943), however, identification does not require an individual to take on the identity of the other. He views identification as sharing someone else's perspective of the world. Based on these earlier psychological conceptualizations of identification, identification with media characters has been defined as an imaginative experience of being a character presented in media, and sharing or taking on the perspective of the character (Cohen, 2001; Wilson, 1993). In media studies, identification has often been used without clearly

distinguishing it from several similar concepts such as similarity with a character, liking a character, wishing to be like a character, or imitation of a character (Murphy et al., 2011). Cohen (2006), however, argued that those are antecedents to identification (Cohen, 2001, 2006).

According to him, identification with a media character means that viewers experience events that happen to a character as happening to them at least momentarily while they are watching the show. He emphasizes that audience members are not aware of themselves but imagine becoming the media character during their identification with the character. Wilson (1993) demonstrates the intensity of identification. An audience member imagines taking a specific media character's identity and role at the initial level of intensity, but while strongly identifying, an audience member loses awareness of her/his identity and role as an audience member, and adopts the perspectives and identity of that media character.

Similar to transportation, identification has been considered an important factor in influencing individuals' attitude and behavioral changes, because audience members who are identifying with characters have the experience of sharing or taking on a character's status. Dal Cin, Zanna, and Fong (2004) demonstrated that, while watching a television drama, individuals who experience identification with a particular character may change their self-efficacy beliefs, attitudes, and behaviors to reflect the way the character thinks and acts in the program. In addition, researchers have found that identification with characters reduces viewers' counterarguing, selective avoidance, and perceived invulnerability, factors which can impede adoption of story-consistent attitudes and behaviors (Moyer-Gusé & Nabi, 2011). The role of identification in persuasive effects will be discussed in detail at the next section.

Now that two types of viewers' involvement in narratives have been defined, the next section will turn to existing theories relevant to these types of involvement in E-E studies.

2.3 Involvement and Persuasion

Researchers in media studies have been interested in how the messages embedded in narratives influence audience members' attitudes and behaviors. The current study explored how audience involvement in a television drama viewed on a personal media device would be associated with attitudes or behaviors regarding the issue of drunk driving. Thus, theories and models from Entertainment-Education (E-E) research will be reviewed next.

Entertainment-education. Singhal and Rogers (1999) defined entertainment-education (E-E) as “the process of purposely designing and implementing a media message to both entertain and educate, in order to increase knowledge about an issue, create favorable attitudes, and change overt behavior” (p. 229). In their later research, they reiterated their emphasis on the “intentional placement of educational content in entertainment messages” (Singhal & Rogers, 2002, p. 117). In this way, traditional E-E refers to embedding educational messages in entertainment programs in order to produce positive outcomes. Initial E-E studies were conducted primarily outside of the United States, using entertainment media that purposely incorporated educational content. More recently, researchers have considered all programs that include prosocial content to be entertainment-education, regardless of their purpose (Greenberg, Salmon, Patel, Beck & Cole, 2004). Moyer-Gusé (2008) argued that E-E “does not necessarily imply persuasive intent on the part of the message producer” (p. 409), and she defined E-E as prosocial messages that are inserted into popular entertainment media programs. Many studies on E-E in the United States have utilized programs designed for mainly entertainment, but two types of these entertainment programs can be distinguished. One type is commercial entertainment programs in which designated health-messages have been inserted, with the purpose of promoting healthy attitudes and behaviors. For instance, messages have been inserted

in programming in order to reduce drunk driving (e.g., Harvard Alcohol Project for Designated Driver; see Montgomery, 1993; Winsten, 1994) or to increase medial knowledge (e.g., Brodie et al., 2001; Kennedy, O'Leary, Beck, Pollard, & Simpson, 2004). Some entertainment programs, however, include prosocial messages without an intent to persuade, and E-E researchers also have investigated the influence of those programs on viewers' attitudes and behaviors (Collins et al., 2003; Moyer-Gusé et al., 2011, 2012).

The main argument of E-E researchers is that entertainment messages are more effective than direct persuasive messages (e.g., public service announcements) in influencing viewers' attitudes and behaviors due to the narrative structure, which helps reduce resistance to persuasion (Dal Cin et al., 2004; Green & Brock, 2000; Slater & Rouner, 2002). For example, viewers who watch a television drama about safe sex are more likely to report intention to use condoms because they may not recognize the persuasive intention in the drama and may not resist against the messages (Moyer-Gusé, 2008). Researchers in E-E studies have demonstrated evidence that helps explain the persuasive effects of entertainment programs. For example, viewers' resistance is related to their perception of persuasive intent, and people are not likely to perceive that intent when watching entertainment programs because the main purpose of entertainment media is commonly perceived to be enjoyment, rather than persuasion (Moyer-Gusé & Nabi, 2010). More importantly, viewers' involvement in the narrative and with characters may disrupt their ability and motivation to develop counterarguments. Empirical studies have shown that, due to their narrative structure, entertainment programs that address specific issues influence audience beliefs, attitudes, and behaviors (Brodie et al., 2001; Collins et al., 2003). Fictional narratives, such as television dramas, are effective in delivering persuasive messages because those

programs often lead viewers to become immersed in the story and/or involved with a specific character (Green, Garst & Brock, 2004).

Based on E-E studies, it is expected that a television drama about drunk driving may affect viewers' attitudes and behaviors related to drunk driving. However, not all viewers who watch a narrative entertainment program change their attitudes and behaviors in the same way or to the same degree. Although the persuasive effects of E-E programs have been demonstrated empirically in several studies, more explanation is needed to gain insight into the mechanism of the process. The following section discusses theory that explains the process of how entertainment narrative structure influences viewers' attitudes and behaviors, based on the Extended-Elaboration Likelihood Model (E-ELM).

Extended-elaboration likelihood model. As the name implies, the extended elaboration likelihood model (E-ELM) is based loosely on the elaboration likelihood model (ELM; Petty & Cacioppo, 1986), which explains how various factors influence the persuasive process at different levels of individual motivation and cognitive ability. One basic assumption of ELM is that people are not always active processors. Depending upon their motivation and cognitive ability to process the messages, people follow one of two elaboration routes: the central route or the peripheral route. Persuasion can occur through both routes, but the process and consequences of persuasion will be different in each case. When the topic of a persuasive message is interesting and relevant to recipients, they are more likely to take the central route to process the message. Using the central route, recipients' cognitive elaboration of the persuasive message increases; they scrutinize the message carefully and judge what information is fundamental and what is not. In contrast, when people have lower motivation or less ability to process the information, persuasion may occur by the peripheral route. Because recipients use less cognitive

resources to process the message via this route, non-fundamental information and simple cues play a more important role in persuasion. Persuasion via peripheral processing can occur quickly, but central processing results in stronger and longer-lasting persuasive effects (Petty, Briñol & Priester, 2009; Petty & Cacioppo, 1986). The ELM was developed primarily for the study of direct persuasive messages, such as advertising messages, so the findings of ELM may have limited application to other types of content, such as narratives (Moyer-Gusé, 2008; Slater & Rouner, 2002). However, ELM provides a valuable conceptual model that explains how people process persuasive information and how they respond during the process. Borrowing from this conceptual model, Slater and Rouner (2002) developed the Extended-ELM model in order to explore the mechanism through which E-E messages influence people's attitudes and behaviors. In the ELM, issue-driven motivation and ability are key factors in determining the route used and in explaining the process of persuasion. On the other hand, in the E-ELM, narrative involvement is the key factor in how people process E-E messages and in explaining the persuasive mechanisms. Unlike ELM, there is no distinction between central and peripheral routes in E-ELM. Instead, E-ELM contends that narrative involvement in E-E messages may reduce the audience's motivation to critically scrutinize the message and, as a result, increases their susceptibility to the persuasive arguments embedded in the story. Message scrutiny means that "individuals will engage in careful attention and thoughtful elaboration on a message" (Moyer-Gusé & Nabi, 2010, p. 30).

According to the E-ELM, while watching an entertainment narrative, viewers typically concentrate on following the plot of the story and become immersed in the dramatic elements of the program. Viewers' immersion into the program includes transportation into the narrative and identification with the characters. When viewers are fully involved, they become less critical and

less motivated to resist the persuasive arguments because their cognitive focus is on the narrative and characters, not on the persuasive subtext. Thus, the main argument of E-ELM is that viewers' involvement in entertainment narratives reduces their willingness and ability to scrutinize the message and their motivation to counter the arguments of the message, thus making it easier to influence their attitudes and behaviors (Moyer-Gusé & Nabi, 2010; Nabi, Moyer-Gusé & Byrne, 2007). There are several empirical studies supporting the idea that involvement in a narrative and with a media character reduces people's resistance and increases the persuasiveness of the message (e.g., Deighton et al., 1989; Green & Brock, 2000; Slater, Rouner, & Long, 2006).

The E-ELM addresses how E-E messages have persuasive effects by overcoming resistance. E-ELM scholars have considered the counterargument, in particular, as an important obstacle to persuasive effects of an entertainment program. Counterargument is "the generation of thoughts that dispute or are inconsistent with the persuasive argument" (Slater & Rouner 2002, p. 180). Counterargument often occurs when people oppose an argument because it is counter to their existing beliefs. Therefore, counterargument is one way for people to defend their own thoughts and attitudes toward an issue (Brock, 1967; Petty & Cacioppo, 1986). In addition to counterarguing, if we consider other types of resistance, this could be very useful in understanding why some messages are successful and others fail to influence viewers' attitudes and behaviors. The next section introduces a theoretical model that demonstrates how transportation and identification in entertainment programs may overcome types of resistance in addition to counterarguing.

Entertainment overcoming resistance model (EORM). The EORM is a theoretical model that examines how transportation and identification contribute respectively to E-E effects

by overcoming resistance and achieving persuasion. This model has advanced the E-ELM by suggesting several forms of resistance in addition to counterarguing, including reactance, selective avoidance, and perceived invulnerability (Moyer-Gusé, 2008; Moyer-Gusé & Nabi, 2010). Reactance is rejection of persuasive messages in order to reassert self-independence because humans have a basic need for freedom. When individuals perceive an effort by a third party to constrain their freedom, reactance may occur. According to EORM, liking and parasocial interaction (PSI) with a character can reduce reactance. PSI is “the seeming face-to-face relationship between spectator and performer” (Horton & Wohl, 1956, p. 215), which leads viewers develop a friendship with media characters. Messages from liked characters, especially those who seem like “friends,” can seem less threatening. Resistance also may occur through selective avoidance of messages. Individuals may selectively avoid messages because they prefer not to change their attitudes and behaviors, or due to fear, which often is the case with health messages. Selective avoidance, according to EORM, may be overcome by identification and enjoyment, because people may be more willing to engage with messages perceived as self-relevant and enjoyable. Perceived invulnerability is defined as people’s belief that negative outcomes will not happen to them. EORM suggests that perceived invulnerability can be reduced through identification because the viewer vicariously experiences what happens to the character, and thus may become more aware of personal risk. Among these several types of resistance, this study examined counterarguing and perceived invulnerability. This choice was made for several reasons. First, both counterarguing and perceived invulnerability are identified by the EORM as forms of resistance that are impacted by the two types of involvement (transportation and identification) examined in this study. They also are both considered important in health-related persuasion. If viewers argue against (i.e., counterargue) a message promoting health-behavior,

influence on viewers' attitudes and behaviors consistent to the message cannot occur. In addition, if viewers believe the negative consequences of unhealthy behaviors depicted in the persuasive message will never happen to them (invulnerability), persuasion also will not occur. Reactance, another type of resistance, was not included in this study because according to EORM, reactance may be reduced by liking or parasocial interaction, but not by transportation or identification, which were examined in this study. Finally, another form of resistance, selective avoidance, was not included because the design of this study did not allow viewers to select programs.

Both E-ELM and EORM explore the underlying mechanisms that account for the persuasive effects of E-E programs. Similar to E-ELM, EORM also posits that involvement with the narrative storyline and identification with characters are keys to overcoming resistance and influencing attitudes and behaviors. However, whereas the E-ELM treats transportation into the narrative and character identification similarly, the EORM considers transportation and character identification separately and explains how each is related to different types of resistance. First, EORM discusses how counterarguing can be reduced by transportation. Individuals who are transported by the storyline are immersed fully in the narrative, and thus they are not able or not motivated to use cognitive resources to resist the subtext argument (Green & Brock, 2000; Knowles & Linn, 2004; Slater & Rouner, 2002). Transportation occupies viewers' attentional focus, and following the storyline requires extensive cognitive resources, which leaves few resources to elaborate on persuasive subtexts (Busselle & Bilandzic, 2009). In addition, transportation reduces viewers' motivation to resist subtext arguments, because transportation is enjoyable and individuals do not want to interrupt this experience in order to counterargue. In other words, they are not motivated to scrutinize and criticize any embedded persuasive

messages. Empirical studies have shown that transported individuals report greater story-consistent beliefs (e.g., Green, 2004; Green & Brock, 2000). For example, in studies of television dramas, transportation influenced viewers' attitudes about gay marriage and about the death penalty (Slater et al., 2006), and affected cancer-related knowledge, attitudes and behaviors (Murphy et al., 2011) in ways consistent with the narrative subtext.

The EORM also includes a rationale for how identification with a specific character reduces counterarguing. Because viewers who are identifying with characters fully focus on a character in a narrative, and view story events from the character's perspective, persuasive subtext becomes less important to them and they are less likely to counterargue. Moreover, if a character with whom a viewer identifies delivers a persuasive message, it would be contradictory for the viewer to counterargue that message. In addition, if a viewer identifies with a character whose behaviors contradict the persuasive subtext but who experiences negative consequences and/or accepts the persuasive message (e.g., vows to stop risky behaviors), the viewer also may counterargue less, due to vicariously experiencing the negative consequences and/or behavioral transformation (Cohen, 2001; Green & Brock, 2000; Slater & Rouner, 2002). Identification with characters who have unconventional, undesirable, or bad behaviors will be discussed again later in this section. Much empirical evidence supports the negative association between identification and counterarguing by television drama viewers (Moyer-Gusé & Nabi, 2010).

Beyond counterargument, the perception of invulnerability has been suggested by the EORM as another type of resistance. People often believe that the negative consequences of risky behavior will not happen to them because they are immune and invulnerable to those adverse outcomes (Goossens, Beyers, Emmen, & van Aken, 2002). This perception of invulnerability is a type of psychological bias that leads people to underestimate their own risk

compared to that of others (Moyer-Gusé, 2008). Due to this perception of invulnerability, people sometime engage in risky behaviors even though they know the potential negative consequences of the behavior. Viewers may resist a persuasive health message due to this perceived invulnerability. For example, when they watch a program about a character who has suffered the negative consequences of drinking and driving, they may consider that it is just a fable that occurs in a television drama, and is not applicable to them. EORM addresses this perception of invulnerability as a type of resistance that reduces the persuasive effect of health messages, and has demonstrated that identification with characters in dramatic entertainment programs may reduce viewers' perceived invulnerability. According to EORM, a viewer who identifies with a specific character vicariously experiences what the character is doing, thinking and feeling, including experiences that the viewer may not have had in the real world. If that character is depicted as vulnerable (e.g., to adverse consequences of risky behaviors), then vicarious experience via identification can increase the viewer's perceived vulnerability to those negative consequences. As a result, the viewer may develop negative attitudes toward the risky behavior, and become more motivated to avoid engaging in that behavior, consistent with the message of the program.

2.4 Risky Behaviors and Persuasion

As discussed earlier, E-E includes popular entertainment media programs that contain prosocial messages. In these entertainment programs, protagonists are often in crisis for dramatic effect by engaging in risky behaviors, such as drunk driving, unsafe sex, or gambling. Moreover, the narrative structure of such programs often includes a persuasive subtext that discourages such behaviors or advocates healthy alternatives (e.g., practice safe sex). However, there has been

little research on learning from undesirable behaviors or persuasive effects of characters doing negative or risky behaviors.

Bandura (2004) demonstrated three types of media characters used as modeling in E-E programs: positive, negative and transitional. In entertainment programs, positive and negative characters consistently engage in good or bad behaviors and repeatedly receive rewards or punishments for the behaviors during the narrative. According to Bandura, people learn by observing the positive and negative characters' behaviors and the results of those behaviors. On the other hand, transitional characters cannot be typed either positive or negative. They usually start by engaging in negative or risky behaviors. They then face a crisis due to the negative or risky behaviors, but they overcome the crisis and change to become characters doing socially good behaviors. The story of transitional characters' change can encourage people to change from doing anti-social behaviors to doing socially good behaviors (Bandura, 2004). Researchers have emphasized the persuasive role of transitional characters in E-E programs (Lovell et al., 2008; Sabido, 2011). According to the studies, a transitional character who changes toward doing desired behaviors can be a model that viewers can imitate.

“Morally ambiguous characters” also are neither good nor bad characters, because they do both good and bad behaviors in a story (Krakowiak & Oliver, 2012). Traditionally, a protagonist in an entertainment narrative was a consistently good character and was portrayed as the hero. But nowadays, protagonists are often engaged in immoral behaviors. Some audience members excuse or consider those immoral behaviors as not very important, and empirical studies have found that viewers like antiheroes and morally ambiguous characters despite those characters' immoral behaviors (Krakowiak & Oliver, 2012; Shafer & Raney, 2012). One explanation of the findings is that viewers justify those immoral behaviors through moral

disengagement (Raney, 2004). Moral disengagement is the process of judging ordinarily unacceptable behaviors as morally permitted or accepted (Bandura, 2002, Raney, 2004). A common example of moral disengagement in the context of a narrative is when a hero's violence used to punish a villain is judged as acceptable violence. Viewers' moral judgment of characters' actions has been explored as an important factor in research on enjoyment of entertainment media. Research has demonstrated that television viewers continuously monitor and judge media characters' motivations and actions, and from this, viewers form affective dispositions toward characters and respond to the characters' anticipated outcomes based on those dispositions (Zillmann, 2000; Zillmann & Bryant, 1975; Zillmann & Cantor, 1977). Raney (2004) argues that viewers' judgments toward media characters are based on their personal standards of morality, and thus, their affective dispositions toward characters vary based on the extent to which viewers consider characters' behaviors as morally acceptable or not. In other words, moral judgment and dispositions toward characters can fluctuate based on viewers' individual differences, including their own moral traits or level of moral disengagement (Shafer & Raney, 2012). This implies that moral disengagement may play an important role in responses to a character and acceptance of the character's attitudes and behaviors within a narrative.

There are several types of moral disengagement, which can be applied to judgments of one's own and others' behaviors (Bandura, 2002). *Moral justification* is reconstructing harmful actions as socially worthy (e.g., justifying military violence as necessary for achieving world peace). *Euphemistic labelling* is disguising immoral action as respectable by using sanitized words (e.g., military use of the phrase "collateral damage" rather than civilian casualties). *Advantageous comparison* is contrasting a harmful action with a more horrifying one, such as murder. *Displacement of responsibility* is placing responsibility for a harmful action on a third

person (e.g., Nazi guards insisting that they simply followed orders). Similarly, *diffusion of responsibility* is sharing responsibility for harmful conduct with others, as in group decision-making or collective action. *Disregarding or distortion of consequences* is the process of minimizing the results of harmful action, and *dehumanization* is perceiving victims as less than human. Finally, *attribution of blame* makes a harmful action excusable by blaming circumstances rather than the person who did the action. Media enjoyment research posits that some viewers justify a character's risky or bad behaviors through moral disengagement because viewers want to like and be entertained by the character despite the character's negative behaviors (Krakowiak & Tsay, 2011).

Some narrative cues in a program may facilitate viewers' moral disengagement toward a character and her/his actions (Krakowiak & Tsay-Vogel, 2013; Raney, 2004). Expression of regret for bad behaviors, having a successful work position, or having a faithful attitude toward others may promote viewers to interpret a character's risky or bad behaviors as a mistake or misunderstanding rather than an intentional wrongdoing. In their E-E research, Tully and Ekdale (2012) found that viewers formed positive dispositions and identification with a morally ambiguous character despite his troubled past -- such as using drugs and pulling a gun -- because he expressed regret for his illegal behaviors and was faithful in teamwork as a soccer player. Viewers in their research interpreted the character's illegal behaviors as not important based on the narrative cues through moral disengagement.

Research on moral judgment and moral disengagement has focused mainly on viewers' enjoyment, but it would be useful to consider moral disengagement when examining persuasive effects in E-E programs. Persuasive messages embedded in narratives often involve characters who engage in unhealthy or disapproved behaviors (e.g., unsafe sex, drunk driving) as part of a

storyline that promotes alternative, healthy choices. Will identification with a character who engages in such behaviors reduce counterarguing and facilitate acceptance of the persuasive subtext (e.g., intention to engage in safe sex practices), as suggested by the EORM? Or might identification lead to moral disengagement and greater acceptance of the risky or unhealthy behavior, not only for the character but for the viewer as well? Exploring the role of moral disengagement in narrative persuasion would advance our understanding of the persuasive effects of E-E. A recent study by Tsay and Krakowiak (2011) found that identification with a character encouraged moral disengagement, i.e., justification of the character's immoral behaviors. They also found that moral disengagement was positively associated with affective enjoyment of the narrative. Their study offers some initial insight regarding the questions proposed above, but the research still focused on enjoyment rather than persuasion.

Having reviewed the main theories relevant to personal television viewers' involvement and persuasion in E-E programs, I next describe how the current study is designed based on existing theory and research.

2.5 The Current Study

With the increase in the number of people who enjoy entertainment videos through their personal devices, it has become important to understand how personal television viewers process E-E messages and the implications for persuasive outcomes, in particular those relevant to the viewers' health-risk behaviors. In the traditional media environment, research on E-E studies has demonstrated that entertainment television programming can increase viewers' health-safe attitudes and intentions. E-ELM and EORM have shown how viewers' involvement in an entertainment narrative can reduce resistance against persuasive messages and increase their

persuasive effects. According to these models, viewers' involvement is a significant factor in the persuasive process and attitudinal and behavioral outcomes. This research explores viewers' involvement and persuasion in the context of personal television viewing, and furthermore, it suggests an extension to the current EORM.

First, this study examined the process of persuasion via personal television devices, based on the EORM. Specifically this study asked: When people watch a television drama via an iPad, will viewers' transportation and identification reduce resistance against the persuasive message (anti-drunk driving) and increase their attitudes and behaviors consist with the message? Second, this study suggested an extension of the model to include the role of viewers' moral disengagement when watching an episode whose main character engages in anti-social behaviors. Research questions and hypotheses were developed related to each goal.

Persuasion process in personal television viewing. As the first goal of this study, how personal television viewers' involvement functions in the persuasive process was examined. Researchers have examined the persuasive effect of entertainment content and they have found that narrative structure can influence individual attitudes and behaviors, and EORM has demonstrated that involvement with the narrative (transportation) or a character (identification) in the story increases the persuasive effect because involvement reduces various types of resistance to the message (Moyer-Gusé, 2008; Moyer-Gusé & Nabi, 2010). This study examined the EORM using a drama about an understudied but important issue, drunk driving. College students were recruited to participate. All participants watched an episode of a TV series on a personal media device, specifically an iPad. In the episode, a man who drove after drinking excessively awakes the next morning with no recall of the previous evening. But after noticing damage and blood on his car and hearing about a hit-and-run death, he comes to believe that he

has hit and killed someone while driving under the influence. As a result, he becomes severely fearful of losing everything, including his career. This study examined how participants' transportation and identification impacted their resistance against the persuasive message embedded in the narrative (counterargument and perceived invulnerability), and how these types of resistance in turn influenced attitudes and behavioral intentions related to drinking and driving.

Before moving on to the hypotheses and research questions, a brief note is needed about the measurement of counterargument. Previous methods of measurement were adapted for this study, in an effort to overcome some limitations. Several studies have used closed-ended measures of counterargument, focusing on how much respondents actively agreed or disagreed with what happened in the program, and the extent to which they looked for flaws in the narrative (e.g., Moyer-Gusé, Chung & Jain, 2011; Moyer-Gusé & Nabi, 2010; Moyer-Gusé et al., 2012). But Moyer-Gusé and Nabi (2010) acknowledged that the wording needed to be so general that it was not clear "with what viewers counterargued" (Moyer-Gusé & Nabi, 2010, p. 45). Viewers may have counterargued to the persuasive message or to other aspects of the program, such as the way the storyline developed or the realism of characters. The authors attributed some unexpected findings for counterarguing to the ambiguity of the closed-ended measure (Moyer-Gusé & Nabi, 2010; Moyer-Gusé et al., 2012). Other E-E studies have used a thought-listing measure to assess counterarguments (e.g., Green & Brock, 2000; Stitt & Nabi, 2005), but participants were asked to list their thoughts to the narrative/program, not specifically in relation to the persuasive message. Thus, counterarguments may have been underestimated because respondents focused on other responses (e.g., responses to the characters). In the present study, participants were first asked to identify the main persuasive message of the program;

counterarguing to that message was then assessed directly, first through open-ended thought listing and then via closed-ended scales.

Transportation, identification, and counterargument. In the EORM, transportation is expected to reduce counterargument (Green & Brock, 2000; Moyer-Gusé & Nabi, 2010; Slater & Rouner, 2002). Transportation is a state in which viewers are entirely focused on a narrative, losing awareness of the real world. Research has shown that, as a result of being fully absorbed into a narrative, transported individuals experience strong emotions and motivations related to the narrative messages, and form message-consistent attitudes and behaviors. Because transported viewers devote their cognitive resources to the events of the narrative, they are less willing or able to resist the narrative messages. Counterargument refers to thoughts that are inconsistent with a persuasive argument, specifically a type of cognitive effort that viewers make in order to resist against a persuasive argument (Slater & Rouner, 2002). This study selected counterargument as a key type of resistance that would be reduced due to transportation in personal television viewing. This means that the more deeply involved viewers are in the storyline of the episode about negative consequences of drinking and driving, the less likely they should be to counterargue the message to not drive after drinking. Thus, the following hypothesis was proposed:

H1: Transportation into the episode depicting negative consequences of drinking and driving will be associated with less counterargument.

According to the EORM, identification with a specific character also leads to less counterarguing (Moyer-Gusé, 2008; Moyer-Gusé & Nabi, 2010). Identification is a process in which a viewer takes on the viewpoint of a specific character while watching a program, has a vicarious experience of the character's feelings and cognitions, and as a result understands the

character's perspectives and behaviors. Because television dramas unfold the story through various characters, identification with a specific character can be an important factor in how the viewer experiences the story and is influenced by the messages. In some prior studies, identification was operationalized as an average of viewers' identification with multiple characters (e.g., Moyer-Gusé & Nabi, 2010; Moyer-Gusé et al., 2011). The measures were correlated and the authors argued that the characters were equally vulnerable to the (potential) adverse consequences that were depicted. However, with regard to a relationship between identification and counterarguing, some ambiguity remains about whose actions or experiences viewers may have argued against. For this reason, the current study proposes to measure viewers' identification with a single character who is the focus of the main story of the episode.

In this study, the more viewers identify with the main character who is facing a serious problem due to drunk driving and who regrets his actions, the more they should vicariously experience emotions and cognitions similar to those of the character. Thus, viewers who share the character's perspective and thoughts may be less motivated towards counterargument. Therefore, the following hypothesis was posed:

H2: Identification with the main character, who suffers from the negative consequences of drinking and driving, will be associated with less counterargument.

Identification and perceived invulnerability. This study also examined perception of invulnerability as another type of resistance. Invulnerability is a psychological bias that people believe themselves immune to serious consequences of risky behavior (Goossens et al., 2002; Moyer-Gusé, 2008). For example, people sometimes drive after drinking even though they recognize the danger because they believe they will not have a serious accident. Because viewers who perceive themselves to be invulnerable are less likely to accept an anti-drunk driving

message, viewers' perceived invulnerability is a serious and important resistance to be examined in E-E studies. According to EORM, identification with a specific character can overcome perceived invulnerability to the depicted adverse consequences (Moyer-Gusé, 2008; Moyer-Gusé & Nabi, 2010). In this study, when viewers identify with the character who is placed in a difficult situation due to drinking and driving, they should experience the difficulties vicariously. This experience should reduce viewers' perception of invulnerability. Thus, it was predicted that:

H3: Identification with the main character who is placed in a difficult situation due to drinking and driving will be associated with less perceived invulnerability.

Resistance and persuasion. Communication researchers have agreed on the ability of stories to persuade. In particular, entertainment stories have been heralded as efficient in influencing people's attitudes and behavior. Both E-ELM and EORM contend that entertainment stories reduce viewers' resistance toward persuasive messages. According to these models, less resistance may increase persuasive effect. In other words, viewers' resistance is negatively associated with their story-consistent attitudes and behavior.

As already discussed, this study examined two types of resistance to persuasion, counterarguing and perceived invulnerability. If viewers counterargue against a storyline showing negative results of drinking and driving, they should be less likely to change their attitudes and behavioral intentions toward those advocated by the message. Similarly, even if viewers agree that drunk driving leads to negative consequences, if they believe that bad things are likely to happen only to others (not to themselves), then they should not form strong attitudes or intentions to avoid driving after drinking alcohol. Therefore, perceived invulnerability also should reduce persuasion effects. This study predicted a similar process in personal television viewing. Therefore, it was posed that:

H4: Counterarguing will be associated with (a) less positive attitudes toward avoiding drinking and driving and (b) lower behavioral intentions to avoid drinking and driving.

H5: Perceived invulnerability to negative consequences of drunk driving will be associated with (a) less positive attitudes toward avoiding drinking and driving and (b) lower behavioral intentions to avoid drinking and driving.

Figure 1 shows the hypothesized model.

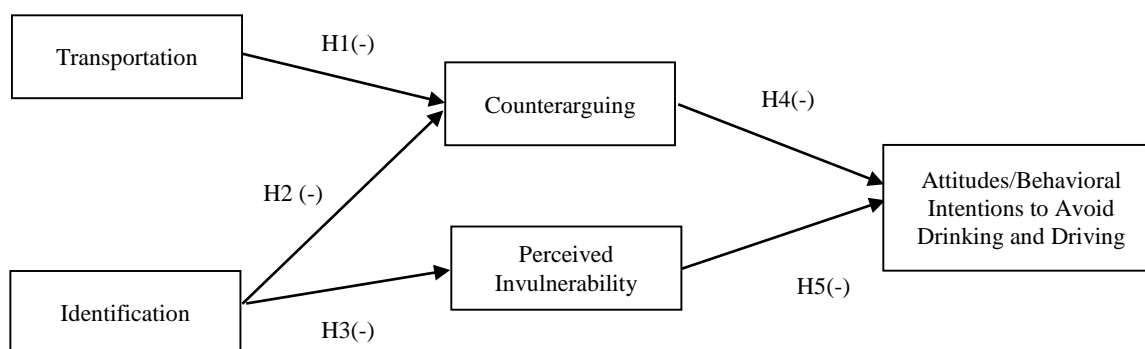


Figure 1. Predicted Model of the Relationships among Involvement, Resistance, and Attitudes and Intentions to Avoid Drinking and Driving

When Moyer-Gusé (2008) introduced the EORM, she suggested that there was a need for more research that explores viewers' involvement, resistance and persuasive outcomes in various viewing contexts. There exists research that has explored the persuasive process by comparing different features of programs: narrative vs. non-narrative programs (Moyer-Gusé & Nabi, 2010, 2011), and humorous vs. serious content (Nabi et al., 2007). Not only the features of the program, but also the type of media device may play a role in the persuasion process. The current study examined EORM in the personal television context; whether and how the model works in the personal television environment was analyzed. The results of this study can provide insight with respect to the persuasive effects of E-E messages when received via increasingly popular personal media devices.

Extending the model to include moral disengagement. As a second goal, this study explored how viewers' moral disengagement might moderate the persuasive process. As already explained, moral disengagement is a psychological process by which immoral actions are evaluated as less immoral or more socially acceptable (Bandura, 2002). Existing persuasion processing models, including the EORM, do not consider the morality of the characters with whom viewers identify. However, many entertainment programs feature characters doing immoral things, and even heroes/heroines are often engaged in bad or risky behaviors (Krakowiak & Tsay, 2011). Of particular relevance to narrative persuasion, persuasive messages often use models who experience the adverse consequences of "bad" behaviors. Evaluations of a media character's risky or bad behaviors may impact the role that viewers' identification with the character plays in overcoming resistance to the persuasive subtext. Therefore, it is important to consider how viewers evaluate media characters' negative behaviors and how those evaluations influence the persuasive process in E-E programs. The current study suggested integrating moral disengagement into the EORM, as a moderator of the effects of identification on resistance.

Research has demonstrated that viewers form favorable or unfavorable dispositions toward a character based on continuous monitoring and moral evaluation (Zillmann, 2000; Zillmann & Cantor, 1977). Viewers' evaluation is based on their personal standard of morality because behaviors deemed morally acceptable by some people can be considered unacceptable by others (Raney, 2004; Shafer & Raney, 2012). When viewers monitor and judge a morally ambiguous character who engages in both good and bad behaviors in an E-E program, some viewers accept or justify the character's negative behaviors whereas others do not accept those behaviors. Therefore, viewers' moral standard and level of disengagement toward negative or

bad behaviors may play a key role in viewers' responses to a character and acceptance of the character's attitude and behaviors.

Bandura, Barbaranelli, Caprara, and Pastorelli (1996) developed a scale to measure the trait of moral disengagement in children and adolescents. While the moral disengagement trait scale assesses people's moral standards in various situations, some researchers in media enjoyment studies have suggested examining moral disengagement toward specific behaviors of media characters (Krakowiak & Tsay, 2011; Krakowiak & Tsay-Vogel, 2013; Shafer & Raney, 2012). Through both the moral disengagement trait and moral disengagement toward a character's risky behavior, the media character's bad or risky behavior (e.g., drunk driving) may be interpreted as an acceptable or less unacceptable action. Furthermore, this moral disengagement may influence the persuasive process by which identification overcomes resistance to a message designed to discourage negative behavior (e.g., an anti-drunk driving message). One possibility is that greater identification with a character who engages in bad behaviors may increase viewers' resistance due to moral disengagement. For example, if a character with whom viewers identify engages in drunk driving, viewers may be more likely to accept and justify the character's actions leading to an increase in resistance against the main message to discourage drinking and driving. On the other hand, if viewers are not inclined to morally disengage, identification with the character -- and vicarious experience of the adverse consequences of drunk driving -- should reduce resistance. However, the role that moral disengagement may play in the process is more complicated when the character is transitional or morally ambiguous. In the episode used in this study, the main character, David, was in crisis due to his drunk driving, but he regretted his behavior after experiencing a difficult time. Because David is arguably a transitional character, moral disengagement may have different

effects for viewers who identify with David more strongly when he engages in drunk driving than when he regrets his risky behavior.

This study suggested viewers' moral disengagement as a moderator variable that may influence the process by which identification affects resistance. Although it seems likely that moral disengagement will moderate the relationship between identification and resistance, there is little empirical evidence to support the possibility. Therefore, this study posited the following research question rather than predicting a hypothesis.

RQ1: Will moral disengagement moderate the relationship between identification and two types of resistance, specifically (a) counterargument and (b) perceived invulnerability, and if so, how?

Figure 2 shows the hypothesized model.

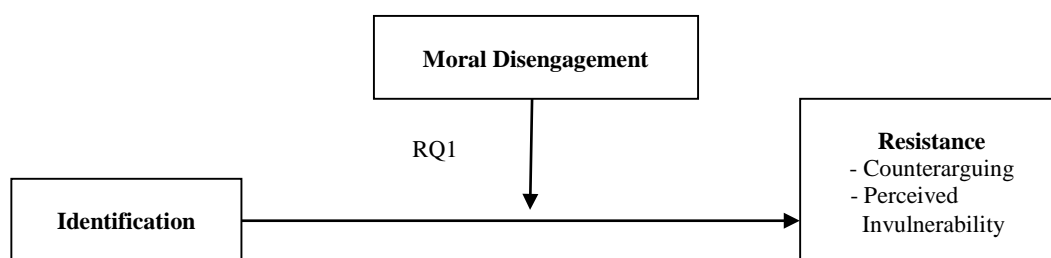


Figure 2. Predicted Model of the Relationships among Identification, Moral Disengagement, and Resistance

Perceptions and involvement in the personal television viewing environment. In addition to examination of the persuasion process in personal television viewing, this study explored viewers' perceptions to the experience of personal television viewing. Furthermore, how the perceptions are associated with viewers' narrative involvement was explored.

Small screen size, close proximity to the screen, holding the device, and using headphones are main characteristics of typical personal television. In the traditional television environment, researchers have generally found that screen size is associated positively with viewers' immersion and involvement (Lombard et al., 2000; Lombard & Ditton, 1997). In those

studies, researchers usually examined non-narrative involvement using a series of images or non-narrative video clips. For example, researchers showed viewers rapid point-of-view moments, such as riding a roller coaster and flying a fighter jet. In these dynamic scenes, a big screen can be an important factor in increasing the viewers' involvement, but the importance of screen size may differ when watching a television program with a narrative structure. When watching a narrative program, viewers are usually immersed in the story or characters rather than in a single scene. Narrative viewers are often transported into the story and identify with one or more specific characters. In a narrative, therefore, the effects of screen size may be different. For example, the closeness to media characters in mobile television viewing may foster viewers' involvement with a character although the screen is small. Indeed, the screen is located close to the viewer in personal television viewing contexts and proximate viewing distance has been found to be an important factor in viewers' emotion and attitudes towards a program (Bellman et al., 2009; De Cesarei & Codispoti, 2008; Lin et al., 2007). The closeness to the screen in personal television is due to the fact that viewers are holding the device while they use it. The experience of holding a device may increase users' feeling of intimacy and interaction (Bracken & Pettey, 2007; Heikkinen et al., 2009), but the task of holding may reduce viewers' involvement because it can increase users' tiredness (Nordin et al., 2014; Vorbau et al., 2007). Finally, when watching television via a hand-held device, viewers usually wear headphones. Using headphones may increase personal television viewers' attention and immersion by diluting outside sounds (Bracken & Pettey, 2007; Kallinen & Ravaja, 2007; Witmer & Singer, 1998).

In this study, all participants viewed a dramatic narrative on the same personal media device, an iPad. As discussed above, personal television viewing provides viewers with a unique experience. Some viewers may feel comfortable with the characteristics of personal media

devices when they watch a television drama, whereas other viewers may be dissatisfied with the small size or the need to hold the device. Because research on personal television viewers still remains in the initial stage, more studies need to explore people's responses to and perceptions of personal television viewing, and how the perceptions are associated with involvement to the program. In this vein, this study explored broadly people's responses to the personal television viewing experience, using an open-ended question asking what aspects of the viewing experience on the iPad they liked or disliked compared to traditional television viewing. In addition, closed-ended items assessed viewers' comfort with the device's screen size, distance to the screen, using headphones, and holding the device. These measures were then related to viewers' degree of involvement while viewing the narrative. The following research questions were posed:

RQ2: What are participants' responses to the experience of viewing a television drama on an iPad?

RQ3: How will participants' level of comfort with characteristics of the iPad while viewing be associated with their involvement, including transportation and identification?

3. METHODS

This chapter describes how the research was conducted. It describes the sample and the procedure of recruiting participants, methods for collecting data, and the measures used on the survey. When scales were calculated to make each variable, missing scores were replaced with the mean of the scales.

3.1 Research Design

The main purpose of the current research is to explore personal television viewers' involvement and its persuasive effects, when they watching a television drama on drinking and driving. An experiment study was conducted with college students at a large urban U.S. university. College students are one of the demographic groups who most often watch videos via personal media devices, and who also are most involved in drinking and driving (U.S. Department of Health and Human Services,2013). This study was consists of two parts: In the first part, participants were asked to complete the pre-exposure survey (Appendix B) online, and then to sign-up for a lab session. The second part of study was administrated in a lab, where participants watched an episode of a crime drama via an iPad, and completed the post-exposure survey (Appendix C) through the iPad.

Before the main experiment was performed, a pilot test was administrated with college students. The overall process of the pilot test was the same as that of the main study, but there was additionally a group discussion at the end of each viewing session in the lab. Participants discussed together about the process of the study, the survey questionnaire, and the quality of the video.

3.2 Participants

Participants of this study were recruited from introductory level of communication classes in Georgia State University. A total of 719 students participated in the first survey, but only 435 students completed the second part of study. After checking the identification matching between the first and second part of study, 21 students who did not match in both tests were excluded and total of 414 participants were remained. From these remaining participants, a total of 60 students were also excluded due to following reasons: First, one student who was younger than 18 (17-years old) and one student who was 76-years-old were excluded. Second, 15 participants were deleted because they answered one or more questions incorrectly in the questions designed to check if participants watched the video fully. On the other hand, 42 students who did not have any type of driver license were also excluded because the intentional behaviors on drunk driving is an important outcome variable in this study. Finally, one person who failed to answer any of key variables were excluded.

The final sample used for analysis consisted of 354 college students (253 female, 101 male). The age of participants ranged from 18 to 50 years ($M = 20.4$, $SD = 4.24$). A total of 268 participants (75.7%) were younger than 21 years, the legal drinking age in the U.S., whereas 86 participants (24.3%) were 21 or older. Almost half of participants reported themselves as African-American (44.9%), 20.3% as Caucasian, 9.0% as East Asian/Pacific Islander, 7.3% as Hispanic, 6.5% as South Asian, 10.5% as multiracial and, 1.4% as "other. Respondents reported around 50 different academic majors.

Regarding watching personal television, a large portion of total respondents (74.3%) indicated that they use laptop computer often or always when watching video content. More than half of respondents (54.5%) also reported that they use mobile phone often or always when

watching video content, but only 17.2% of respondents answered that they use a tablet often or always when watching video content. Respondents also reported how often they had a drink containing alcohol: never (39.3%), monthly or less (33.3%), two to four times a month (19.8%), or two to three times a week (7.6%). Over three-quarters (75.7%) of the participants had their own car and more than half of the participants (56.8%) reported that they drive four or more times a week. Regarding the experience of drinking and driving, 10.7% of respondents reported that, in the previous month, they had driven after drinking at least one or two drinks within previous hour. Relatively few participants (5.1%) reported that they themselves had ever been a victim of drunk driving. But when the experiences of friends and family members were also considered, over one third of the sample (39.5%) reported that they and/or their friends or family members had ever been a victim of drunk driving.

3.3 Procedure

This study recruited college students at a large urban U.S. university. An email including a summary of the research was sent to professors who teach introductory level courses in communication in order to request permission to invite the students for this research. After receiving a professor's permission, an invitation email was sent to students who were taking the professor's class. For participating, students received two percent of the total points in one course as extra credit. For those who decided not to participate but still wanted to earn the extra credit, tasks of reviewing two articles related to their course and writing one-page response papers for each article were provided. Two students chose this alternative extra credit option.

In the pre-test, participants were asked to read an informed consent form for the study and indicate their consent by checking "I agree." They then completed an online questionnaire

measuring their moral disengagement trait, media usage, and some attitudes and behaviors related to drunk driving. Questions about drunk driving were embedded in a longer list of questions related to other health issues, such as organ donation and cosmetic surgery. In order to match the pre-survey and the post-survey, respondents were asked to make a special identification code consisting of the last two letters of their first name, the last two letters of their last name, and the month of their birth. On the last page of the pre-test, participants signed up for a lab appointment. No more than 10 participants were scheduled in each experiment slot. The pre-exposure questionnaire appears in Appendix B.

Next, when participants arrived at the lab, they were each given an iPad to watch the episode and complete the post-exposure questionnaire. The screen size of the iPad currently in use is 9.7 inches diagonal. Viewers sat and held the device in their hands or put the device in their laps or on the table. Participants wore earphones while watching the episode. In order to reduce distractions during viewing time, participants were asked to turn off any other electronic devices.

After they had finished watching the episode, participants completed a self-report questionnaire online, using the iPad. Much of the survey assessed respondents' involvement and resistance to the messages of episode, and their attitudes towards, and intentions to engage in, driving after drinking. Respondents also were asked how they perceived the unique characteristics of the iPad on which they had just watched the episode. The post-exposure questionnaire is in Appendix C. The experimental session took about 50 minutes, including viewing time (approximately 25 minutes) and completing the online survey.

3.4 Material

The narrative stimulus was edited from an episode entitled “Blackout” in the TV Series, *BoomTown*, which aired on NBC in 2002-2003. As a television crime drama, *BoomTown* depicts crime in Los Angeles from various viewpoints, including the police, detectives, witnesses and the media. Each episode of this series illustrates how the different perspectives are interconnected. The main story of “Blackout” (2003) is about one of the main characters of the series, David McNorris. He is an ambitious Deputy District Attorney and he went through a divorce recently. In the episode, one night David argued with his girlfriend and drank a lot in a bar. The next morning, he woke up in his car parked in front of his house, and there was a huge dent and a blood stain on the front of his car. He was afraid because he could not remember what happened the night before. On the way to go to work, he heard a police report about a hit-and-run the previous night. He panicked because he could not remember but realized it was possible that he committed the hit-and-run during the period of his blackout. David became severely fearful of losing his career, relationships and everything else in his life due to the accident, and he seriously regretted driving drunk. He considered removing the blood stain on his car, but he finally decided not to conceal this evidence. At the end of the episode, David listened to a voice message that he left on his girlfriend’s phone while he was driving the previous night, and realized that what he hit was not a human being but an animal.

The original episode included two crimes: drinking and driving and a possible kidnapping, but due to the focus of this study, the kidnapping story was deleted. The complete episode was 42 minutes and 5 seconds long, and it was edited to 25 minutes 48 seconds long for this study. This episode was chosen because the main story deals with drinking and driving, but the persuasive message is embedded in the narrative; no explicit anti-drunk driving message is

articulated. More importantly, the main character of this story is not a victim but a perpetrator of drunk driving. Previous research exploring the persuasive process of E-E narratives on drinking and driving has often used episodes about the victims of drunk driving and these victims were not main characters of the story (Moyer-Gusé et al., 2012; Stitt & Nabi, 2005). The current study examined EORM with a character engaged with risky behavior, and the episode focused on a leading character who drove after drinking.

3.5 Pilot Test

Before conducting primary data collection, a pilot test was conducted in order to test the quality of the edited episode and the quality of the measurements. As in the main study, the pilot study also recruited college students. All procedures were administered in the same way as the main study: first an online survey, then a lab session for watching the video and completing the second survey. But, additionally, pilot subjects participated in a group discussion after completing the second survey. A total of five group discussions were conducted. The discussion solicited participants' feedback on the viewing experience and survey questions. The pre- and post-exposure questionnaires (Appendix D & Appendix E) were almost the same as those used in the main study, with the exception that slight modifications were made based on feedback in the pilot study, as explained below.

In the pilot test, a total of 46 students completed the first survey, but only 26 students participated in the lab session for the second part of study. After matching the identification between pre and post exposure, four participants whose identifications did not match were excluded and the final sample for the pilot study was 22 college students (16 female, 6 male). The participants ranged in age from 18 to 27 years old ($M = 19.5$, $SD = 2.35$).

In the group discussion, participants were asked whether they had any trouble watching the video and answering the survey questions on the iPad. Only one participant expressed discomfort in using iPad for completing the online survey due to the small screen. Most participants, however, mentioned they had no problem in using iPad for both watching the episode and answering the questions. Based on the discussion of the pilot study, the main study was conducted with the same type of iPad.

Pilot test responses regarding counterarguing, one of the key variables on the post-exposure questionnaire, were of particular interest. Counterarguing was measured with questions asking how much respondents agreed or disagreed with the main message of the episode. These questions were preceded by an open-ended question that asked what participants thought was the main message of the episode, in order to validate the closed-ended measure of counterarguing. Most pilot test participants (90.9 %) mentioned “no drinking and driving” or the responsibility of bad behaviors, including drinking and driving, as the main message of the episode. So, the open-ended question was also used in the main study to help ensure that responses on the counterarguing scale referred to the main message of the episode. However, pilot test participants’ responses to the items on the counterarguing scale suggested that they were confused by inclusion of items that assessed both agreement with the message (which were reverse coded) and disagreement with the message, possibly because they alternated on the scale. This may have been especially confusing because the items were rated on Likert scales, which ask for extent of agreement or disagreement with each item. Thus, to help respondents distinguish the items, the order of the closed-ended items for counterarguing was slightly changed in the main study, so that the two items assessing agreement with the main message came first, followed by the three items assessing disagreement with the main message

3.6 Pre-Exposure Measures (Appendix B)

Media Usage. Items measured the time of watching video content (e.g., TV programs and films) on a typical weekday and on a typical weekend day respectively. In addition, the survey measured how often respondents typically use various types of media devices, including television, personal computer, laptop computer, tablet, and mobile phone, to watch video content. Respondents rated the frequency of using each type of device among never, rarely, sometimes, often or always.

Moral disengagement trait. An initial scale to measure the moral disengagement trait was developed by Bandura and colleagues (1996) specifically for use with children and adolescents. Recently, Moore and colleagues (2011) developed a moral disengagement trait measure for the general population of adults, and the present study used this scale. The items represent Bandura's (2002) different strategies of moral disengagement. The measure includes eight items, such as "It is okay to spread rumors to defend those you care about" and "Taking personal credit for ideas that were not your own is no big deal." Respondents rated the items on 7-point Likert scales (0= disagree strongly, 6= agree strongly), and the eight items were averaged. Reliability was acceptable ($\alpha = .74$).

Selected Items Measuring Attitudes and Behavioral Intentions Regarding Drunk Driving. In order to measure participants' existing attitudes and behavioral intentions to avoid drunk driving, respondents were requested to answer four items selected from the scales to be used in the post-exposure questionnaire. Two items measured attitudes ("I believe it is okay to drink and drive if I had only one drink with a meal," and "If my blood-alcohol content is in the legal range, driving after drinking is okay") and two items measured behavioral intentions ("It is unlikely that I would drive after consuming alcohol," and "It is likely that I would drive after

drinking alcohol if I could find no other way home”). These four items were embedded in a longer list of items related to other health issues, in order not to provide participants with pre-knowledge about the focus of this study. Respondents rated the items with 7-point Likert scales (0= disagree strongly, 6= agree strongly). The detailed explanation of the scales is provided in the post-exposure measures, and all items on the scales were measured in the post-survey.

Social Demographics. Participants’ gender, age, ethnicity, and major were measured for their social demographical information.

3.7 Post-Exposure Measures (Appendix C)

Transportation. To assess involvement in the episode, respondents completed nine transportation scale items adapted from Green and Brock (2000)’s transportation scale. Because Green and Brock developed the transportation scale for research on narrative readers, one item (“while I was reading the narrative, I could easily picture the events in it taking place”) did not fit for this study focusing on narrative television viewers, and thus was not used. Another item (“the events in the narrative have changed my life”) also was not used because it seems to measure the long-term consequence of transportation rather than viewers’ transported states. The final number of items used for this study was nine. Examples include: “I was mentally involved in the episode watching it” and “The episode affected me emotionally.” These nine items were rated on 7-point Likert scales (0= disagree strongly, 6= agree strongly) and averaged to form a transportation scale. The scale was reliable ($\alpha = .70$).

Identification. Respondents’ identification with the main character of the episode, David, was measured by eight items suggested by Cohen (2001). The items were rated on 7-point Likert scales (0= disagree strongly, 6= agree strongly). Examples include: “I was able to

understand the events in the episode in a manner similar to that in which David understood them” and “I think I have a good understanding of David.” These items were averaged and internally reliable ($\alpha = .85$). From Cohen’s original scale, two items were not included in this study: “while viewing the program, I wanted the main character to succeed in achieving his goals” and “When the main character succeeded I felt joy, but when he failed, I was sad.” These two items were deleted because the episode does not deal with the main character’s goal achieving.

Counterarguing. Respondents completed a closed-ended measure of counterarguing consisting of five items adapted from previous research (Moyer-Gusé et al., 2011; Nabi et al., 2007). Items were rated on 7-point Likert scales (0= disagree strongly, 6= agree strongly) and averaged to create a scale ($\alpha = .69$). Examples include: “While watching the episode, I found myself actively disagreeing with what was being presented” and “I was looking for flaws of the episode’s argument.” In addition, prior to answering the closed-ended counterarguing items, respondents were asked two open-ended questions related to counterarguing: First, what reported what they believed was the main argument of the episode, and second, they listed the thoughts they had about that argument during the episode.

Perceived invulnerability. This measure was adopted from perceived vulnerability measures in previous research on drinking and driving (Greening & Stoppelbein, 2000). Using the stem “If you drive after drinking, to what extent do you believe you are at...,” five items of possible risks are asked including receiving a citation, being arrested, being in a motor vehicle accident, dying in a motor vehicle accident, and serving time in jail. Items were rated on a 7-point scale (0= no chance, 6= definitely would happen) and were reverse-coded to assess the

perceived invulnerability. All items were averaged to form a scale, and the scale was highly reliable ($\alpha = .93$).

Attitude toward avoiding drinking and driving. In order to assess participants' attitude toward avoiding drinking and driving, 12 items were used from Attitudes on Drinking and Driving Scale (ADDS) developed by Jewell, Hupp, and Luttrell (2004). The original ADDS consists of 15 items, but three questions measuring the perceived acceptability of driving different distances (short, medium, or long) while drunk were not included in this study. Using the stem "I believe it is okay to drink and drive if," 12 different rationalizations for drinking and driving were asked. An example of an item is "I believe it is okay to drink and drive if it is an unplanned emergency." Respondents rated the items with 7-point Likert scales (0= disagree strongly, 6= agree strongly) and all items were reverse-coded to measure attitude toward avoiding drinking and driving. All items were averaged to form a scale ($\alpha = .92$).

Behavioral intention to avoid drinking and driving. For the assessment of participants' intention to not engage in drinking and driving, four items were adapted from Marcil, Bergeron, and Audet (2001). Respondents first read a scenario describing a potential drinking and driving situation: "Imagine yourself driving to a party or bar. During the evening, you consume alcohol and at the end of the night you have to go home, but are not sure whether your blood alcohol level exceeds the legal limit." Then, they rated items using 7-point Likert-type scales (0= extremely unlikely, 6= extremely likely). Examples include, "I will drive after consuming alcohol," and "I will drive a short distance after consuming alcohol." In order to measure the intention to avoid drinking and driving, all items were reverse coded and averaged. The reliability was very high ($\alpha = .96$).

Moral disengagement toward a character's drunk driving. The extent to which the drinking and driving of the main character, David, was justified by participants were measured. Based on Bandura (2002)'s types of moral disengagement, six items to measure participants' moral disengagement toward the main character's drinking and driving were developed. An example item is: "David should not be blamed since he did not hit any human body." All items were measured using 7-point Likert scales (0= disagree strongly, 6= agree strongly) and averaged. The reliability of items was slightly low ($\alpha = .67$).

Current drinking behavior. Respondents' current drinking practices were measured using the alcohol use disorders identification test (AUDIT) developed by Saunders, Aasland, Babor, De La Fuente, and Grant (1993). This study borrowed the first three items of AUDIT, which measure frequency of drinking, typical quantity of drinking, and frequency of heavy drinking. Respondents rated how often they had a drink containing alcohol from "never (0)" through "four or more times a week (4)." Based on Babor, Higgins-Biddle, Saunders, and Monteiro (2001)'s suggestion, a "drink" was defined as "a can or bottle of beer, a glass of wine, a wine cooler, or one cocktail or shot of hard liquor, such as scotch, gin, or vodka" Response choices for quantity on a typical day when they were drinking were from "one or two (0)" to "ten or more drinks (4)". The frequency of heavy drinking was measured by asking "how often do you have 6 or more drinks on one occasion" and was rated from "never (0)" through "daily or almost daily (4)." The sum of the scores of all three questions was used for the variable of current drinking behavior ($\alpha = .80$).

Past experience with drinking and driving. In order to measure respondents' past experience of drinking and driving, this study adopted two items from the drinking and driving behavior scale developed by Jewell, Hupp and Segrist (2008). These are open-ended questions

on how many times respondents have driven in the past month after drinking “one or two drinks,” and “three or more drinks” within the previous hour. Again, a “drink” was considered “a can or bottle of beer, a glass of wine, a wine cooler, or one cocktail or s shot of hard liquor, such as scotch, gin, or vodka.” In addition, whether they had been cited or arrested for drunk driving in the past 5 years was asked. Finally, questions asked whether they had ever been a victim of drunk driving and whether they had any friends or family members who had been victims of drunk driving.

Viewing comfort of the iPad. As a type of response to viewing experience, how comfortable personal television viewers were while watching an episode on an iPad was measured. This assessment was adapted from Bellman and colleagues (2009). These authors measured overall viewing comfort in their study, but the current study measured viewing comfort with four characteristics of personal television, including screen size, viewing distance, using headphones, and holding the device. Respondents rated their comfort using 7-point Likert-type scales (0= no-definitely not comfortable, 6= yes-definitely comfortable).

Episode recall. Because the narrative video is the key stimulus in this study, it is important to check if participants watched the video fully. As a check to make sure that participants watched the full episode, four questions were asked whether or not different scenes occurred in the episode. Two items that happened in the story and two items that did not happen were asked; participants answered yes or no to each. Those who answered one or more of these questions incorrectly were not included in the analyses.

Additional measures. In addition to measures relevant to examining the hypotheses and research questions, perceived realism was included on the questionnaire. This measure was

included for subsequent analyses, and was not examined in the research reported in this dissertation.

4. RESULTS

4.1 Overview of Analyses

The data were analyzed using the Statistical Package for Social Sciences (SPSS 22.0), and the Analysis of Moment Structures (AMOS 22.0) for the structural equation models.

The analyses for this study proceeded in four stages. First, preliminary analyses were conducted for descriptive information of critical variables and for checking the persuasiveness of the episode. Mean, standard deviations, and correlations of variables were provided. Paired t-tests were conducted to compare participants' pre-existing attitudes and behavioral intentions to avoid drunk driving to the same measures obtained after exposure to the episode. Second, to address H1 through H5, which examined the EORM in the personal television viewing environment, path analyses were conducted. Based on the path coefficients, the proposed hypotheses were tested. Third, RQ1, which suggested a moderating role for moral disengagement, was examined with a series of linear regressions predicting respondents' resistance (counterarguing and perceived invulnerability), with moral disengagement, identification, and the interaction term as independent variables. The two measures of moral disengagement (moral disengagement trait and moral disengagement toward the main character) were examined in separate regression analyses. Finally, in order to answer RQ2, which addressed viewers' responses to personal television viewing, two independent coders coded the responses of an open-ended question about the experience of viewing the episode on an iPad. The answers were coded for several aspects of personal television viewing. Frequencies of the responses were calculated, and examples of each category were shown when reporting the findings. RQ3, exploring the association between viewers' comfort feeling in the iPad viewing experience and

involvement, was addressed using partial correlations between the rated comfort items related to viewing the episode on a iPad and both transportation and identification.

4.2 Preliminary analyses

Descriptive statistics. Table 1 shows the means, standard deviations, and reliabilities (Cronbach's α) for the continuous variables. The correlations between critical variables in this study can be found in Table 2.

The skewness values of all main variables were less than absolute value 2 and the kurtosis values were less than absolute 7. So, the normal distribution was assumed in the variables (Kline, 2005; West, Finch, & Curran, 1995).

Table 1. Variable Means, Standard Deviations, and Reliabilities

	<i>M</i>	<i>SD</i>	<i>α</i>
Transportation	3.78	.90	.70
Identification with the Main Character	3.72	1.21	.85
Counterarguing	1.53	1.02	.64
Perceived Invulnerability	2.02	1.75	.93
Moral Disengagement Trait	.90	.74	.74
Moral Disengagement toward the Character's Drinking and Driving	1.62	.98	.67
Perceived Realism	2.94	1.23	.65
Current Drinking Behavior	1.79	2.08	.80
Attitude Toward Avoiding Drinking and Driving	4.79	1.24	.92
Behavioral Intention to Avoid Drinking and Driving	4.96	1.56	.96

Note. The range of possible scores for all measures, except Current Drinking Behavior, was 0 to 6. Current Drinking Behavior has the range of possible scores from 0 to 12. For Counterarguing, $N = 307$, for Moral Disengagement toward the Character's Drinking and Driving and Perceived Realism, $N = 353$, and for all other variables, $N = 354$.

Table 2. Zero-Order Correlations between Variables

	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Gender (0 = male, 1 = female)	-.15**	-.01	.04	-.01	-.02	-.03	-.08	.01	-.01	-.14**	-.18***	-.09	.04	.02
2. Race (0 = Black, 1 = other)		-.04	.15**	.05	.08	-.02	-.03	.18**	-.09	.19***	-.02	-.12*	-.06	.05
3. Age			.06	.19***	.10	.12*	.11*	-.08	.05	-.09	-.11*	.13*	-.10	-.12*
4. Current Drinking Behavior				.47***	.13*	-.03	-.05	-.05	.09	.08	-.02	.12*	-.33***	-.32***
5. Past experience of Drunk Driving (0 = no, 1 = yes)					.11*	.08	.04	-.01	.05	.00	.02	.14**	-.41***	-.43***
6. Victim of Drunk Driving oneself, friends, or family (0 = no, 1 = yes)						-.06	-.03	.07	-.08	.05	-.01	.12*	-.05	-.07
7. Transportation							.68***	-.15**	-.12*	.00	.08	.43***	.06	.02
8. Identification								-.13*	-.12*	.12*	.24***	.41***	.01	.00
9. Counterarguing									.09	.11*	.01	-.12*	-.01	.00
10. Perceived Invulnerability										.08	.04	-.08	-.21***	-.20***
11. Moral Disengagement Trait											.20***	-.00	-.19***	-.16**
12. Moral Disengagement toward Character's Drinking and Driving												.17**	-.22***	-.18**
13. Perceived Realism													-.04	-.09
14. Attitude Toward Avoiding Drinking and Driving														.74***
15. Behavioral Intention to Avoid Drinking and Driving														

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

Note. Gender, Race, Past experience of Drunk Driving, and Victim of Drunk Driving (DD) are dichotomous variables. Age is in years. Current Drinking Behavior has the range of possible scores from 0 to 12. The range of possible scores for all other measures was 0 to 6. For Counterarguing, $N = 307$; for Past experience of DD, $N = 349$; for Victim of DD, $N = 352$; for Race, Moral Disengagement toward the Character's Drinking and Driving, and Perceived Realism, $N = 353$; for all other variables, $N = 354$.

As Table 2 shows, compared to females, males scored higher on both the moral disengagement trait and moral disengagement regarding the character (David)'s drinking and driving. Older participants reported greater transportation, identification, and perceived realism, and lower moral disengagement toward the character's drunk driving. Younger participants were less likely than older ones to report past experience with drinking and driving, and also had greater intentions to avoid drinking and driving. African-American (Black) was the largest racial/ethnic group in the sample, so, this group was chosen as the reference group when creating a dichotomous race variable. Compared to other participants, African-Americans reported drinking less. They also reported lower perceived realism, and scored lower on the moral disengagement trait and engaged in less counterarguing.

Current drinking behavior was highly negatively correlated with the measures of attitude and behavioral intention to avoid drinking and driving. This means that the more participants drink, the lower their attitude and behavioral intention to avoid drunk driving. However, those who have driven after drinking in the past reported greater attitudes and behavioral intentions to avoid drunk driving, compared to those who have never driven drunk. Participants who had experienced victimization by drunk driving themselves or through friends or family members felt more perceived realism, but this variable was not correlated with any other key variables.

Transportation and identification were positively correlated with each other. They were also positively related to perceived realism, but negatively correlated with counterarguing and perceived invulnerability. Perceived invulnerability was negatively related with attitudes and behavioral intentions to avoid drinking and driving. Naturally, these two outcome variables (attitudes and behavioral intentions) were positively correlated with each other, and negatively related to moral disengagement trait.

Persuasive episode effects. In order to check whether the episode influenced participants' attitudes and behavioral intentions toward avoiding drunk driving, paired t-tests were conducted. The analyses compared participants' initial attitudes and behavioral intentions toward avoiding drunk driving (i.e., pre-exposure) to those after watching the episode (i.e., post-exposure). These comparisons used the four items from the attitude and behavioral intention scales (two items from each scale) that were measured in the pretest. Because items that reflected acceptance of drunk driving were reverse coded, higher scores on each item indicated more favorable attitudes toward not driving drunk and stronger intentions to avoid drunk driving. Results of these analyses are displayed in Table 3.

Table 3. Paired t-tests Examining the Persuasive Effect of Episode Exposure

		Pre- Exposure Mean (SD)	Post- Exposure Mean (SD)	<i>t</i> -value
Attitude Toward Avoiding Drunk Driving	I believe it is okay to drink and drive if I had only one drink with a meal. (reverse-coded)	3.90 (2.09)	3.33 (2.28)	5.52***
	If my blood-alcohol content is in the legal range, driving after drinking is okay. (reverse-coded)	4.67 (1.82)	3.93 (1.99)	7.71***
Behavioral Intention to Avoid Drunk Driving	It is unlikely that I would drive after consuming alcohol.	4.82 (1.76)	5.05 (1.57)	-2.50*
	It is likely that I would drive after drinking alcohol if I could find no other way home. (reverse-coded)	4.72 (1.68)	4.79 (1.77)	-.81

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

Note. The range of possible scores for all measures was 0 to 6.

The pre-exposure and post-exposure measures of both attitude items were significantly different $t(347) = 5.52, p < .001$; $t(351) = 7.71, p < .001$, but in the opposite of the expected direction. After viewing the episode, respondents considered it more acceptable to drive after one drink and to drive after drinking with a blood alcohol level in the legal range. Only one of the

items measuring behavioral intentions to avoid drunk driving differed from before to after watching the episode: “It is unlikely that I would drive after consuming alcohol.” As expected, participants reported greater intentions to avoid driving after consuming alcohol after viewing the episode, $t(348) = -2.50, p < .05$. The before-after difference in the second item, “It is likely that I would drive after drinking alcohol if I could find no other way home” was not significant, $t(349) = -.81, p > .05$. The unexpected effects for the attitude items are difficult to interpret, but may indicate a problematic effect of seeing drinking and driving depicted onscreen. Perhaps after viewing the episode in which the main character drove while extremely drunk, respondents considered driving after drinking under certain circumstances (described in the two attitude items) more acceptable.

In order to investigate whether viewers’ identification, transportation or moral disengagement toward a character’s drunk driving influenced the reduction in favorable attitudes toward avoiding drinking and driving, two additional regression analyses were conducted. The analyses predicted changes scores for each of the two attitude measures (post-exposure score minus pre-exposure score). In each analysis, control variables were entered first, followed by the three key predictor variables. However, no results of the supplemental analyses were significant.

4.3 EORM in Personal Television

As the first goal of the study, the EORM in the personal television environment was analyzed. In order to verify H1 through H5, the model included transportation, identification, counterarguing, perceived invulnerability, and attitudes and behavioral intentions related to avoiding drunk driving, as illustrated in Figure 1. To test the hypotheses, path analyses were performed using the maximum likelihood estimation procedure with AMOS 22, setting the error

term for each endogenous variable at a mean of 0 and a variance of 1. Chi-square statistics, the Root Mean Squared Error of Approximation (RMSEA), and the Comparative Fit Index (CFI) were considered as the goodness of fit indices. In previous studies (Holbert & Stephenson, 2008; Hu & Bentler, 1999; Jöreskog & Sörbom, 1989), the recommended fit criteria was a non-significant Chi-square statistic, 5 or less of χ^2/df ratio, .90 or greater of CFI, and .06 or less of RMSEA.

In order to improve the measure of counterarguing, an open-ended question asking respondents what they thought was the main argument of the episode was included prior to the closed-ended counterarguing items. Most participants explicitly mentioned “Do not drink and drive” or referred to the fact that drinking addiction or alcoholism has dangerous or deadly consequences as main argument. However, a substantial minority of answers did not specifically refer to potential deadly consequences of drinking, but more broadly indicated that actions/choices/decision can have bad consequences and that people should take responsibility for their actions/choices/decisions. These answers appeared to reflect the main message of the episode. So answers that included either of these basic messages, and that did not primarily offer an excuse or justification for bad actions were considered as consistent with the main message of the episode. Two independent coders classified the answers and Cohen’s Kappa was .92. Disagreements were resolved by discussion between coders. Only respondents whose answers were coded as consistent with the main message were used in the further analyses including counterarguing variables. So, the sample for analyses that involved counterarguing (including the path analyses and regression analyses) was 307 (86.7% of total sample).

Two different models were analyzed with the two different post-exposure outcome variables: attitude toward avoiding drunk driving, and behavioral intentions to avoid drunk

driving. Two exogenous variables (transportation and identification) and two mediating constructs (counterarguing and invulnerability) were the same in both models.

The two outcome variables (attitudes and behavioral intention to avoid drunk driving) were highly correlated with each other ($r = .76, p < .001$). The extent to which these analyses support H1 through H5 will be discussed after the two models are presented. The zero order correlations of the variables were reported in Table 2.

Table 4. Zero-Order Correlations between Variables in the Path Model

	2	3	4	5	6
1. Transportation	.67***	-.15**	-.13*	.06	.06
2. Identification		-.13*	-.12*	.00	.02
3. Counterarguing			.08	.05	.05
4. Perceived Invulnerability				-.17**	-.18**
5. Attitude Toward Avoiding Drinking and Driving					.76***
6. Behavioral Intention to Avoid Drinking and Driving					

* $p < .05$, ** $p < .01$, *** $p < .001$
Note. For all variables, $N = 307$

For the first model including attitude toward avoiding drunk driving as the outcome variable, the fit statistics are presented in Table 5, and the Figure 3 shows the path model.

Table 5. Standardized Structural Estimates for Model 1

Path	Standardized Estimates	t-value
H1. Transportation → Counterarguing	-.10	-1.33
H2. Identification → Counterarguing	-.06	-.85
H3. Identification → Invulnerability	-.12	-2.11*
H4. Counterarguing → Attitude toward Avoiding Drunk Driving	.08	1.18
H5. Invulnerability → Attitude toward Avoiding Drunk Driving	-.17	-3.01**

* $p < .05$, ** $p < .01$, *** $p < .001$
 $\chi^2 = 3.34, df = 3, p = 0.34, \chi^2/df = 1.11, CFI = 1.00, RMSEA = .02$

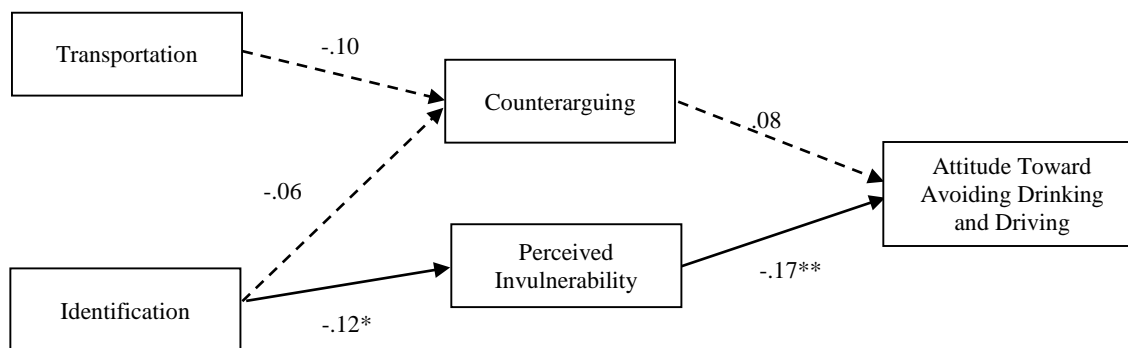


Figure 3. Path Model 1: Predicting Attitude Toward Avoiding Drinking and Driving

The path analysis results indicated that the model fit the data well, $\chi^2 (3, N = 307) = 3.34$, $p = .34$; $\chi^2/df = 1.01$; CFI = 1.11; RMSEA = .02.

For the second model including behavioral intentions to avoid drunk driving, the path analysis results indicated that the model fit the data well, $\chi^2 (3, N = 307) = 2.57$, $p = .46$; $\chi^2/df = .86$; CFI = 1.00; RMSEA = .00. The fit statistics for the second model are presented in Table 6, and the Figure 4 shows the path model.

Table 6. Standardized Structural Estimates for Model 2

Path	Standardized Estimates	t-value
H1. Transportation → Counterarguing	-.10	-1.33
H2. Identification → Counterarguing	-.06	-.85
H3. Identification → Invulnerability	-.12	-2.11*
H4. Counterarguing → Behavioral Intentions to Avoid Drunk Driving	.06	1.13
H5. Invulnerability → Behavioral Intentions to Avoid Drunk Driving	-.18	-3.19***

* $p < .05$, ** $p < .01$, *** $p < .001$
 $\chi^2 = 2.57$, $df = 3$, $p = .46$, $\chi^2/df = .86$, CFI = 1.00, RMSEA = .00

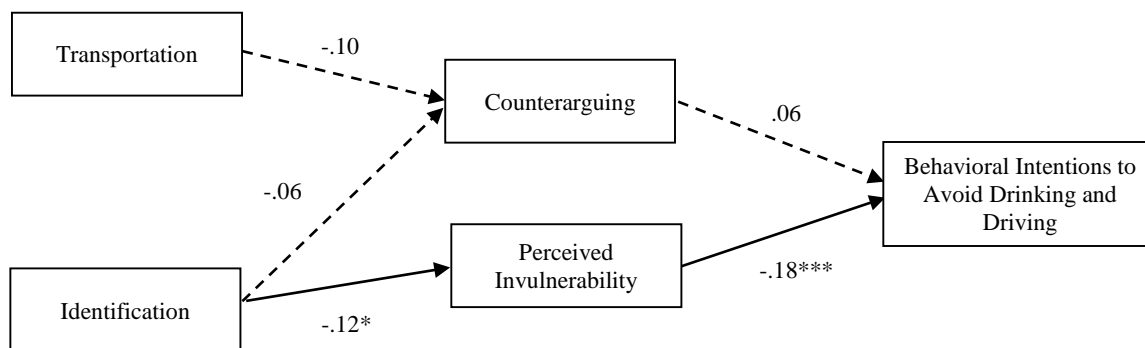


Figure 4. Path Model 2: Predicting Behavioral Intentions to Avoid Drinking and Driving

Hypotheses 1 and 2 predicted that transportation and identification would be negatively associated with counterarguing. In the two path analyses, neither transportation nor identification were related to counterarguing (transportation, $\beta = -.10$, $p > .05$; identification, $\beta = -.06$, $p > .05$). Therefore, hypotheses 1 and 2 were not supported.

According to hypothesis 3, identification would be negatively related to perceived invulnerability. This prediction was supported in the path models, $\beta = -.12$, $p < .05$.

Hypothesis 4 predicted negative relationships between counterarguing and two outcome variables: attitudes toward avoiding drunk driving, and behavioral intentions to avoid driving drunk. None of these relationships were significant. Counterarguing was not related to attitudes toward avoiding drunk driving ($\beta = .08$, $p > .05$), or to behavioral intentions to avoid drunk driving ($\beta = .06$, $p > .05$). Therefore, hypothesis 4 was not supported by the path analyses.

Hypothesis 5 predicting that perceived invulnerability would be negatively associated with both measures of attitudes/ behaviors toward avoiding drunk driving. This hypothesis was supported; both two models show negative associations between invulnerability and the outcome variables (attitudes toward avoiding drunk driving, $\beta = -.17$, $p < .01$; behavioral intentions to avoid driving drunk, $\beta = -.18$, $p < .01$).

4.4 Extended Model Analyses

An important theoretical goal of this research is to suggest an extended model including moral disengagement as a moderator of the relationship between identification and resistance (RQ1). Resistance included two variables, counterarguing and perceived invulnerability. To investigate the extended model, linear regression analyses were conducted predicting counterarguing and invulnerability. Moral disengagement was measured with two different variables: moral disengagement trait and moral disengagement toward a main character (David)'s drinking and driving. Thus four different analyses were used to separately examine each measure of moral disengagement as a potential moderator of the relationship between identification and the two measures of resistance.

In all regression analyses, a measure of moral disengagement and identification were entered as predictors, followed by the interaction between identification and moral disengagement in the final step of the equation. Gender, race (Black vs. others), age, current drinking behavior, and past experience of drunk driving were included as control variables. The moral disengagement measures and identification were all mean-centered for the analyses.

Of the four regression analyses, none revealed a significant interaction between identification and moral disengagement. But in the regression analysis predicting counterarguing by the interaction between identification and moral disengagement toward David's drinking and driving, a marginally significant interaction effect was observed. The results of this regression are displayed in Table 7.

Table 7. Regression Predicting Counterarguing by Identification and Moral Disengagement toward David's Drinking and Driving

	b	SE	beta	R ² change
1. Controls				.05*
Gender (0 = male, 1= female)	.08	.13	.03	
Race (0 = Black, 1= others)	.40	.12	.20***	
Age	-.02	.01	-.09	
Current Drinking Behavior	-.05	.03	-.09	
Past Experience of Drunk Driving (0 = no, 1 = yes)	.13	.22	.04	
2. Main Effects				.02+
Identification	-.11	.05	-.13*	
Moral Disengagement toward David	.04	.06	.04	
3. Interaction				.01+
Identification x Moral Disengagement toward David	.09	.05	.11+	
Adjusted R ² = .05, <i>F</i> (8,292) = 2.94**				
+ <i>p</i> < .10, * <i>p</i> < .05, ** <i>p</i> < .01, *** <i>p</i> < .001				
<i>Note.</i> b in the table means unstandardized regression coefficients at entry and beta is standardized coefficients at entry. Moral Disengagement toward David and Identification were recalculated to be mean-centered.				

Although the interaction only approached significance, it was explored further to obtain insight into the possible role of identification in counterarguing. Preacher, Curran, and Bauer's (2002) multiple linear regression interaction utility was used to probe the interaction effect. Figure 5 displays the simple slopes at the three levels of moral disengagement with David's drinking and driving.

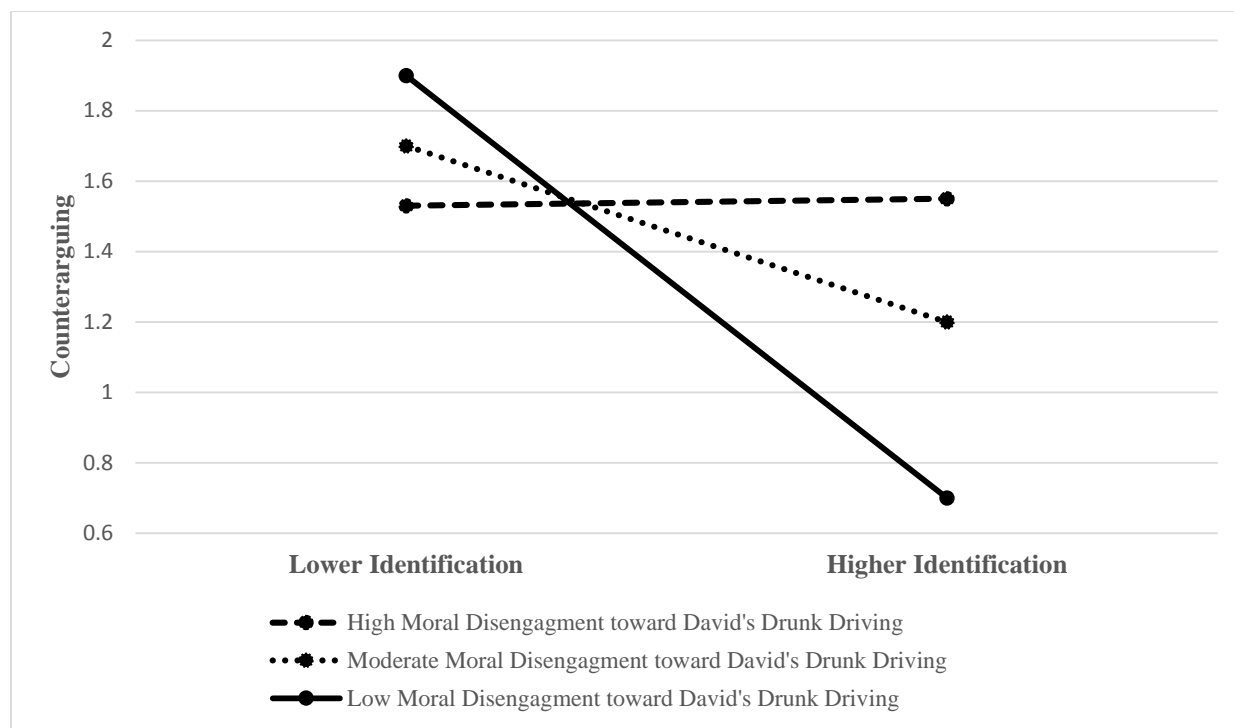


Figure 5. Counterarguing by Moral Disengagement toward a Character's Drunk Driving and Identification

The online tool shows the plot of the slopes of identification on counterarguing for those who had high, moderate and low moral disengagement toward David's drunk driving (one standard deviation above the mean, at the mean, and one standard deviation below the mean). The simple slopes for lower ($b = -.18, p < .01$) and moderate ($b = -.10, p < .05$) moral disengagement toward David's drinking and driving were significant. There was no significant relationship between identification and counterarguing when moral disengagement toward David's drinking and driving was high ($b = -.00, p > .05$). These results indicate that negative relationship between identification and counterarguing was stronger at lower levels of moral disengagement toward David's drinking and driving. In other words, the less participants justified David's drunk driving, the more identification reduced counterarguing toward the main anti-drunk driving message.

4.5 Personal Television Characteristics and Involvement

Regarding RQ2, the responses to an open-ended question asking the experience of viewing a television drama on an iPad were analyzed. The responses were categorized by the various aspects of personal television viewing, including the screen, viewing distance, sound, placement of the device, personalization, and convenience due to additional functions of the device. Responses about iPad screen were coded as “screen”, such as its size, video quality, glaring, or banner bar that appeared on the screen. Answers talking about the closeness between the screen and viewer were coded as “viewing distance.” “Sound” aspect includes responses that mentioned using headphones or sound quality, and “placing of the device” was coded for references to holding or placing the iPad or ease of changing the placement of the device. Responses that referred to aspects of personal or private viewing on the iPad were coded as “personalization.” Finally, “convenience due to additional functions” included responses that talked about unique functions of the iPad, such as portability, accessibility and easy adjustment. Some responses did not refer to a specific aspect of personal television, but rather mentioned the general feeling of the experience. Those responses were coded as “general.”

In addition, each response was coded as positive, negative, or neutral. Neutral was used if a response was neither positive nor negative. The detailed categories and codes are explained in the codebook (Appendix J). Table 8 displays examples of each category.

Table 8. Examples of Answers in Each Aspect of Personal TV

Aspects of Personal TV	Examples
Screen	<p>“I liked the size of screen.”</p> <p>“I could see the URL and other things at the top of the screen that were a little distracting.”</p> <p>“There was a bit of a glare, but it didn't bother me.”</p>
Viewing Distance	<p>“It was closer, so I felt more into it.”</p> <p>“I did not like that I held the screen close to my face, for it is bad for my eyes.”</p>
Sound	<p>“I liked the fact that I could use headphones so I was less distracted by outside noise.”</p> <p>“Great sound quality”</p> <p>“I did not like to wear headphones.”</p>
Placing of the Device	<p>“I liked being able to watch it on the iPad because I was able to stand the iPad and not have to hold it.”</p> <p>“I had to look down instead of forward, so my neck is just a little stiff.”</p> <p>“Didn't like holding the iPad in my hand sometimes”</p>
Personalization	<p>“I liked the personalized aspect of viewing the film on the iPad.”</p> <p>“Personal viewing. No interruptions”</p>
Convenience	<p>“Smooth transition, more hands on, mobile, no need for remote”</p> <p>“I could rewind the parts I wanted to review again or I missed something.”</p>
General	<p>“I love using the iPad to watch the episode.”</p> <p>“On the iPad I feel like I wasn't that engaged compared to watching it on the television screen.”</p>

A total of 501 responses were collected from 347 participants. Among them, ten answers were not relevant to the question (e.g., “none” or “typing and question size”) and they were not

included on the analyses; therefore, a total of 491 responses were from 337 participants were analyzed by two independent coders. In the coding of seven aspects of personal television, Cohen's Kappa ranged from .99 to 1, and in the coding of positive, negative, or neutral evaluation of each aspect, Cohen's Kappa ranged from .98 to 1. Disagreements were resolved by discussion between the coders. Table 9 displays the frequency of each aspect of the iPad viewing experience, the percent of total responses this frequency represents, and the percent of respondents who gave each response.

Table 9. Frequency of Different Aspects of the iPad Viewing Experience

Aspect Categories	Frequency	Percent of Total Responses (N = 491)	Percent of Participants who Answered (N = 337)
Screen	125	25%	37%
Viewing Distance	44	9%	13%
Sound	48	10%	14%
Placing Device	52	11%	15%
Personalization	48	10%	14%
Convenience	76	15%	23%
General	98	20%	29%

Responses about the screen of the iPad were given most frequently, by 37% of participants who answered (25% of total responses). The aspects of viewing distance, sound, placing of the device, and personalization accounted for a similar percent of total respondents (13 to 15%). A total of 23 percent of participants mentioned convenience due to additional functions of the iPad (15% of total responses), and 29% percent of participants referred to their experience of watching iPad TV in general (20% of total responses).

Table 10 shows the frequency of positive, negative, and neutral comments about each aspect of the iPad, and results of the Chi-square tests. Participants were more likely to make negative than positive comments about the screen of iPad. Seventy-five percent of total responses about the screen were negative, whereas only 14 % were positive. In contrast, responses on viewing distance and sound were more positive (84%, 67%) than negative (11%, 29%). As expected, responses on personalization and convenience of iPad TV were almost all positive.

Table 10. Positive Negative and Neutral in Various Aspects of iPad TV

Aspect Categories	Positive	Negative	Neutral	Total	Chi-square
Screen	17 (14%)	94 (75%)	14 (11%)	125	98.70***
Viewing Distance	37 (84%)	5 (11%)	2 (5%)	44	51.32***
Sound	32 (67%)	14 (29%)	2 (4%)	48	28.50***
Placing Device	26 (50%)	24 (46%)	2 (4%)	52	20.46***
Personalization	48 (100%)	-	-	48	-
Convenience	69 (91%)	3 (4%)	4 (5%)	76	112.92***
General	52 (53%)	12 (12%)	34 (33%)	98	24.57***

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

In order to investigate RQ3, asking how participants' responses to the experience of viewing the episode on the iPad related to their involvement while viewing, partial correlations were computed. Specifically, viewing comfort with the screen size, distance to the screen, using headphones, and holding the device were measured. Gender, race (Black vs. others), and age were used as control variables. The partial correlations are reported in Table 11.

Table 11. Partial Correlations between Involvement and Viewing Comfort

	2	3	4	5	6
1. Transportation	.67***	.15**	.11*	.13*	.03
2. Identification		.14**	.12*	.16**	.01
3. Comfort with Screen Size			.70***	.56***	.28***
4. Comfort with Distance to Screen				.62***	.40***
5. Comfort with Using Headphones					.21***
6. Comfort with Holding the Device					

* $p < .05$, ** $p < .01$, *** $p < .001$
Note. Gender, race (Black vs. other), and age were included as covariates.

The table shows that comfort with screen size, distance, and using headphones were positively related to involvement including both transportation and identification. However, viewing comfort in holding the device was not related to involvement.

5. DISCUSSION

The main purpose of the current research was to explore personal television viewers' involvement in a narrative about drunk driving and its persuasive effects. According to current theory on entertainment-education, narratives are persuasive because involvement reduces viewers' ability to resist against the message while they are watching the story (Dal Cin et al., 2004; Green & Brock, 2000; Slater & Rouner, 2002). This study makes contributions to both E-E studies and personal television research theoretically and practically by reexamining the EORM in personal television context, suggesting an extended model including moral disengagement, and investigating how perceptions of personal television associate with viewers' involvement in an E-E program.

Similar to previous research on EORM (Moyer-Gusé, 2008; Moyer-Gusé & Nabi, 2010), in the personal television context, identification emerged as a negative predictor of perceived invulnerability, and also led to message-consistent attitudes and behavioral intentions. However, neither transportation nor identification was associated with counterarguing. Furthermore, in the analyses of the extended model, moral disengagement was not a significant moderator of the relationship between identification and resistance. However, the results showed that, at a marginally significant level, moral disengagement toward the main character's drunk driving did moderate the association between identification and counterarguing. Specifically, the lower respondents' level of moral disengagement, the stronger the negative association between identification and counterarguing. In other words, identification appeared to help overcome one form of resistance, counterarguing (and the negative relationship between these variables was significant), except among viewers who highly justified the character's drunk driving. Finally, several interesting findings emerged in the analyses of personal television viewers' responses to

their experience of watching the episode via an iPad. Most viewers reported concerns about the screen of the iPad, whereas they were generally favorable about the viewing distance, convenience, and personal aspects of using the device. In addition, viewers' degree of comfort with the screen, the viewing distance, and using headphones were all positively associated with their transportation and identification.

The following sections discuss more details of each purpose of the study, as well as the theoretical and practical implications of the findings of the current study. Limitations of the study and suggestions for future research are included at the end of this chapter.

5.1 Persuasion Process in Personal Television Viewing

The first research purpose of this study was to reexamine the entertainment overcoming resistance model (EORM) in the personal television viewing environment. The model (Moyer-Gusé, 2008; Moyer-Gusé & Nabi, 2010) proposes that the narrative persuasion of E-E messages occurs when viewers are so absorbed into the story or a character of the story that they are not motivated to resist against the message. Particularly, the model provides the mechanism for how narrative absorption and character identification overcome different types of resistance against the main message, and lead to attitudes and behaviors that are consistent with the message. Given that personal devices are becoming popular for watching video content, this question has arisen: How does personal television viewers' involvement associate with resistance to persuasion, and ultimately how does involvement influence their story-consistent attitudes and behavioral intentions? The EORM includes several types of psychological reactions and resistance. The current research, however, focused on the role of transportation and identification in reducing counterarguing and perceived invulnerability.

The results of the present study indicate that identification with a main character who experienced negative consequences due to drunk driving reduced viewers' perceived invulnerability to those adverse consequences. This suggests that participants who developed identification with the main character, David, vicariously experienced the difficult situation caused by his drunk driving, and this vicarious experience increased viewers' perception that they also might be vulnerable to those problems in their real life. The study also found that perceived invulnerability was negatively associated with attitudes and behavioral intentions to avoid drunk driving. In other words, the more people perceived that what David experienced due to drunk driving could happen to them, the more they believed that drinking and driving is unacceptable and the more they intended to avoid driving drunk. These findings show that, as EORM predicted, identification with a character who experienced adverse consequences for an unhealthy behavior reduced viewers' perceived invulnerability, and led them to develop attitudes and behavioral intentions consistent with the E-E message.

In contrast to the findings for perceived invulnerability, neither transportation nor identification were associated with counterarguing, and counterarguing was not associated with attitudes and behaviors to avoid drinking and driving. These associations had been predicted based on EORM, but the predictions were not confirmed. According to the model, transportation leads viewers to pay greater attention to the story, and with their cognitive resources occupied with following the storyline, few resources remain to scrutinize and criticize the persuasive message. Therefore, viewers who are transported by narrative become less critical and have less motivation to argue against the persuasive message (Busselle & Bilandzic, 2009; Green & Brock, 2000; Knowles & Linn, 2004; Slater & Rouner, 2002). The EORM proposed a similar mechanism to explain the negative association between identification and counterarguing. When

viewers identify with a main character, they imagine themselves as the character and process the story from the character's perspective; because the viewer is absorbed in the character's experience, they are less likely to argue back against the persuasive message (Cohen, 2001; Green & Brock, 2000; Slater & Rouner, 2002). But no support for these expectations for the impact of involvement on counterarguing emerged in this study, with the exception of one finding related to the extended model (involving moral disengagement), to be discussed below.

Previous research has also often failed to show that involvement curtails counterarguing. For instance, Moyer-Gusé and Nabi (2010) analyzed the role of involvement in narrative persuasion, and found a *positive* association between transportation and counterarguing, in contrast to the expectation that transportation would reduce counterarguing. In addition, counterarguing had no effect on behavioral intentions in their research. The authors argued that these results might have been due to their measurement of counterarguing, which was ambiguous regarding whether viewers counterargued the main persuasive message, the characters' decisions, or other aspects of the program. But, in the current study, the measure of counterarguing was designed to overcome this problem, by first asking respondents to identify the main message of the program and then rate the counterarguing items in relation to that message. Most participants (86.7%) identified the main message consistent to the episode, and participants who failed to identify the proper main argument were excluded from the analyses that involved counterarguing. However, use of this measure did not result in any effects for counterarguing, as had been expected.

One factor which might explain the lack of findings related to counterarguing is that David was arguably a transitional character (Bandura, 2004) in the narrative, rather than simply a character who suffered as a result of his bad behavior. Specifically, he faced a crisis due to his

drunk driving, but then overcome the crisis and expressed regret for his actions. In addition, he learned that his worst fears had not materialized, when it was revealed that he had not hit someone with his car. Due to the transition of the main character and key events in the episode, it might be that some viewers counterargued before they saw David regretting his drunk driving whereas other viewers argued back after David expressed regret for his past behavior. In addition, despite asking viewers to identify the main message, it is not clear specifically with what events presented in the episode viewers disagreed. For instance, some viewers may have argued against the suffering David experienced from his drunk driving (perhaps viewing it as too extreme), whereas other viewers may have argued against the relief David felt when he realized he did not hit someone (perhaps feeling he had escaped or needed punishment). These two ways of counterarguing seem to be in contrast to each other, and they may result in different influences. However, the measure of counterarguing used in this study could not assess these differences in responses to the narrative that included a transitional character.

Many studies have examined the function of counterarguing in the narrative persuasion process, and have predicted that both transportation and identification would be negatively related to counterarguing (Deighton et al., 1989; Green & Brock, 2000; Slater, Rouner, & Long, 2006; Stitt & Nabi, 2005). However, few research studies have found the expected associations with counterarguing in path models that included both identification and transportation as exogenous variables. As noted above, in Moyer-Gusé and Nabi's (2010) study examining the EORM, they found a *positive* association (rather than a negative association) between transportation and counterarguing, but identification was negatively associated with counterarguing, as expected. In addition, the authors' hypothesized model did not provide an acceptable fit to the data until they removed the path between counterarguing and behavioral

intentions. In a later study, Moyer-Gusé et al. (2011) analyzed a path model including identification as the only exogenous variable, and found the expected negative associations between identification and counterarguing, and between counterarguing and behavioral intentions. In the current study, although neither transportation nor identification was associated with counterarguing in the path model, identification was a significant negative predictor of counterarguing in the linear regression analyses for the extended model. Based on this limited evidence, it might be concluded that these two types of involvement – transportation and identification – may not function in the same way to reduce counterarguing, as suggested by the EORM. In addition, as shown in Table 2, identification and transportation were highly correlated with each other, and some items on the two scales had some conceptual overlap. This may partially explain why when both transportation and identification were included in the path analyses, neither variable was significantly related to counterarguing, but when identification was examined separately in the regression analyses, a significant association with counterarguing emerged. Future research exploring various path models may be able to provide additional evidence to help clarify the role of involvement and counterarguing in narrative persuasion.

5.2 Moral Disengagement in the Persuasion Process

Entertainment-education messages often depict characters who do unhealthy behaviors. However, the existing models for narrative persuasion of E-E programs have not considered how viewers evaluate those characters engaged in unhealthy or risky behaviors, and cannot answer the following question: What happens if a viewer perceives a character's risky behavior as acceptable or justifies the behavior in the process of narrative persuasion?

While watching narrative programs, viewers observe and judge characters' behaviors, and form affective dispositions to the characters. Viewers also respond, based on these affective

dispositions, to characters' anticipated outcomes (Zillmann, 2000; Zillmann & Bryant, 1975; Zillmann & Cantor, 1977). Raney (2004) demonstrates that viewers' judgments and affective dispositions toward characters are based on the viewers' personal standards of morality, the extent to which they consider characters' behaviors as morally acceptable or not. Moral disengagement (Bandura, 2002) is a concept that explains the process of judging socially unacceptable behaviors as acceptable ones. In this study, some viewers may have justified drunk driving by the main character, David, whereas other viewers may have felt that his behavior was unacceptable. Therefore, it was reasoned that viewers' moral standards and level of moral disengagement toward David's drunk driving may play a key role in responses to the character and acceptance of the character's attitudes and behaviors within a narrative. Specifically, this study explored whether and how moral disengagement may moderate identification with David overcomes resistance to the message that discouraged drunk driving. In particular, this was examined by analyzing whether identification interacted with moral disengagement (moral disengagement trait and moral disengagement toward David's drunk driving) in predicting two types of resistance: counterarguing and perceived invulnerability.

No significant interaction effects were observed. However, a marginally significant interaction between identification and moral disengagement toward David's drunk driving emerged in the analysis predicting counterarguing. A supplemental analysis showed how moral disengagement toward the character's drunk driving moderated the process by which identification reduced counterarguing. Specifically, at lower levels of moral disengagement toward David's drunk driving, the negative relationship between identification and counterarguing was stronger. In other words, identification with David more strongly curtailed counterarguing toward the main persuasive message when the level of the moral disengagement

toward David's drunk driving was low, whereas identification was unrelated to counterarguing when moral disengagement toward his drunk driving was high. These results require careful interpretation, however, because David is arguably a transitional character. During the episode, David engaged in drunk driving, but he also regretted his drunk driving and decided not to cover up evidence of his drunk driving although he had a chance to do so. Moral disengagement towards David's drunk driving may have had different effects for viewers who identified with him at different points in the narrative, such as before versus after he regretted driving drunk, but the results cannot distinguish between these possibilities.

Although the moderation effect was marginally significant, the fact that identification and counterarguing were significantly negatively associated at low and moderate levels of moral disengagement provides some indirect evidence that justification of a character's unhealthy behavior may play a role in resistance to persuasion. If reactions to the narrative in this study had been examined only based on the EORM, which does not include moral disengagement, we could know only that identification with David helped overcome perceived invulnerability. However, the extended model additionally provides some evidence that identification with David may reduce counterarguing, but only among those with lower moral disengagement from David's drunk driving (i.e., those who tend not to justify his behavior).

The failure to observe any moderating effect for the moral disengagement trait in the extended model may be partly due to the very low scores on this measure (i.e., a floor effect). The average score on the moral disengagement trait measure was only .90 on a scale with a possible range from 0 to 6. Furthermore, the measure of trait moral disengagement includes a variety of behaviors that may not relate closely to judgments about drinking and driving.

5.3 Perceptions and Involvement in Personal Television Viewing

As the final goal, this study explored personal television viewers' responses toward watching television via iPad and how the responses were related to their narrative involvement (transportation) and character involvement (identification).

In an open-ended question, participants freely expressed their thoughts and feelings about various aspects of the personal television viewing experience, including but not limited to the screen, viewing distance, sound, placing of the device, personalization, and convenience due to additional functions of the device. The screen was the most frequently mentioned aspect of the viewing experience (37% of respondents), and 75% of the responses about the screen were negative. Viewers complained about the small size of the screen, the glaring surface of screen, and the fact that they could not see the episode with the full screen due to the URL bar. However, some viewers were satisfied with the iPad screen in watching the episode (14% of total responses about screen). The convenience of the device was also frequently mentioned (23% of respondents), and most responses about convenience (91%) were positive. Viewers liked several unique functions of the iPad to increase their convenience in watching television programs, such as easy to carry, easy to pause or rewind, and easy to control volume. Another aspect many viewers liked about the iPad was personal (individual) viewing without interruptions by others; no one complained about the personal viewing aspect of iPad TV in this study. The close viewing distance was also perceived as a positive aspect (84% of total responses about viewing distance). People mentioned that they liked the close viewing because they were able to see more details, pay more attention, and be more involved into the show. Finally, regarding the sound aspects, viewers gave both positive and negative responses: Blocking outside noise was a good point but wearing something on their head was unpleasant experience to many viewers.

In addition to investigating viewers' responses about the experience of television viewing on the iPad, this research analyzed how viewers' comfort with the personal television viewing experience would be related to their involvement in the narrative. Are people who were satisfied with the screen size more transported into the episode, or did people who were uncomfortable using headphones identify less with the character in the episode? Among several characteristics of personal television viewing, the current study focused on screen size, viewing distance, using headphones, and holding the device, and examined whether viewers' feeling of comfort with those characteristics was associated with transportation and identification. The results indicated that viewers who felt more comfortable with the screen size, distance to screen, and using headphones experienced more transportation and identification.

In previous television studies, researchers have mainly explored how the screen size, viewing distance, and using headphones influence viewers' psychological responses. Screen size was associated positively with viewers' immersion and involvement (Lombard et al., 2000; Lombard & Ditton, 1997) and viewing distance was an important factor in viewers' emotion and attitudes towards a program (Bellman et al., 2009; De Cesarei & Codispoti, 2008; Lin et al., 2007). Using headphones was found to increase viewers' attention and immersion in some studies (Bracken & Pettey, 2007; Kallinen & Ravaja, 2007; Witmer & Singer, 1998), whereas other researchers found it could cause users' tiredness and reduce involvement (Nordin et al., 2014; Vorbau et al., 2007). However, when viewers watch a program via a non-familiar type of media device, the feeling of comfort, not the features of the media device itself, may be an important factor impacting their immersion in the program. The findings from this study show that in the personal television viewing environment, viewers' positive feelings about the screen, viewing distance, and using headphones were important in developing their involvement with the

narrative and characters in the story. Conversely, a lack of comfort with those aspects of the viewing experience disrupted involvement with the narrative and characters.

On the other hand, however, comfort with the holding the device was not related with viewers' involvement. One reason for this result may be the unique viewing circumstances in this study. Each iPad was covered with a case that could be used for standing the device instead of holding it. Thus participants could stand the iPad on the table if they were tired of holding the device.

5.4 Theoretical and Practical Implications

The results of this research have both theoretical and practical implications. First, this study plays a role in promoting user-centric research on personal television viewing. Research on mobile or personal television has mainly focused on who would adopt this new type of media and how fast the adoption would happen. However, the research focus in this study moved to personal television users and their actual usage of personal television, in particular exploring their involvement and the persuasive effects of a narrative. With an increasing number of people enjoying television content via personal media, it has become more important to study how viewers use personal media devices and what influence the use of these devices has on the outcomes of media use. This study can be considered an initial example of that type of research.

In this study, the entertainment overcoming resistance model (EORM) was partially confirmed in the personal television viewing context. The finding that involvement with a main character lead to more message-consistent attitudes and behaviors by reducing one type of resistance, perceived invulnerability, supports the mechanisms proposed by the EORM (Moyer-Gusé, 2008; Moyer-Gusé & Nabi, 2010). This suggests that the persuasion process in personal

television viewing may be similar, at least in some ways, to that process in traditional television viewing.

Media practitioners developing E-E messages need to pay close attention to the role of identification. In particular, when showing protagonists engaged in risky or unhealthy behaviors, they should be careful to consider how viewers' identification with those characters may influence responses. The bad/risky behaviors may cause viewers' unfavorable dispositions toward the characters and thus less identification with the characters (Cohen, 2006; Zillmann, 2000; Zillmann & Bryant, 1975; Zillmann & Cantor, 1977). This reduced identification could be especially counterproductive if practitioners utilize transitional characters as models, with the intent that viewers will transition with the characters as they adopt more positive behaviors. A transitional character in an entertainment story starts out doing negative behaviors, but then changes to become a character doing good behaviors after overcoming a crisis (Bandura, 2004). When portraying transitional characters, practitioners need to ensure that viewers' identification is not reduced by the characters' initial bad behaviors. If viewers identify with such a character while watching the character get through a crisis and adopt socially acceptable behaviors, this can help viewers decide to change in a similar way. Therefore, transitional characters can serve a persuasive role in E-E programs (Lovell et al., 2008; Sabido, 2011). In addition, how the consequences of the character's risky or unhealthy behaviors are depicted in the story is important in the impact on viewer's attitudes and behaviors. According to social cognitive theory (Bandura, 2004), people learn by observing media characters' behaviors and the consequences of those behaviors. Therefore, when depicting risky behaviors, including the negative consequences due to those behaviors is needed to increase the E-E effects.

This research raised the important question about the role of moral disengagement in narrative persuasion of E-E programs. Results regarding the moderating effect of moral disengagement were very limited, showing only that moral disengagement regarding a character's risky behavior may have disrupted the ability of identification to reduce resistance via counterarguing. But these limited results were obtained in the first study to examine the role of moral disengagement in narrative persuasion, and suggest that this variable should be examined further in other narratives and for other types of risky or unhealthy behaviors. Based on these initial findings, some tentative theoretical and practical implications can be proposed.

Nowadays, popular television narratives designed primarily for entertainment are examined in many E-E studies because those programs often deliver persuasive health messages embedded in the narrative, which may influence viewers' attitudes and behaviors relevant to the message. These narratives often include crime scenes and characters who are engaged in unhealthy or risky behaviors. Given the importance of moral evaluations of characters in responses to narratives (Raney, 2004), it stands to reason that viewers' moral evaluations toward those risky or unhealthy behaviors should be an important factor influencing the narrative persuasion process. The extended model proposed in the current research can complement the EORM developed by Moyer-Gusé (2008), particularly when the narrative story includes characters who engage in unhealthy or risky behaviors. Those unhealthy/risky behaviors are evaluated differently depending upon viewers' moral evaluations, and viewers' moral evaluations vary based on their standards of morality (Raney, 2004). Moral disengagement (Bandura, 2002) means the process of evaluating socially or morally unacceptable behaviors as acceptable ones. According to EORM, identification with a character should play a role in overcoming resistance to narrative persuasion. However, when viewers judge a character's

risky/bad behaviors as acceptable ones, identification toward the character may not curtail resistance because viewers who justify the behaviors will tend to disagree with the message intended to discourage the behaviors. Therefore, moral disengagement may have an impact on the association between identification and counterarguing in the process of narrative persuasion.

The extended model also has implications for media practitioners developing persuasive narrative messages. When they create characters engaged in bad/risky behaviors, they need to be careful not to increase viewers' moral disengagement toward the depicted behaviors. Some narrative cues, such as reasons for the risky or unhealthy behavior, or success in social position can increase viewers' moral disengagement toward the behaviors (Krakowiak & Tsay-Vogel, 2013; Raney, 2004). An empirical study (Tully & Ekdale, 2012) showed that viewers judged a character's illegal behaviors in the past as not important problems (reflecting moral disengagement) based on narrative cues, such as the character's faithful attitude toward current work.

Finally, based on the findings of the role of identification in the persuasion process, identification appears to be very meaningful in the personal television environment. The screen of an iPad is smaller than the screen of a typical television, but the close viewing distance may have overcome this limitation and instigated involvement with the media character. Also, as shown from the above analyses, in the personal media context, viewers' involvement was positively correlated to their comfort feeling toward the features of new media. Thus, despite concerns about the limitations of viewing media on small mobile devices (Lin et al., 2007; Lombard et al., 2000), it may be that comfort with the personal media device may be at least as important as the features of the device. Together, these findings suggest that, as viewers become more comfortable with viewing narratives on personal media devices, narrative programs

distributed in these formats (e.g., designed for access via mobile devices) will be able involve viewers and contribute to persuasion, especially via identification with characters.

5.5 Limitations and Future Research

This study has several limitations. First, several factors related to the sample may be limited to generalize the findings. A convenience sample of college students was used in this research. They were mainly younger and more educated than the general population. The sample also had more females than males, and more African-Americans than any other race/ethnicity. Gender, age, and race were related to some important variables. Future research needs to examine the role of these demographic variables in responses to narrative persuasion. In addition, college students are familiar with personal media devices. As shown in the description of participants, many of them are used to watching video content through mobile devices, such as laptops and mobile phones. Therefore, their responses toward personal television viewing may be different from others who do not have much experience with such personal media devices. The episode used in this study was originally broadcast in 2003. The participants in this study were likely neither regular viewers nor the target audience of the program, and they were not familiar with the regular characters on the program. Thus, their responses to the narrative may be somewhat different from the regular viewers of the series.

Another limitation of this study is that the study was conducted in a classroom setting. One of the important characteristics of personal television is mobility, but the lab setting for this study cannot reflect the mobility of personal television. Participants were not allowed to move around or interact with others while they were watching the episode, in order to minimize the influence of extraneous factors. This type of research setting means that the findings from this

study may not reflect responses in more natural viewing situations of personal television. Additional research should allow participants to watch programs via personal media devices in various locations of their own choosing.

Furthermore, this research is limited by the episode's lack of persuasive power. Unexpected results emerged when comparing pre-exposure attitudes toward avoiding drinking and driving to post-exposure attitudes. Participants initially had highly positive attitudes toward avoiding drunk driving, and these attitudes were reduced after watching the episode. One possible explanation of the unexpected results is that because the episode described an extreme drunk driving case, in which an individual drove while extremely drunk and blacked out afterwards, viewers might have considered driving after having only one drink with a meal (first measured item) or while under the legal limit for blood-alcohol content (second measure item) as relatively more acceptable. Nonetheless, after viewing the episode, viewers still were less inclined to engage in drunk driving themselves.

Because both drinking and driving and moral disengagement (especially related to the character's drunk driving) are sensitive issues, participants' answers may have been influenced by social desirability. As shown in the descriptive analyses (see Table 1), the scores on both measures of moral disengagement were low, especially the measure of moral disengagement related to the character's drunk driving was very low, whereas the scores for attitudes and behaviors to avoid drunk driving were relatively high. Even in the pre-exposure questionnaires, participants' answers already reflected very high awareness of the danger of drinking and driving. Future research with more socially acceptable health issues, such as plastic surgery or cancer screening, may reduce the social desirability bias and show further findings on the role of moral disengagement in EORM.

This study can be the basis for several types of future research. This is the first study to examine the persuasive narrative process in the personal television viewing environment. Although the current study was based on the EORM, the only measures of viewers' involvement included were transportation and identification, and the only types of resistance were counterarguing and perceived invulnerability. Additional research is needed to consider other types of psychological responses, including perceived persuasive intent as well as liking, perceived similarity, or parasocial interaction with a character. In addition, other types of resistance to persuasion should be examined in the personal television environment. In the EORM, reactance and selective avoidance were included, in addition to counterarguing and perceived invulnerability. Liking a character or parasocial interaction can reduce reactance, and identification may overcome selective avoidance (Moyer-Gusé, 2008; Moyer-Gusé & Nabi, 2010). Future research including these processes will help to develop a more complete model of narrative persuasion in the personal television environment.

This research re-examined the EORM, which has been studied mainly in the traditional television context, in order to explore how the model works in the personal television environment. This study, however, was conducted only in the personal television situation and thus did not explicitly compare the narrative persuasion process in the two viewing contexts. In future research, an experiment should compare two groups -- one for personal television viewing and the other for traditional television viewing -- to determine the differences and similarities of the persuasive process of an E-E program in different viewing contexts.

The moderating effect of moral disengagement on the persuasive process needs to be explored further in future studies. Moral disengagement emerged as a moderator in only analysis and that effect was only marginally significant, and thus the results should be interpreted with

cautions. Additional research is needed to examine the moderating role of moral disengagement with issues other than drunk driving. Viewers' moral standards and evaluations of characters' behaviors should be important variables in narrative persuasion, especially in narratives which depict negative consequences of the risky behaviors. Furthermore, future research may suggest other moderators of narrative processing that might play a role in the narrative persuasion process. For example, research on how people process narratives has explored the influence of entertainment use motivations (Slater, 1997) and the effects of providing a supplemental conclusion to the narrative, to reinforce the persuasive message (Cohen, in press).

This research found that viewers' degree of comfort with the screen size, viewing distance, and using headphones was positively associated to their transportation and identification. The role of other aspects of personal television should be explored in the future research, such as, portability or individual viewing. More importantly, more nuanced measures are needed to assess exactly what contributes to people's feelings of comfort with personal media devices. The measures used in the current study did not show, for instance, whether a viewer felt less comfort with the screen size because they could not see sufficient detail or they could not become immersed in the story. More specific measures in future studies could provide more insight into the associations between viewers' satisfaction using personal television devices and their narrative involvement.

5.6 Conclusion

The present study provided evidence that, in the personal television viewing environment, viewers' identification with a main character can overcome resistance toward persuasion by an E-E narrative, and increase story-consistent attitudes and behaviors, as

suggested by the EORM. However, the results did not confirm that transportation also can overcome resistance to persuasion. Additional research is needed to determine whether this outcome is due to features of the personal television viewing context or the nature of the health issue (drunk driving), or whether transportation generally does not disrupt counterarguing in the way proposed by the EORM (cf. Moyer- Gusé & Nabi, 2010). It also would be useful to examine if transportation may help to reduce other types of resistance beyond counterarguing.

The extended model suggesting moral disengagement as a moderator in the persuasive process was not confirmed in the current study, but moral disengagement toward the character's drunk driving did marginally moderate the process by which identification reduced resistance, in particular, counterarguing. Specifically, the expected negative relationship between identification and counterarguing emerged only among viewers who had lower levels of moral disengagement toward the character's drunk driving; identification was unrelated to counterarguing among viewers with high moral disengagement. Future research needs to further explore the potential moderating role of moral disengagement in the EORM, using persuasive narratives that involve other types of risky or unhealthy behaviors.

This study found that viewers' involvement in the narrative (transportation and identification) was associated with greater perceived comfort with several aspects of personal television, including screen size, sound quality, and viewing distance. Although this study did not directly compare narrative persuasion in the traditional television and personal television contexts, the findings suggest that there may be differences based on how and to what extent viewers become involved in E-E narratives. The possibility that narrative persuasion may be affected by the unique characteristics of personal media devices was shown in the research. Furthermore, this study provides a basis for future research on how the Entertainment

Overcoming Resistance Model of narrative persuasion can be applied and extended in the personal television viewing context.

REFERENCES

- Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). The alcohol use disorders identification test: Guidelines for use in primary care. Geneva. *World Health Organization, Department of Mental Health and Substance Dependence*. Retrieved March 11, 2014 from http://www.talkingalcohol.com/files/pdfs/WHO_audit.pdf
- Bandura, A. (2002). Selective moral disengagement in the exercise of moral agency. *Journal of Moral Education, 31*(2), 101-119.
- Bandura, A. (2004). Social cognitive theory for personal and social change by enabling media. In A. Singhal, M., Cody, E. Rogers, & M. Sabigo (Eds.), *Entertainment-education and social change* (pp. 75-96). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology, 71*(2), 364-374.
- Basil, M. (1994). Secondary reaction-time measures. In A. Lang (Ed.), *Measuring psychological responses to media* (pp. 85-98). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bellman, S., Schwaeda, A., & Varan, D. (2009). Viewing angle matters: Screen type does not. *Journal of Communication, 59*, 609-634.
- Bettelheim, B. (1943). Individual and mass behavior in extreme situations. *Journal of Abnormal and Social Psychology, 38*, 417-452.
- Bracken, C., & Pettey, G. (2007). It is REALLY a smaller (and smaller) world: Presence and small screens. In L. Moreno (Ed), *Proceeding of the 10th Annual International Workshop on Presence* (pp.283-290). Barcelona, Spain: Starlab Barcelona S.L.

- Brock, T. (1967). Communication discrepancy and intent to persuade as determinants of counterargument production. *Journal of Experimental Social Psychology, 3*, 269-309.
- Brodie, M., Foehr, U., Rideout, V., Baer, N., Miller, C., Flournoy, R., & Altman, D. (2001). Communicating health information through the entertainment media. *Health Affairs, 20*, 192-199.
- Buchinger, S., Kriglstein, S., & Hlavace, H. (2009, June). *A comprehensive view on user studies: Survey and open issues for mobile TV*. Presented at Euro ITV'09, Leuven, Belgium.
- Busselle, R. & Bilandzic, H. (2009). Measuring narrative engagement. *Media Psychology, 12*, 321-347.
- Cohen, E. L. (in press). Exploring subtext processing in narrative persuasion: The role of eudaimonic entertainment use motivation and a supplemental conclusion scene. *Communication Quarterly*.
- Cohen, J. (2001). Defining identification: A theoretical look at the identification of audiences with media characters. *Mass Communication & Society, 4*, 245-264.
- Cohen, J. (2006). Audience identification with media characters. In J. Bryant & P. Vorderer (Eds.) *Psychology of entertainment* (pp. 183-198). Mahwah, NJ: Lawrence Erlbaum Associates.
- Collins, R., Elliot, M., Berry S., Kanouse, E., & Hunter, S. (2003). Entertainment television as a healthy sex educator: The impact of condom efficacy information in an episode of *Friends*. *Pediatrics, 112*, 1115-1121.
- Csikszentmihalyi, M., & Csikszentmihalyi, I. S. (1988). *Optimal experience: Psychological studies of flow in consciousness*. New York, NY: Cambridge University Press.

- Cui, Y., Chipchase, J., & Jung, Y. (2007). Personal TV: A qualitative study of mobile TV users. In P. Ceasar, K. Chorianopoulous, & J. F. Jensen (Eds.), *Interactive TV: A shared experience* (pp. 195-204). Berlin, Heidelberg, Germany: Springer.
- Dal Cin, S., Zanna, M., & Fong, G. (2004). Narrative persuasion and overcoming resistance. In E. Knowles & J. Linn (Eds.), *Resistance and persuasion* (pp. 175-191). Mahwah, NJ: Lawrence Erlbaum Associates.
- De Cesarei, A., & Codispoti, M. (2008). Fuzzy picture processing: Effect of size reduction and blurring on emotional processing. *Emotion*, 8, 352-363.
- Deighton, J., Romer, D., & McQueen, J. (1989). Using drama to persuade. *Journal of Consumer Research*, 16, 335-343.
- Freud, S. (1940). *An outline of psychoanalysis*. (J. Strachey, Trans.). New York, NY: Norton.
- Furman, P. (2012, June 19). Tablets' popularity is through the roof, nearly one-third of U.S. Internet users have one: Survey. *Daily News*. Retrieved April 24, 2015, from <http://www.nydailynews.com/news/money/tablets-popularity-roof-one-third-u-s-internet-users-survey-article-1.1097990>
- Goossens, L., Beyers, W., Emmen, M., & van Aken, M. A. G. (2002). The imaginary audience and personal fable: Factor analyses and concurrent validity of the "New Look" measures. *Journal of Research on Adolescence*, 12, 193-215.
- Green, M. C. (2004). Transportation into narrative worlds: The role of prior knowledge and perceived realism. *Discourse Processes*, 38, 247-266.
- Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*, 79, 701-721.

- Green, M., Garst, J., & Brock, T. C. (2004). The power of fiction: Determinants and boundaries. In L.J. Shrum (Ed.), *The psychology of entertainment media* (pp. 161-176). Mahwah, NJ: Lawrence Erlbaum Associates.
- Greenberg, B. S., Salmon, C. T., Patel, D., Beck, V., & Cole, G. (2004). Evolution of an E-E research agenda. In A. Singhal, M. J. Cody, E.M. Rogers, & M. Sabido (Eds.), *Entertainment-education and social change: History, research and practice* (pp. 192-206). Mahwah, NJ: Lawrence Erlbaum Associates.
- Greening, L., & Stoppelbein, L. (2000). Young drivers' health attitudes and intentions to drink and drive. *Journal of Adolescent Health, 27*(2), 94-101.
- Halsey, A. (2013, December 30). Drunken driving statistics. *The Washington Post*. Retrieved from http://www.washingtonpost.com/local/trafficandcommuting/drunken-driving-statistics/2013/12/30/1259bcb2-6ca1-11e3-aecc-85cb037b7236_story.html
- Harboe, G. (2010). Introduction to social TV. In A. Marcus, A. C. Roibas & R. Sala (Eds.), *Mobile TV: Customizing content and experience* (pp. 21-24). London, UK: Springer.
- Heikkinen, J., Olsson, T., & Vaananen-Vainio-Mattila, K. (2009, September). *Expectations for user experience in haptic communication with mobile devices*. Presented in the International Conference on Human-Computer Interaction with Mobile Devices and Services, Bonn, Germany.
- Holbert, R. L., & Stephenson, M. T. (2008). Commentary on the uses and misuses of structural equation modeling in communication research. In A. F. Hayes, M. D. Slater & L. B. Snyder (Eds.), *The Sage handbook of advanced data analysis methods for communication research* (pp. 185-218). Thousand Oaks, CA: Sage.

- Horton, D., & Wohl, R. R. (1956). Mass communication and para-social interaction: Observations on intimacy at a distance. *Psychiatry, 19*, 215–229.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1-55.
- Hou, J., Nam, Y., Peng, W., & Lee, K. M. (2012). Effects of screen size, viewing angle, and players' immersion tendencies on game experience. *Computers in Human Behavior, 28*, 617-623.
- Jewell, J., Hupp, S., & Luttrell, G. (2004). The effectiveness of fatal vision goggles: Disentangling experiential versus onlooker effects. *Journal of Alcohol and Drug Education, 48*, 63-84.
- Jewell, J., Hupp, S., & Segrist, D. (2008). Assessing DUI risk: Examination of the Behaviors & Attitudes Drinking & Driving Scale (BADDs). *Addictive Behaviors, 33*, 853-865.
- Jöreskog, K. G., & Sörbom, D. (1989). *LISREL 7: A guide to the program and applications*. Chicago, MA: SPSS.
- Jung, Y., Perez-Mira, B., & Wiley-Patton, S. (2009). Consumer adoption of mobile TV: Examining psychological flow and media content. *Computers in Human Behavior, 25*, 123-129.
- Kallinen, K., & Ravaja, N. (2007). Comparing speakers versus headphones in listening to news from a computer: Individual differences and psychophysiological responses. *Computers in Human Behavior, 23*, 303-317.

- Kennedy, M. G., O'Leary, A., Beck, V., Pollard, W. E., & Simpson, P. (2004). Increases in calls to the CDC national STD and AIDS hotline following AIDS-related episodes in soap opera. *Journal of Communication, 54*, 287-301.
- Kim, K. J., Sundar, S. S., & Park, E. (2011, May). *The effects of screen-size and communication modality on psychology of mobile device users*. Presented at the Association for Computing Machinery, CHI Conference, Vancouver, Canada.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*. New York: Guilford Press.
- Knowles, E., & Linn, J. (2004). The importance of resistance to persuasion. In E. Knowles & J. Linn (Eds.), *Resistance and persuasion* (pp. 3-11). Mahwah, NJ: Lawrence Erlbaum Associates.
- Krakowiak, K. M., & Oliver, M. B. (2012). When good characters do bad things: examining the effect of moral ambiguity on enjoyment. *Journal of Communication, 62*, 117-135.
- Krakowiak, K. M., & Tsay, M. (2011). The role of moral disengagement in the enjoyment of real and fictional characters. *International Journal of Arts and Technology, 4*, 90-101.
- Krakowiak, K. M., & Tsay-Vogel, M. (2013). What makes characters' bad behaviors acceptable? The effects of character motivation and outcome on perceptions, character liking and moral disengagement. *Mass Communication & Society, 16*, 179-199.
- Levy, M. R., & Windahl, S. (1985). The concept of audience activity. In K. E. Rosengren, L. A. Wenner, & P. Palmgreen (Eds.), *Media gratifications research: Current perspectives* (pp. 109-122). Beverly Hills, CA: Sage.
- Lin, T., Imamiya, A., Hu, W., & Omata, M. (2007). Display characteristics affect users' emotional arousal in 3D games. In C. Stephanidis & M. Pieper (Eds.), *Universal access*

in ambient intelligence ambient intelligence environments: 9th ERCIM workshop on user interfaces for all, lecture notes in computer science (Vol. 4397, pp. 337–351).

Berlin/Heidelberg, Germany: Springer-Verlag.

Lombard, M., & Ditton, T.B. (1997). At the heart of it all: The concept of presence. *Journal of Computer-Mediated-Communication*, 3 (2). Retrieved March 25, 2009 from <http://jcmc.indiana.edu/vol3/issue2/lombard.html>

Lombard, M., Reich, R.D., Grabe, M.E., Bracken, C., & Ditton, T.B. (2000). Presence and Television: The role of screen size. *Human Communication Research*, 26, 75-98.

Lovell, C., Pappas-Deluca, K., Kuhlmann, A., Koppenhaver, T., Kong, S., Mooki, M., & Galavotti, C. (2008). “One day I might find myself HIV-positive like her”: Audience involvement and identification with role models in an entertainment-education radio drama in Botswana. *International Quarterly of Community Health Education*, 28, 181-200.

Marcil, I., Bergeron, J., & Audet, T. (2001). Motivational factors underlying the intention to drink and drive in young male drivers. *Journal of Safety Research*, 32, 363-376.

Montgomery, K. C. (1993). The Harvard alcohol project: Promoting the designated driver on television. In T. E. Beacker, & E. M. Rogers, (Eds.), *Original aspects of health communication campaigns: What works* (pp. 178-202). Newbury Park, CA: Sage.

Moore C., Detert, J. R., Klebe Treviño, L., Baker, V. L., & Mayer, D. M. (2012). Why employees do bad things: Moral disengagement and unethical organizational behavior. *Personnel Psychology*, 65(1), 1-48.

Moyer-Gusé, E. (2008). Toward a theory of entertainment persuasion: Explaining the persuasive effects of entertainment-education messages. *Communication Theory*, 18, 407-425.

- Moyer-Gusé, E., Chung, A., & Jain, P. (2011). Identification with characters and discussion of taboo topics after exposure to an entertainment narrative about sexual health. *Journal of Communication, 61*, 387-406.
- Moyer-Gusé, E., Jain, P., & Chung, A. (2012). Reinforcement or reactance? Examining the effect of an explicit persuasive appeal following an entertainment-education narrative. *Journal of Communication, 62*, 1010-1027.
- Moyer-Gusé, E., & Nabi, R. (2010). Explaining the effects of narrative in an entertainment television program: Overcoming resistance to persuasion. *Human Communication Research, 36*, 26-52.
- Moyer-Gusé, E., & Nabi, R. (2011). Comparing the effects entertainment and educational television programming on risky sexual behavior. *Health Communication, 26*, 416-426.
- Murphy, S. T., Frank, L. B., Moran, M. B., & Patnoe-Woodley, P. (2011). Involved, transported or emotional? Exploring the determinant of change in knowledge, attitudes, and behavior in entertainment-education. *Journal of Communication, 61*, 407-431.
- Nabi, R., Moyer-Gusé, E., & Byrne, S. (2007). All joking aside: A serious investigation into the persuasive effect of funny social issue messages. *Communication Monographs, 74*, 29-54.
- Nielsen (2015a, April). *Screen wars: The battle for eye space in a TV-everywhere world*. Retrieved April 24, 2015 from <http://www.nielsen.com/us/en/insights/reports/2015/screen-wars-the-battle-for-eye-space-in-a-tv-everywhere-world.html>
- Nielsen (2015b, April). *Age of technology: Generational video viewing preferences vary by device and activity*. Retrieved April 24, 2015 from

<http://www.nielsen.com/us/en/insights/news/2015/age-of-technology-generational-video-viewing-preferences-vary-by-device-and-activity.html>

- Nordin, A. I., Cairns, P., Hudson, M., Alonso, A., & Calvillo, E. H. (2014). *The effect of surroundings on gaming experience*. Retrieved May 5, 2014 from http://fdg2014.org/papers/fdg2014_wip_14.pdf
- Petty, R., Briñol, P., & Priester, J. R. (2009). Mass media attitude change: Implication of the elaboration likelihood model of persuasion. In J. Bryant, & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (3rd ed., pp. 125-164). New York, NY: Routledge.
- Petty, R., & Cacioppo, J. (1986). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 123-205). New York, NY: Academic Press.
- Preacher, K.J., Curran P.J., & Bauer, D.J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31, 437-448.
- Raney, A. A. (2004) Expanding disposition theory: Reconsidering character liking, moral evaluations, and enjoyment. *Communication Theory*, 14, 348-369.
- Reeves, B., Lang, A., Kim, E.Y., & Tatar, D. (1999). The effect of screen size and message content on attention and arousal. *Media Psychology*, 1, 49-67.
- Sabido, M. (2011). Evolution of the Sabido methodology of “entertainment-education.” In Population Media Center (Ed.), *Using the media to achieve reproductive health and gender equity* (pp. 12-19). Shelburne, VT: Population Media Center.

- Saunders, J. B., Aasland, O. G., Babor, T. F., De La Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption-II. *Addiction, 88*, 791-804.
- Schuurman, D., Marez, L. D., & Evens, T. (2010). Content for mobile television: Issues regarding a new mass medium within today's ICT environment. In A. Marcus, A. C. Roibas & R. Sala (Eds.), *Mobile TV: Customizing content and experience* (pp. 143-163). London, UK: Springer.
- Shafer, D. M., & Raney, A. A. (2012). Exploring how we enjoy antihero narratives. *Journal of Communication, 62*, 1028-1046.
- Singhal, A., & Rogers, E. M. (1999). *Entertainment-education: A communication strategy for social change*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Singhal, A., & Rogers, E. M. (2002). A theoretical agenda for entertainment-education. *Communication Theory, 12*, 117-135.
- Slater, M.D. (1997). Persuasion processes across receiver goals and message genres. *Communication Theory, 7*, 125-148.
- Slater, M., & Rouner, D. (2002). Entertainment-education and elaboration likelihood: Understanding the processing of narrative persuasion. *Communication Theory 12*, 173-191.
- Slater, M., Rouner, D., & Long, M. (2006). Television dramas and support for controversial public policies: Effects and mechanisms. *Journal of Communication, 56*, 235-252.
- Sood, S. (2002). Audience involvement and entertainment-education. *Communication Theory, 12*, 153-172.

- Stitt, C. R., & Nabi, R. L. (2005, May). *The persuasive impact of narratives: A comparison across message types and modalities*. Presented at the annual meeting of International Communication Association, New York, NY.
- Tsay, M., & Krakowiak, K. M. (2011). The impact of perceived character similarity and identification on moral disengagement. *International Journal of Arts and Technology*, 4, 102-110.
- U.S. Department of Health and Human Services (2013). *Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings*. Retrieved March 25, 2012 from <http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf>
- Vorbau, W. A., Mitchell, A. S., & O'Hara, K. (2007, February). *"My iPod is my pacifier": An investigation on the everyday practices of mobile video consumption*. Presented in IEEE Workshop on Mobile Computing Systems and Applications, Tucson, Arizona.
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues and applications* (pp. 56-75). Newbury Park, CA: Sage
- Wilson, T. (1993). *Watching television*. Cambridge, England: Polity.
- Winsten, J. A. (1994). Promoting designated drivers: The Harvard alcohol project. *American Journal of Preventive Medicine*, 10, 11-14.
- Wirth, W. (2006). Involvement. In J. Bryant & P. Vorderer (Eds.), *Psychology of entertainment* (pp. 199-214). Mahwah, NJ: Lawrence Erlbaum Associates.

- Witmer, B., & Singer, M. (1998). Measuring presence in virtual environments: A presence questionnaire. *Presence, 7*, 225-240.
- Wollheim, R. (1974). Identification and imagination. In R. Wollheim (Ed), *Freud: A collection of critical essays* (pp. 172-195). New York, NY: Anchor/Doubleday.
- Zickuhr, K. (2013). *Tablet ownership 2013*. Retrieved April 24, 2015 from <http://www.pewinternet.org/2013/06/10/tablet-ownership-2013/>
- Zillmann, D. (2000). Basal morality in drama appreciation. In I. Bondebjerg (Ed.), *Moving images, culture, and the mind* (pp. 53–63). Luton, UK: University of Luton Press.
- Zillmann, D., & Bryant, J. (1975). Viewer's moral sanction of retribution in the appreciation of dramatic presentations. *Journal of Experimental Social Psychology, 11*, 572-582.
- Zillmann, D., & Cantor, J. R. (1977). Affective responses to the emotions of a protagonist. *Journal of Experimental Social Psychology, 13*, 155-165.

APPENDICES

Appendix A: Scales for Main Measures Included in the Study

Transportation (Green & Brock, 2000)

(0= disagree strongly, 6= agree strongly)

- While I was watching the episode, activity going on in the room around me was on my mind (R)
- 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 could picture myself in the scene of the events depicted in the episode.
- 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.

Identification (Cohen, 2000)

(0= disagree strongly, 6= agree strongly)

- While viewing the episode, I felt as if I was part of the action.
- While viewing the episode, I forgot myself and was fully absorbed.
- I was able to understand the events in the episode in a manner similar to that in which David understood them.
- I think I have a good understanding of David.
- I tend to understand the reasons why David did what he did.
- While viewing the episode, I could feel the emotions David portrayed.
- During viewing, I felt I could really get inside David's head.
- At key moments in the episode, I felt I knew exactly what David was going through.

Counterargument (Moyer-Gusé et al., 2011; Nabi et al., 2007)

(0= disagree strongly, 6= agree strongly)

- I found myself actively agreeing with the author' main point of the episode. (R)
- I found myself actively disagreeing with what was being presented in the episode.
- I was looking for flaws in the episode's main message.
- It was easy to agree with the arguments made in the message. (R)
- I wanted to "argue back" to what was going on onscreen.

Perceived Vulnerability (Greening & Stoppelbein, 2000)

"To what extent do you believe you are likely to experience the following situations if you drive after drinking?"

(0= no chance, 6= definitely would happen)

- Receiving a citation
- Being arrested
- Being in a motor vehicle accident
- Dying in a motor vehicle accident
- Serving time in jail

Attitudes toward Drinking and Driving (Jewell et al., 2004)

(0= disagree strongly, 6= agree strongly)

"I believe it is okay to drink and drive if..."

- I had only one drink with a meal
- I had a few drinks, but I am the most sober person in the car
- My blood-alcohol content is in the legal range
- Everyone in the car is wearing a seatbelt
- It is a short distance to my house
- Nobody else is in the car
- It is an unplanned emergency
- I had a few drinks, but I feel sober
- It is daytime
- I am not an alcoholic
- There is no other way to get home

- I'm just the passenger

Intention to Avoid Drinking and Driving (Based on Marcil et al., 2001)

(0= extremely unlikely, 6= extremely likely)

“Imagine yourself driving to a party or bar. During the evening, you consume alcohol and at the end of the night you have to go home, but are not sure whether your blood alcohol level exceeds the legal limit. Please rate the following items with that scenario in mind.”

- I will drive after consuming alcohol.
- I will drive a short distance after consuming alcohol.
- I will try to drive my car after drinking alcohol.
- I will drive my car after drinking alcohol if I can find no other way home.

Moral Disengagement toward a Character's Drunk Driving

(0= disagree strongly, 6= agree strongly)

- David should not be blamed since he did not hit any human body
- I believe that in general, David is an ethical person.
- It is understandable that David's drunk driving because he was upset about having a fight with his girlfriend.
- It is understandable that David drove after drinking because he was familiar with the local streets.
- Because David regretted that he had driven drunk, this indicates that he is basically a moral person.
- David should not be blamed because, although he knew that he might lose everything, he finally did not remove the dent on his car.

Moral Disengagement Trait (Moore et al., 2011)

(0= disagree strongly, 6= agree strongly)

- It is okay to spread rumors to defend those you care about
- Taking something without the owner's permission is okay as long as you're just borrowing it.

- Considering the ways people grossly misrepresent themselves, it's hardly a sin to inflate your own credentials a bit.
- People shouldn't be held accountable for doing questionable things when they were just doing what an authority figure told them to do.
- People can't be blamed for doing things that are technically wrong when all their friends are doing it too.
- Taking personal credit for ideas that were not your own is no big deal.
- Some people have to be treated roughly because they lack feelings that can be hurt.
- People who get mistreated have usually done something to bring it on themselves.

Viewing Comfort (Based on Bellman et al., 2009)

“While viewing the episode, how comfortable were you about the following aspects of viewing on the iPad?” (0= no-definitely not, 6= yes-definitely)

- Screen size
- Distance to the screen
- Using headphones
- Holding the device

Alcohol Use Disorders Identification Test (AUDIT) (Saunders et al., 1993)

- How often do you have a drink containing alcohol?
(0= Never, 1= Monthly or less, 2= 2-4 times a month, 3=2-3 times a week, 4= 4 or more times a week)
- How many drinks containing alcohol do you have on a typical day when you are drinking?
(0= 1 or 2 drinks, 1= 3 or 4 drinks, 2=5 or 6 drinks, 3=7,8, or 9 drinks, 4= 10 or more drinks)
- How often do you have 6 or more drinks on one occasion?
(0= Never, 1= less than monthly, 2=monthly, 3=weekly, 4= Daily or almost daily)

Drinking and Driving Behavior (Jewell et al., 2008)

- In the past month, how many times have you driven after drinking one or two drinks within the previous hour?
- In the past month, how many times have you driven after drinking three or more drinks within the previous hour?

Appendix B: Pre-Exposure Questionnaire for Main Study

We have some questions about your media usage.

1. How many hours **on a typical weekday** do you watch video content (e.g., TV programs and films) on any device?
2. How many hours **on a typical weekend day** do you watch video content (e.g., TV programs and films) on any device?
3. How often do you use the following media devices when you watch video content (e.g., TV programs and films)? [Never, Rarely, Sometimes, Often, Always]
 - 1) Television
 - 2) Personal computer
 - 3) Laptop computer
 - 4) Tablet
 - 5) Mobile phone

Next, please read the items below about different situations, and indicate how much you agree or disagree with each statement [0 = disagree strongly, 6 = agree strongly]

1. It is okay to spread rumors to defend those you care about.
2. Taking something without the owner's permission is okay as long as you're just borrowing it.
3. Considering the ways people grossly misrepresent themselves, it's hardly a sin to inflate your own credentials a bit.
4. People shouldn't be held accountable for doing questionable things when they were just doing what an authority figure told them to do.
5. People can't be blamed for doing things that are technically wrong when all their friends are doing it too.
6. Taking personal credit for ideas that were not your own is no big deal.
7. Some people have to be treated roughly because they lack feelings that can be hurt.
8. People who get mistreated have usually done something to bring it on themselves.
9. It would bother me a great deal to think about someone intentionally hurting an animal.
10. Basically, humans have the right to use animals as we see fit.

For this section, we want to ask you about your opinion on health issues. Below are statements or beliefs about various health related issues. Please read each one and indicate how much you agree or disagree. [0 = disagree strongly, 6 = agree strongly]

1. It makes sense to have minor cosmetic surgery rather than spending years feeling bad about my looks.
2. If my blood-alcohol content is in the legal range, driving after drinking is okay.
3. I encourage others to sign up to become organ donors.

4. It is UNLIKELY that I would drive after consuming alcohol.
5. Cosmetic surgery is a good thing because it can help people feel better about themselves.
6. I believe it is okay to drink and drive if I had only one drink with a meal.
7. I would consider having cosmetic surgery if my partner thought it was a good idea.
8. Organ donation allows something positive to come out of a person's death
9. It is LIKELY that I would drive after drinking alcohol if I could find no other way home.
10. I would support other people if they decided to become organ donors

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

1. What is your gender? __ Male __ Female __ Other
2. In what year were you born? _____
3. What is your year in college? __ Freshman __ Sophomore __ Junior __ Senior __ Graduate Student
4. What is your major area of study? _____
5. Which racial or ethnic group(s) do you identify with? (check all that apply)
 African-American/Black White/Caucasian Hispanic/Latino(a)
 Asian/Pacific Islander Native American Other _____

In order to match this survey and the first survey, you need to create an identification code. Please write consecutively:

Last two letters of your FIRST name, last two letters of your LAST name, and your MONTH of birth.

Example) Name: SUSAN LEE. Date of Birth: January 30/1994

→ Identification code: ANEE01

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 an episode of a popular TV show (about 25 minutes). Afterwards, you will be asked to take another online survey that will take about 15-20 minutes to complete. In total, you should expect to spend about 50 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 for Main Study

Thank you for watching the episode of *BoomTown*. Now, we would like to ask some questions on what you are thinking and feeling while you are watching.

When you think back to your experience watching the episode, how much do you agree or disagree with each statement? [0 = disagree strongly, 6 = agree strongly]

1. While I was watching the episode, activity going on in the room around me was on my mind.
2. I was mentally involved in the episode while watching it.
3. After finishing the episode, I found it easy to put it out of my mind.
4. I could picture myself in the scene of the events depicted in the episode.
5. I wanted to learn how the episode ends.
6. The episode affected me emotionally.
7. I found myself thinking of ways the events in the episode could have turned out differently.
8. I found my mind wandering while watching the episode.
9. The events in the episode are relevant to my everyday life.
10. The events in the narrative have changed my life.

Followings are statements about your feelings toward the episode and the main character, David. Please indicate how much you agree or disagree with each statement. [0 = disagree strongly, 6=agree strongly]

1. While viewing the episode, I felt as if I was part of the action.
2. While viewing the episode, I forgot myself and was fully absorbed.
3. I was able to understand the events in the episode in a manner similar to that in which David understood them.
4. I think I have a good understanding of David.
5. I tend to understand the reasons why David did what he did.
6. While viewing the episode, I could feel the emotions David portrayed.
7. During viewing, I felt I could really get inside David's head.
8. At key moments in the episode, I felt I knew exactly what David was going through.

What do you think was the main message the author/producer wanted to make in the episode?

What thoughts or feelings did you have about the MAIN MESSAGE while you were watching the episode? In the space below, please write any thoughts or feelings you had while you were watching that were relevant to the main message.

Next, please indicate how much you agree or disagree with the following statements. [0 = disagree strongly, 6=agree strongly]

“While watching the episode,

1. I found myself actively AGREEING with the author’s main point of the episode. (R)
2. It was easy to agree with the arguments made in the message. (R)
3. I found myself actively DISAGREEING with what was being presented in the episode.
4. I was looking for flaws in the episode’s main message.
5. I wanted to “argue back” to what was going on onscreen.

We want to know your thoughts and feeling about David’s (the main character) drinking and driving. Please indicate how much you agree or disagree with the following statements.

[0 = disagree strongly, 6=agree strongly]

1. David should not be blamed since he did not hit any human being
2. I believe that in general, David is an ethical person.
3. It is understandable that David’s drunk driving because he was upset about having a fight with his girlfriend.
4. It is understandable that David drove after drinking because he was familiar with the local streets.
5. Because David regretted that he had driven drunk, this indicates that he is basically a moral person.
6. David should not be blamed because, although he knew that he might lose everything, he finally did not remove the dent on his car.

How much do you agree or disagree with the following statements regarding to the episode that you just watched? [0 = disagree strongly, 6=agree strongly]

1. The main character David is just like real life.
2. The events in the episode are just like real life.
3. The main character David is like someone I know in real life.
4. Something like this has happened to me or someone close to me

Now, we want to know your thoughts and behaviors about drunk driving.

Regardless of your willingness to do so, imagine that you drive a car after drinking alcohol. Please rate the likelihood that each of the following events would happen to you. [0 = no

chance, 6= definitely would happen]

1. Receiving a citation
2. Being arrested
3. Being in a motor vehicle accident
4. Dying in a motor vehicle accident
5. Serving time in jail

Please indicate how much you agree or disagree with the following statement concerning drinking and driving. [0 = disagree strongly, 6 = agree strongly]

“I believe it is okay to drink and drive if...”

1. I had only one drink with a meal
2. I had a few drinks, but I am the most sober person in the car
3. My blood-alcohol content is in the legal range
4. Everyone in the car is wearing a seatbelt
5. It is a short distance to my house
6. Nobody else is in the car
7. It is an unplanned emergency
8. I had a few drinks, but I feel sober
9. It is daytime
10. I am not an alcoholic
11. There is no other way to get home
12. I'm just the passenger

Now, imagine yourself driving to a party or bar. During the evening, you consume alcohol and at the end of the night you have to go home, but are not sure whether your blood alcohol level exceeds the legal limit.

Please rate the following items with that scenario in mind. [0 = extremely unlikely, 6 = extremely likely]

1. I will drive after consuming alcohol.
2. I will drive a short distance after consuming alcohol.
3. I will try to drive my car after drinking alcohol.
4. I will drive my car after drinking alcohol if I can find no other way home.

Imagine that one of your friends is trying to drive a car after drinking alcohol. How much do you agree or disagree to the following sentences. [0 = disagree strongly, 6 = agree strongly]

1. I will express disapproval of drinking and driving to my friends.
2. I will tell my friends about the dangers of drunken driving.
3. I will show disapproval if one my friends intends to drive after drinking.
4. I will try to stop a friend from drinking and driving.
5. I will try to prevent a friend from driving drunk even if s/he shows resistance or anger.
6. I will suggest that my friend not drink alcohol, if I know that s/he needs to drive.

Now, we want to know your thoughts and feelings about your viewing experience.

While viewing the episode, how comfortable were you about the following aspects of viewing on the iPad? [0 = no-definitely not comfortable, 6 = yes-definitely comfortable]

1. Screen size
2. Distance to the screen
3. Using headphones
4. Holding the device

While viewing the episode, what aspects of using the iPad did you like or dislike compared to traditional television viewing? In the space below, please write any thoughts or feelings you had.

Think back to your experience watching the episode and rate the extent to which you agree or disagree with these items [0 = disagree strongly, 6 = agree strongly]

1. I paid close attention to the episode.
2. The episode was enjoyable.
3. I concentrated closely on the episode.
4. I was bored by this episode.
5. My attention wandered while I was watching the episode.
6. The episode was entertaining.

Please indicate whether the following scenes occurred in the episode you just watched. [Yes or No]

1. David slept in his car with his girlfriend.
2. A homeless person died due to a hit-and-run accident.
3. David worked at a fire station
4. David talked on the phone while he was driving

There are only a few more questions left, about you and your past experience.

1. What is your gender? Male Female Other
2. In what year were you born? _____
3. What is your major area of study? _____

In order to match this survey and the first survey, you need to re-enter the identification code which you created in the first survey. The code was created with following things.

Please write consecutively:

Last two letters of your FIRST name, last two letters of your LAST name, and your MONTH of birth.

Example) Name: SUSAN LEE. Date of Birth: January 30/1994

→ Identification code: ANEE01

Now we want to know about your driving experiences.

1. Do you have a driver's license? Yes No
2. What type(s) of driver's license do you have?
 Valid US driver's license (e.g., a GA license)
 Provisional license
 Learners permit
 Overseas license
 Suspended license
 No license
3. Do you have your own car? Yes No
4. How often do you drive?
 Never
 Less than once a week
 Once a week
 Two or three times a week
 Four or more times a week

Please answer the following questions about your drinking habits. Consider "a drink" to be a can or bottle of beer, a glass of wine, a wine cooler, or one cocktail or a shot of hard liquor (like scotch, gin, or vodka)

1. About how often do you have a drink containing alcohol?
 Never
 Monthly or less
 2 to 4 times a month
 2 to 3 times a week
 4 or more times a week
2. How many drinks containing alcohol do you have on a typical day when you are drinking?
 1 or 2 drinks
 3 or 4 drinks
 5 or 6 drinks
 7, 8 or 9 drinks
 10 or more drinks
3. How often do you have 6 or more drinks on one occasion?
 Never
 Less than monthly
 Monthly

- Weekly
- Daily or almost daily

The following questions deal with your experience with drunk driving. Please consider “a drink” to be a can or bottle of beer, a glass of wine, a wine cooler, or one cocktail or a shot of hard liquor (like scotch, gin, or vodka).

1. Have you ever been a victim of drunk driving? Yes No
2. Do you have any friends or family members who were victims of drunk driving? Yes No
3. In the past month, how many times have you driven after drinking one or two drinks within the previous hour?
4. In the past month, how many times have you driven after drinking three or more drinks within the previous hour?
5. In the past 5 years, have you ever been cited or arrested for drunk driving? Yes No

Thank you very much for participation in this study and completion of the survey. If you would like to find out more information about drunk driving, victim services and so forth, click on the link:

<http://www.madd.org/drunken-driving/>

Appendix D: Pre-Exposure Questionnaire for Pilot Test

We have some questions about your media usage.

1. How many hours **on a typical weekday** do you watch video content (e.g., TV programs and films) on any device?
2. How many hours **on a typical weekend day** do you watch video content (e.g., TV programs and films) on any device?
3. How often do you use the following media devices when you watch video content (e.g., TV programs and films)? [Never, Rarely, Sometimes, Often, Always]
 - 1) Television
 - 2) Personal computer
 - 3) Laptop computer
 - 4) Tablet
 - 5) Mobile phone

Next, please read the items below about different situations, and indicate how much you agree or disagree with each statement [0 = disagree strongly, 6 = agree strongly]

1. It is okay to spread rumors to defend those you care about.
2. Taking something without the owner's permission is okay as long as you're just borrowing it.
3. Considering the ways people grossly misrepresent themselves, it's hardly a sin to inflate your own credentials a bit.
4. People shouldn't be held accountable for doing questionable things when they were just doing what an authority figure told them to do.
5. People can't be blamed for doing things that are technically wrong when all their friends are doing it too.
6. Taking personal credit for ideas that were not your own is no big deal.
7. Some people have to be treated roughly because they lack feelings that can be hurt.
8. People who get mistreated have usually done something to bring it on themselves.
9. It would bother me a great deal to think about someone intentionally hurting an animal.
10. Basically, humans have the right to use animals as we see fit.

For this section, we want to ask you about your opinion on health issues. Below are statements or beliefs about various health related issues. Please read each one and indicate how much you agree or disagree. [0 = disagree strongly, 6 = agree strongly]

1. It makes sense to have minor cosmetic surgery rather than spending years feeling bad about my looks.
2. If my blood-alcohol content is in the legal range, driving after drinking is okay.
3. I encourage others to sign up to become organ donors.
4. Drinking and driving is okay at least everyone in the car is wearing a seatbelt.
5. If I knew there would be no pain or side effects, I would consider trying cosmetic surgery.

6. Doctors might let me die if they knew I was an organ donor.
7. I will drive short distance after consuming alcohol.
8. Cosmetic surgery is a good thing because it can help people feel better about themselves.
9. I will drive my car after drinking alcohol if I can find no other way home.
10. I would consider having cosmetic surgery if my partner thought it was a good idea.
11. Organ donation allows something positive to come out of a person's death
12. If it is an unplanned emergency, drinking and driving might be okay.
13. I would support other people if they decided to become organ donors
14. Daytime driving after drinking is okay.
15. I would think about having cosmetic surgery in order to keep looking young.
16. There is no problem to drive after drinking if I had a few drinks, but I feel sober.
17. People who are unhappy with their physical appearance should consider cosmetic surgery.
18. I believe it is okay to drink and drive if I had only one drink with a meal.
19. Donating organs would allow part of me to live after I die.

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

6. What is your gender? Male Female Other
7. In what year were you born? _____
8. What is your year in college? Freshman Sophomore Junior Senior Graduate Student
9. What is your major area of study? _____
10. Which racial or ethnic group(s) do you identify with? (check all that apply)
 African-American/Black White/Caucasian Hispanic/Latino(a)
 Asian/Pacific Islander Native American Other _____

In order to match this survey and the first survey, you need to create an identification code.

Please write consecutively:

Last two letters of your FIRST name, last two letters of your LAST name, and your MONTH of birth.

Example) Name: SUSAN LEE. Date of Birth: January 30/1994

→ Identification code: ANEE01

**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 an episode of a popular TV show (about 25 minutes). Afterwards, you will be asked to take another online survey that will take about 15-20

minutes to complete. In total, you should expect to spend about 50 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 E: Post-Exposure Questionnaire for Pilot Test

Thank you for watching the episode of *BoomTown*. Now, we would like to ask some questions on what you are thinking and feeling while you are watching.

When you think back to your experience watching the episode, how much do you agree or disagree with each statement? [0 = disagree strongly, 6 = agree strongly]

1. While I was watching the episode, activity going on in the room around me was on my mind.
2. I was mentally involved in the episode while watching it.
3. After finishing the episode, I found it easy to put it out of my mind.
4. I could picture myself in the scene of the events depicted in the episode.
5. I wanted to learn how the episode ends.
6. The episode affected me emotionally.
7. I found myself thinking of ways the events in the episode could have turned out differently.
8. I found my mind wandering while watching the episode.
9. The events in the episode are relevant to my everyday life.
10. The events in the narrative have changed my life.

Followings are statements about your feelings toward the episode and the main character, David. Please indicate how much you agree or disagree with each statement. [0 = disagree strongly, 6=agree strongly]

1. While viewing the episode, I felt as if I was part of the action.
2. While viewing the episode, I forgot myself and was fully absorbed.
3. I was able to understand the events in the episode in a manner similar to that in which David understood them.
4. I think I have a good understanding of David.
5. I tend to understand the reasons why David did what he did.
6. While viewing the episode, I could feel the emotions David portrayed.
7. During viewing, I felt I could really get inside David's head.
8. At key moments in the episode, I felt I knew exactly what David was going through.

What do you think was the main message the author/producer wanted to make in the episode?

What thoughts or feelings did you have about the MAIN MESSAGE while you were watching the episode? In the space below, please write any thoughts or feelings you had while you were watching that were relevant to the main message.

Next, please indicate how much you agree or disagree with the following statements. [0 = disagree strongly, 6=agree strongly]

“While watching the episode,

1. I found myself actively agreeing with the author’s main point of the episode. (R)
2. I found myself actively disagreeing with what was being presented in the episode.
3. I was looking for flaws in the episode’s main message.
4. It was easy to agree with the arguments made in the message. (R)
5. I wanted to “argue back” to what was going on onscreen.

We want to know your thoughts and feeling about David’s (the main character) drinking and driving. Please indicate how much you agree or disagree with the following statements.

[0 = disagree strongly, 6=agree strongly]

1. David should not be blamed since he did not hit any human being
2. I believe that in general, David is an ethical person.
3. It is understandable that David’s drunk driving because he was upset about having a fight with his girlfriend.
4. It is understandable that David drove after drinking because he was familiar with the local streets.
5. Because David regretted that he had driven drunk, this indicates that he is basically a moral person.
6. David should not be blamed because, although he knew that he might lose everything, he finally did not remove the dent on his car.

How much do you agree or disagree with the following statements regarding to the episode that you just watched? [0 = disagree strongly, 6=agree strongly]

1. The main character David is just like real life.
2. The events in the episode are just like real life.
3. The main character David is like someone I know in real life.
4. Something like this has happened to me or someone close to me

Now, we want to know your thoughts and behaviors about drunk driving.

Regardless of your willingness to do so, imagine that you drive a car after drinking alcohol. Please rate the likelihood that each of the following events would happen to you. [0 = no

chance, 6= definitely would happen]

1. Receiving a citation
2. Being arrested
3. Being in a motor vehicle accident
4. Dying in a motor vehicle accident
5. Serving time in jail

Please indicate how much you agree or disagree with the following statement concerning drinking and driving. [0 = disagree strongly, 6 = agree strongly]

“I believe it is okay to drink and drive if...”

1. I had only one drink with a meal
2. I had a few drinks, but I am the most sober person in the car
3. My blood-alcohol content is in the legal range
4. Everyone in the car is wearing a seatbelt
5. It is a short distance to my house
6. Nobody else is in the car
7. It is an unplanned emergency
8. I had a few drinks, but I feel sober
9. It is daytime
10. I am not an alcoholic
11. There is no other way to get home
12. I'm just the passenger

Now, imagine yourself driving to a party or bar. During the evening, you consume alcohol and at the end of the night you have to go home, but are not sure whether your blood alcohol level exceeds the legal limit.

Please rate the following items with that scenario in mind. [0 = extremely unlikely, 6 = extremely likely]

1. I will drive after consuming alcohol.
2. I will drive a short distance after consuming alcohol.
3. I will try to drive my car after drinking alcohol.
4. I will drive my car after drinking alcohol if I can find no other way home.

Imagine that one of your friends is trying to drive a car after drinking alcohol. How much do you agree or disagree to the following sentences. [0 = disagree strongly, 6 = agree strongly]

1. I will express disapproval of drinking and driving to my friends.
2. I will tell my friends about the dangers of drunken driving.
3. I will show disapproval if one my friends intends to drive after drinking.
4. I will try to stop a friend from drinking and driving.
5. I will try to prevent a friend from driving drunk even if s/he shows resistance or anger.
6. I will suggest that my friend not drink alcohol, if I know that s/he needs to drive.

Now, we want to know your thoughts and feelings about your viewing experience.

While viewing the episode, how comfortable were you about the following aspects of viewing on the iPad? [0 = no-definitely not comfortable, 6 = yes-definitely comfortable]

1. Screen size
2. Distance to the screen
3. Using headphones
4. Holding the device

While viewing the episode, what aspects of using the iPad did you like or dislike compared to traditional television viewing? In the space below, please write any thoughts or feelings you had.

Think back to your experience watching the episode and rate the extent to which you agree or disagree with these items [0 = disagree strongly, 6 = agree strongly]

1. I paid close attention to the episode.
2. The episode was enjoyable.
3. I concentrated closely on the episode.
4. I was bored by this episode.
5. My attention wandered while I was watching the episode.
6. The episode was entertaining.

Please indicate whether the following scenes occurred in the episode you just watched. [Yes or No]

1. David slept in his car with his girlfriend.
2. A homeless person died due to a hit-and-run accident.
3. David worked at a fire station
4. David talked on the phone while he was driving

There are only a few more questions left, about you and your past experience.

1. What is your gender? Male Female Other
2. In what year were you born? _____
3. What is your major area of study? _____

In order to match this survey and the first survey, you need to re-enter the identification code which you created in the first survey. The code was created with following things.

Please write consecutively:

Last two letters of your FIRST name, last two letters of your LAST name, and your MONTH of birth.

Example) Name: SUSAN LEE. Date of Birth: January 30/1994

→ Identification code: ANEE01

Now we want to know about your driving experiences.

1. Do you have a driver's license? Yes No
2. What type(s) of driver's license do you have?
 Valid US driver's license (e.g., a GA license)
 Provisional license
 Learners permit
 Overseas license
 Suspended license
 No license
3. Do you have your own car? Yes No
4. How often do you drive?
 Never
 Less than once a week
 Once a week
 Two or three times a week
 Four or more times a week

Please answer the following questions about your drinking habits. Consider "a drink" to be a can or bottle of beer, a glass of wine, a wine cooler, or one cocktail or a shot of hard liquor (like scotch, gin, or vodka)

1. About how often do you have a drink containing alcohol?
 Never
 Monthly or less
 2 to 4 times a month
 2 to 3 times a week
 4 or more times a week
2. How many drinks containing alcohol do you have on a typical day when you are drinking?
 1 or 2 drinks
 3 or 4 drinks
 5 or 6 drinks
 7, 8 or 9 drinks
 10 or more drinks
3. How often do you have 6 or more drinks on one occasion?
 Never
 Less than monthly
 Monthly

- Weekly
- Daily or almost daily

The following questions deal with your experience with drunk driving. Please consider “a drink” to be a can or bottle of beer, a glass of wine, a wine cooler, or one cocktail or a shot of hard liquor (like scotch, gin, or vodka).

1. Have you ever been a victim of drunk driving? Yes No
2. Do you have any friends or family members who were victims of drunk driving? Yes No
3. In the past month, how many times have you driven after drinking one or two drinks within the previous hour?
4. In the past month, how many times have you driven after drinking three or more drinks within the previous hour?
5. In the past 5 years, have you ever been cited or arrested for drunk driving? Yes No

Thank you very much for participation in this study and completion of the survey. If you would like to find out more information about drunk driving, victim services and so forth, click on the link:

<http://www.madd.org/drunk-driving/>

Appendix F: Informed Consent for Main Study

**Georgia State University
Department of Communication
Informed Consent**

Title. Viewers' Involvement and Responses to an Entertainment Narrative in Personal Television Environment

Principal Investigator. Cynthia Hoffner
Student Principal Investigator. Sangmi Lee

Purpose. You are invited to participate in a research study. This study focuses on how college students respond to a television drama including unhealthy behaviors when watching on a personal media device. A total of 750 participants will be recruited from classes at GSU. You are being asked to volunteer because you are a GSU college student. The study will be conducted in two parts (one online, one in a classroom on campus) and will take a total of about 60 minutes. If you participate, you will be required to complete a 10-minute online survey and then attend a 50-minute session on campus that includes viewing a TV drama (approximate 25 minutes) and completing a second survey.

Procedures. This study involves two parts. First you will complete an online survey that will take about 10 minutes. When you are done, you will sign up for a time to do the second part of the study. In that part of the study, you will be asked to come to a classroom on the Georgia State University Campus. In the classroom, you will watch a short segment from a TV drama. Afterward, you will be complete a second online survey. The survey will ask questions about your involvement to the TV show, and attitude and behaviors on some health issues. The lab session will last no longer than 50 minutes.

Compensation: For participating in the study, you will receive extra credit in one course. Two (2) percent of the total points available in the course will be given to you when you complete both parts of the study. No compensation will be provided if you participate in only the first part of the study. For the compensation, you will be asked to submit your name and course information separately from the survey. If you decide not to participate but would still like to earn the extra credit, you can review two articles related to your course and write a one-page response paper about each article. To take advantage of this option, please notify the Student Principal Investigator before the study recruitment has ended.

Risks. In this study, you will not have any more risks than you would in a normal day of life. The episode that you will watch presents fictional depictions of risky behaviors and some participants may experience some discomfort to the content. However, the episode is from a popular prime time drama that aired on network television, so the depictions are consistent with what most people encounter during their regular television viewing. However, a link to information about the unhealthy behaviors shown in the show will be provided at the end of the second survey.

Benefits. Participating in this research may not benefit you personally. But the results should contribute to understanding how portrayal of social issues in television dramas affect people's lives.

Voluntary Participation and Withdrawal. Participation in the research is voluntary. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may skip questions or stop participating at any time. The survey allows you to skip questions at any point. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

Confidentiality. We will keep your records private to the extent allowed by law. We will not ask for any identifying information about you, except for the purpose of assigning extra credit points. Your name and course information (provided by you on a separate page) will be stored in a separate file from your responses to the surveys; no identifying information will be connected to your answers. The information you provide on the surveys will be stored on a firewall-protected computer in the Student-PI's home. Only the researchers will have access to the data. 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). The results will be summarized and reported in group form. You will not be identified personally.

Contact Persons. Contact Sangmi Lee at 404-435-3836 or Dr. Cynthia Hoffner at 404-413-5650 or choffner@gsu.edu if you have questions, concerns, or complaints about this study. You can also call if think you have been harmed by the study. Call Susan Vogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu if you want to talk to someone who is not part of the study team. You can talk about questions, concerns, or suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

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

I agree

Appendix G: Informed Consent for Pilot Test

Georgia State University
Department of Communication
Informed Consent

Title. Viewers' Involvement and Responses to an Entertainment Narrative in Personal Television Environment

Principal Investigator. Cynthia Hoffner

Student Principal Investigator. Sangmi Lee

Purpose. You are invited to participate in a research study. This study focuses on how college students respond to a television drama including unhealthy behaviors when watching on a personal media device. A total of 50 participants will be recruited from classes at GSU. You are being asked to volunteer because you are a GSU college student. The study will be conducted in two parts (one online, one in a classroom on campus) and will take a total of about 70 minutes. If you participate, you will be required to complete a 10-minute online survey and then attend a 60-minute session on campus that includes viewing a TV drama (approximate 25 minutes), completing a second survey, and a group discussion.

Procedures. This study involves two parts. First you will complete an online survey that will take about 10 minutes. When you are done, you will sign up for a time to do the second part of the study. In that part of the study, you will be asked to come to a classroom on the Georgia State University Campus. In the classroom, you will watch a short segment from a TV drama. Afterward, you will be complete a second online survey. The survey will ask questions about your involvement to the TV show, and attitude and behaviors on some health issues. After completing the survey, there will be a short group discussion asking your opinions on this study including materials and measures. The lab session will last no longer than 60 minutes.

Compensation: For participating in the study, you will receive extra credit in one course. Two (2) percent of the total points available in the course will be given to you when you complete both parts of the study. No compensation will be provided if you participate in only the first part of the study. For the compensation, you will be asked to submit your name and course information separately from the survey. If you decide not to participate but would still like to earn the extra credit, you can review two articles related to your course and write a one-page response paper about each article. To take advantage of this option, please notify the Student Principal Investigator before the study recruitment has ended.

Risks. In this study, you will not have any more risks than you would in a normal day of life. The episode that you will watch presents fictional depictions of risky behaviors and some participants may experience some discomfort to the content. However, the episode is from a popular prime time drama that aired on network television, so the depictions are consistent with what most people encounter during their regular television viewing. However, a link to information about the unhealthy behaviors shown in the show will be provided at the end of the second survey.

Benefits. Participating in this research may not benefit you personally. But the results should contribute to understanding how portrayal of social issues in television dramas affect people's lives.

Voluntary Participation and Withdrawal. Participation in the research is voluntary. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may skip questions or stop participating at any time. The survey allows you to skip questions at any point. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

Confidentiality. We will keep your records private to the extent allowed by law. We will not ask for any identifying information about you, except for the purpose of assigning extra credit points. Your name and course information (provided by you on a separate page) will be stored in a separate file from your responses to the surveys; no identifying information will be connected to your answers. The information you provide on the surveys will be stored on a firewall-protected computer in the Student-PI's home. Only the researchers will have access to the data. 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). Because this study includes a short group discussion, there are limits to confidentiality. Participants will be asked not to reveal what was discussed in the group, but you should also be warned that researchers do not have complete control of the confidentiality of the content of discussion. The results will be summarized and reported in group form. You will not be identified personally.

Contact Persons. Contact Sangmi Lee at 404-432-3836 or Dr. Cynthia Hoffner at 404-413-5650 or choffner@gsu.edu if you have questions, concerns, or complaints about this study. You can also call if think you have been harmed by the study. Call Susan Vogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu if you want to talk to someone who is not part of the study team. You can talk about questions, concerns, or suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

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

I agree

Appendix H: Recruitment Messages for Main Study

Request Permission to Invite Students for the Study:

I am emailing you to see if you would consider allowing students in your course to participate in a research study that I am doing on personal television viewing for my dissertation. My chair is Dr. Cynthia Hoffner.

The study involves an online survey (NO class time) and a lab session (which student reserve out of class time) that explores how people respond to a television drama when watching on a personal media device.

The study involves two parts and should take about 60-minute total. For participation, students would receive **extra credit equal to 2% (two percent) of the total points in your course only when they participate in both parts.** As you may know, the IRB requires the same compensation to participants in all classes, so I had to select an amount of extra credit that I thought would be appropriate in this case. The study would like to collect data for about four weeks in October, if possible.

Here's how participation would work:

- 1) If you agree, I would ask that you **forward an email invitation** from me to your students (using their student email addresses available on GoSolar). The invitation will include **a link to the study on SurveyMonkey.com.** I also have a **brief message to be shared in class beforehand**, to alert students to the email. I could visit your class to share the message, or you could make the announcement yourself.
- 2) I will then prepare an **alphabetized list of your students who should receive extra credit.** I am required to offer an alternative assignment for extra credit, which will be described in the invitation, which I will handle. If any student in your class contacts me about this option, I will email the student two articles on the topic of your course and the student will write a one-page response paper about each article for extra credit. I will review these papers – you will not need to do anything. The student would then be included on the list of students who should receive extra credit.

If allowing your students to participate in this study (for 2% extra credit) is something you would consider, I will be happy to answer any additional questions you may have. Of course I will not proceed with the study until I have received IRB approval.

Thanks so much for considering this request!

Sincerely,
 Sangmi Lee, Student Principal Investigator
 Department of Communication, Georgia State University
 Contact information: 404-432-3836 or slee106@student.gsu.edu

Class Announcement about Personal Television Study (Extra Credit Opportunity):

I want to let you know that you will soon be receiving an email invitation to participate in a research study that explores how people respond to a television drama including unhealthy behaviors when watching on a personal media device. The study, which is conducted by Sangmi Lee and Dr. Cynthia Hoffner in the Department of Communication, involves completing an online survey (about 10 minutes) and attending on a lab session in GSU campus (about 50 minutes). The email invitation will take you to a Consent Form and then the short survey. At that point you will be able to sign up online for a lab session.

Participating in the study is voluntary. For your participation, you will receive extra credit in one course: 2 percent of the total points available in the course when you complete both two parts of the study. No extra credit will be provided if you participate in only the first part of the study. If you decide not to participate but would still like to earn the extra credit, the research invitation describes an alternative way to earn the extra credit.

The invitation also contains more details about the study, as well as the contact information for the researchers if you have any questions. So, expect to receive this invitation, forwarded to your GSU student email address, in the next day or two.

The researchers plan to have the survey open from November 5th and the lab session will be between November 10th and November 21st

Sincerely,

Sangmi Lee, Student Principal Investigator
 Cynthia, Professor, Principal Investigator
 Department of Communication, Georgia State University
 Contact information: 404-432-3836 or slee106@student.gsu.edu

Invitation to Participate in Research:

Dear Student,

This email is an invitation to participate in a research study that we are doing at GSU. The study explores how college students respond to a television drama including unhealthy behaviors when watching on a personal media device. The study involves two parts (one online, one in a classroom on GSU campus) and will take total of about 60 minutes. If you participate, you will be required to complete a 10-minute online survey and then attend a 50 minute session on campus that includes viewing a TV drama (approximate 25 minutes) and completing a second survey.

A total of 750 participants will be recruited for this study. You are invited to participate because you are a college student. Participating in this research is voluntary.

For your participation in the research, you will receive extra credit in one course: 2 percent of the total points available in the course will be given to you when you complete both two parts of the study. No extra credit will be provided if you participate in only the first part of the study. If you decide not to participate but would still like to earn the extra credit, you can review two articles related to your course and write one-page response paper of each article. To take advantage of this option, please notify the principal investigator before study recruitment has ended.

If you are interested in participating, click the link below. This will take you to an Informed Consent Form. If you decide to participate after reading the consent form, click “I agree” and you will be taken to the first page of the survey.

At the end of the survey there is another link that will take you to a separate page, where you can reserve a session for the second part of study. Click one of the available session slots and enter your name on the slot. Please make a memo the time and classroom location which you reserve and come to the classroom on time.

We plan to have the survey and classroom sessions open from November 5th

Link to the first survey and the web page to reserve a lab session: [LINK INSERTED HERE](#)

Please feel free to contact us with any questions. Thank you for considering your participation in this research.

Sincerely,

Sangmi Lee, Student Principal Investigator
Cynthia, Professor, Principal Investigator
Department of Communication, Georgia State University
Contact information: 404-432-3836 or slee106@student.gsu.edu

Appendix I: Recruitment Messages for Pilot Study

Request Permission to Invite Students for the Study:

I am emailing you to see if you would consider allowing students in your course to participate in a research study that I am doing on personal television viewing for my dissertation. My chair is Dr. Cynthia Hoffner.

The study involves an online survey (NO class time) and a lab session (which student reserve out of class time) that explores how people respond to a television drama when watching on a personal media device.

The study involves two parts and should take about 70-minute total. For participation, students would receive **extra credit equal to 2% (two percent) of the total points in your course only when they participate in both.** As you may know, the IRB requires the same compensation to participants in all classes, so I had to select an amount of extra credit that I thought would be appropriate in this case. The study would like to collect data for about four weeks in October, if possible.

Here's how participation would work:

- 1) If you agree, I would ask that you **forward an email invitation** from me to your students (using their student email addresses available on GoSolar). The invitation will include **a link to the study on SurveyMonkey.com.** I also have a **brief message to be shared in class beforehand**, to alert students to the email. I could visit your class to share the message, or you could make the announcement yourself.
- 2) I will then prepare an **alphabetized list of your students who should receive extra credit.** I am required to offer an alternative assignment for extra credit, which will be described in the invitation, which I will handle. If any student in your class contacts me about this option, I will email the student two articles on the topic of your course and the student will write a one-page response paper about each article for extra credit. I will review these papers – you will not need to do anything. The student would then be included on the list of students who should receive extra credit.

If allowing your students to participate in this study (for 2% extra credit) is something you would consider, I will be happy to answer any additional questions you may have. Of course I will not proceed with the study until I have received IRB approval.

Thanks so much for considering this request!

Sincerely,
 Sangmi Lee, Student Principal Investigator
 Department of Communication, Georgia State University
 Contact information: 404-432-3836 or slee106@student.gsu.edu

Class Announcement about Personal Television Study (Extra Credit Opportunity):

I want to let you know that you will soon be receiving an email invitation to participate in a research study that explores how people respond to a television drama including unhealthy behaviors when watching on a personal media device. The study, which is conducted by Sangmi Lee and Dr. Cynthia Hoffner and Sangmi Lee in the Department of Communication, involves completing an online survey (about 10 minutes) and attending on a lab session in GSU campus (about 60 minutes). The email invitation will take you to a Consent Form and then the short survey. At that point you will be able to sign up online for a lab session.

Participating in the study is voluntary. For your participation, you will receive extra credit in one course: 2 percent of the total points available in the course when you complete both two parts of the study. No extra credit will be provided if you participate in only the first part of the study. If you decide not to participate but would still like to earn the extra credit, the research invitation describes an alternative way to earn the extra credit.

The invitation also contains more details about the study, as well as the contact information for the researchers if you have any questions. So, expect to receive this invitation, forwarded to your GSU student email address, in the next day or two.

The researchers plan to have the survey open from October 10, 2014.

Sincerely,

Sangmi Lee, Student Principal Investigator
 Cynthia Hoffner, Professor, Principal Investigator
 Department of Communication, Georgia State University
 Contact information: 404-432-3836 or slee106@student.gsu.edu

Invitation to Participate in Research:

Dear Student,

This email is an invitation to participate in a research study that we are doing at GSU. The study explores how college students respond to a television drama including unhealthy behaviors when watching on a personal media device. The study involves two parts (one online, one in a classroom on GSU campus) and will take total of about 70 minutes. If you participate, you will be required to complete a 10-minute online survey and then attend a 60-minute session on campus that includes viewing a TV drama (approximate 25 minutes), completing a second survey, and a short group discussion.

A total of 750 participants will be recruited for this study. You are invited to participate because you are a college student. Participating in this research is voluntary.

For your participation in the research, you will receive extra credit in one course: 2 percent of the total points available in the course will be given to you when you complete both two parts of the

study. No extra credit will be provided if you participate in only the first part of the study. If you decide not to participate but would still like to earn the extra credit, you can review two articles related to your course and write one-page response paper of each article. To take advantage of this option, please notify the principal investigator before study recruitment has ended.

If you are interested in participating, click the link below. This will take you to an Informed Consent Form. If you decide to participate after reading the consent form, click “I agree” and you will be taken to the first page of the survey.

At the end of the survey there is another link that will take you to a separate page, where you can reserve a session for the second part of study. Click one of the available session slots and enter your name on the slot. Please make a memo the time and classroom location which you reserve and come to the classroom on time.

We plan to have the survey and classroom sessions open from October 10, 2014.

Link to the first survey and the web page to reserve a lab session: LINK INSERTED HERE

Please feel free to contact us with any questions. Thank you for considering your participation in this research.

Sincerely,

Sangmi Lee, Student Principal Investigator
Cynthia Hoffner, Professor, Principal Investigator
Department of Communication, Georgia State University
Contact information: 404-432-3836 or slee106@student.gsu.edu

Appendix J: Codebook for Response to Watching the Drama on the iPad

Coding Instructions

1. On the coding sheet, record the subject ID.
2. Read each participant's answer, and identify which of the codes are represented in the answer.
3. List all the codes that occur in the response, but list a given code only once per individual response.

Codes

- **Subject ID:** Write the number of the participant.
- **What aspects of personal television are present?**

Not Specified: Response is relevant to the experience of iPad TV, but it does not clearly mention any specific aspects of iPad TV; rather, it presents general thoughts of the experience of watching the episode on the iPad.

10 – Neutral: response is neither positive nor negative.

11 – Positive in general

12 – Negative in general

Screen: Response references screen size, video quality, surface glaring or banner bar that appeared on the screen.

20 – Neutral on iPad screen: response is about the screen but the answer was not clearly positive nor negative.

21 – Positive on iPad screen

22 – Negative on iPad screen

Viewing Distance: Response includes distance between the screen and viewer.

30 – Neutral on iPad viewing distance

31 – Positive on iPad viewing distance

32 – Negative on iPad viewing distance

Sound: Response is about the sound, including the feeling of using headphones, blocking outside sounds, or sound quality.

40 – Neutral on iPad sound

41 – Positive on iPad sound

42 – Negative on iPad sound

Placing the Device: Response references placing the device, including holding, standing or moving the device.

50 – Neutral on placing iPad

51 – Positive on placing iPad

52 – Negative on placing iPad

Personalization: Response mentions aspects of the personal and private nature of viewing a program on the device.

60 – Neutral on personalization of iPad

61 – Positive on personalization of iPad

62 – Negative on personalization of iPad

Convenience with Additional Functions: Response references iPad TV's convenience due to the various additional functions, including accessibility, portability, or easy adjustment.

70 – Neutral on additional functions of iPad

71 – Positive on additional functions of iPad

72 – Negative on additional functions of iPad