ARE WE GOING IN THERE? THE ROLE OF BRIEF NARRATIVES (TV ADS AND

PSAS) IN NARRATIVE TRANSPORTATION AND SECOND-ORDER

CULTIVATION EFFECTS

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DEDICATION

For Margie,

Thank-You

Paisley—Desert—Venice

Mitakuye Oyasin

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ARE WE GOING IN THERE? THE ROLE OF BRIEF NARRATIVES (TV ADS AND PSAS) IN NARRATIVE TRANSPORTATION AND SECOND-ORDER CULTIVATION EFFECTS

MICHAEL J. QUILLIN

ABSTRACT

This study examined the role of brief narratives, such as those found in television commercials (TV Ads) and Public Service Announcements (PSAs), in the dissemination of values messages as mediated by narrative transportation and second-order cultivation effects. Undergraduate students from a midwestern university participated in an experiment administered through the SurveyMonkey website; two experimental groups (TV Ads n=85 and PSAs n=69) each viewed two separate (one dramatic, one humorous) value-laden brief narrative video segments completing transportation, attention, materialism, and altruism response scales following each exposure. Measures taken prior to exposure included television affinity and need for cognition among others. Findings confirm brief narratives do elicit transportation, and among those who watch more television higher levels of transportation were reported. Psychological processes were found to increase the likelihood of experiencing transportation; in particular those paying more attention and having a high need for cognition were more likely to be transported. Additionally, transportation had a modest impact on a number of materialism measures including the summed materialism scale while altruism produced contradictory results. An anomaly was found with the humorous TV ad, raising questions about the role of character identification in the production of narrative transportation.

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"We've got a form of brainwashing going on in our country," Morrie sighed, "Do you know how they brainwash people? They repeat something over and over. And that's what we do in this country. Owning things is good. More money is good. More property is good. More commercialism is good. *More is good. More is good.* We repeat it—and have it repeated to us—over and over until nobody bothers to even think otherwise. The average person is so fogged up by all this, he has no perspective on what's really important anymore.

Wherever I went in my life, I met people wanting to gobble up something new. Gobble up a new car. Gobble up a new piece of property. Gobble up the latest toy. And then they want to tell you about it. 'Guess what I got? Guess what I got?'

You know how I always interpreted that? These were people so hungry for love that they were accepting substitutes. They were embracing material things and expecting a sort of hug back. But it never works. You can't substitute material things for love or for gentleness or for tenderness or for a sense of comradeship.

Money is not a substitute for tenderness, and power is not a substitute for tenderness. I can tell you, as I'm sitting here dying, when you most need it, neither money nor power will give you the feeling you're looking for, no matter how much of them you have."

Morrie Schwartz

(Professor of Sociology, as quoted in

Albom, 1997, pp. 124-125)

CHAPTER I

INTRODUCTION AND RATIONALE

Narratives have been used throughout history to inform, educate, and entertain diverse publics and, according to Rigney (2010), the past 50+ years have seen "narratives" become a central research concept in a wide range of disciplines. Narratives permeate our lives; indeed if we tell the story of our life, an autobiography, our life becomes a narrative (Brunner, 2004). The entirety of human history is a narrative story. Scott (2011, p. 203) echoes this fact suggesting that all "historians are storytellers" and that the most prominent storytellers have a unique ability to share the complexities and incongruities of human nature and experience through narratives. Jovchelovitch (2012) sees narratives as the very fabric enmeshing our cognitions to the perceptual experience of life itself—"narratives constitute the very architecture of human thinking as a modality of thought, a mode of operation of mind and a constructive collective tool for remembering and defining reality" (p. 443). Narratives present many fascinating opportunities for study and, following current research trends, this thesis will examine television narratives and their potential to elicit narrative transportation—a phenomenon whereby the person exposed to a narrative becomes transported into the story, actually experiencing the narrative emotionally, cognitively, and sometimes physically to the point where they temporarily lose contact with their present reality. Bezdek, Foy, and

Gerrig (2013) suggest that when viewers are immersed in a filmic narrative they often generate the same mental and physical responses elicited by real-world events indicating active participation in the narrative experience. Television narratives may differ from those of theatrical film but their potential to prompt similar depths of immersion is an interesting thought to ponder—as we will do following a more detailed description and introduction to this study.

Many of us, at some time in our lives, have experienced the effect of being absorbed into the diegesis (story world) of a book, movie, television program, musical performance, or other presentation. From a theoretical perspective, this absorption into mediated content must certainly have impacts beyond those of our normal waking experience. This is precisely the driving force behind Green and Brock's (2000) narrative transportation model. Green and Brock suggest transportation into a narrative world (narratives are present in many forms: Written, televised, computer generated, film, etc.) can have long term impacts on real-world beliefs. Further, the more immersed an individual becomes into a narrative the more likely she/he will be changed by the experience—a change that could affect real-world attitudes and beliefs. These effects appear consistent whether narratives are fictional or fact and transported individuals are more likely to attribute as factual narratives that are fictional thus adding to potential impacts (Green, 1996; Green & Brock, 2000, 2002). From this perspective, narrative immersion could play a unique role in the construction of social and personal reality including the adoption of values or values messages embedded in narrative scripts.

Television is a narrative vehicle and narrative scripts permeate television content. From reality TV to scripted comedies and dramas, from news programming to

infomercials and beyond, narratives drive television programming[1]. Given that narratives occur in many forms we must also be aware within each form a narrative will assume various lengths. Therefore, a television show, for instance, will contain a number of narrative lengths: a) the entirety of the show is one long narrative; b) segments occurring between commercial breaks could be considered a short version of the general narrative expressed in the program; c) even shorter narratives may exist in each segment of a program—from act to act or scene to scene. Narratives could potentially exist in much shortened lengths. From this perspective, short narratives may continue with the ensuing television commercials (TV ads), public service announcements (PSAs), and station promotions (promos). Do these short narratives have the potential to transport an audience akin to longer narratives? This question needs further investigation, hence, this study intends to examine whether viewers will experience transportation into a brief narrative such as those occurring during commercial breaks from television programs.

More specifically, the aim of this study is to investigate the potential for television viewers to be transported into brief narratives such as those occurring in TV ads. This question, and others in this thesis, have not been examined in the existing literature and are topics in need of empirical research. Although Reinhart and Anker (2012) did look at transportation and psychological reactance to organ donor public service announcements which explored transportation into a brief narrative (a 30-second PSA), significantly different, this thesis will look at the potential for transportation into brief *advertising* narratives. Brief narrative public service announcements will be used in this study also, as means of contrasting brief *advertising* narratives when looking at effects. Examining

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the role of transportation into brief *advertising* narratives will advance the knowledge base of social science research as well as that of cognitive psychology.

Previous research (Deighton, Romer, & McQueen, 1989; Green, 1996; Green & Brock, 2000; Shrum, Burroughs, & Rindfleisch, 2005) suggests transportation occurs while viewing television narratives so it stands to reason transportation could also occur while viewing the brief narratives that may be presented in TV ads. Television commercials often use drama and humor (Deighton, Romer, & McQueen, 1989) (among other means) to advertise products thereby creating a narrative vehicle for potential transportation. Understanding potential impacts of television advertising is important because television commercials contain value-laden content and ads typically engulf approximately one-third of program content; this equals high exposure for viewers. Considering the fact that viewers are exposed to increasing amounts of television advertising, up from nine minutes per hour in the 1960's to approximately twenty minutes per hour now, or about thirty-three percent of an hour long show in 2012 (Simmons, 2010; see also Schmidt, 2014), it would be beneficial to better understand the potential for brief *advertising* narratives to elicit transportation and whether the transportation experience opens the possibility for impacts on real-world attitudes, beliefs, and values. To explore whether narrative transportation may affect attitudes, beliefs, and values this thesis will employ values measures to test for cultivation effects.

If values messages are being cultivated during transportation experiences underlying processes may be at work. Cultivation theory (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002) provides a potential means for understanding these media effects. At the very foundation of cultivation theory exists the idea that television

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exposes viewers to a consistent blend of images and messages which may then become cognitive templates for socialization and information about reality. As individuals navigate their lives these cognitive templates may be accessed to aid in the construction of social reality. Bandura (1986, 2001) saw the potential for modeling of the values, portrayals, and ideologies prevalent in television content while developing and refining his Social Cognitive Theory. Bandura's idea of a bidirectional interaction between personal, affective, cognitive and biological conditions, behavioral elements, and environmental events fits well with cultivation theory's second-order effect which suggests cognitive imprinting of mediated information may occur during the processing of a media experience. Further research is necessary to examine the influence narrative transportation may have on second-order cultivation effects in the potential acceptance and adoption of values portrayed by the media. So, this thesis will examine the possibility for brief narratives to elicit transportation and whether the transportation experience impacts values responses. Hence, this study will extend cognitive psychology and social science research literature by examining the ways transportation moderates narrative effects.

Statement of Problem

The impact and influence of television on the mass populace is a highly debated subject. According to Gerbner et al. (2002), television viewing leads to "the cultivation of shared conceptions of reality among otherwise diverse publics" (p. 44). Shrum and Lee (2012) further advance cultivation theory by proposing an advanced, detailed model of second-order cultivation effects whereby information is processed spontaneously, in real time, during the viewing experience and that information may then be used to either

update current real-world thoughts, attitudes, and beliefs or it may serve as a foundation to construct new real-world judgments that may have the ability to influence viewer attitudes, beliefs, and values. These second-order effects, according to Shrum and Lee, are impacted by viewer attention, involvement and transportation into the program narrative. As self conscious beings we are always generating internal thoughts and dialogues based on our experience of and interaction with the material world; through second-order cultivation effects this internal dialogue, ever at work, may be influenced by our media viewing experience. This second-order linkage provides a means for values messages to embed in our consciousness.

Because of the social and cultural significance of value systems, it is important to better understand factors influencing values. Psychologists and sociologists have been investigating, writing about, and debating the social impacts of individual and cultural values (Fromm, 1956; Maslow, 1962; May, 1950, 1953; Riesman, 1950) for many years including concerns about modern trends which could lead to a sense of "emptiness" in the individual, or to an "other directedness" stripping one of the powers to self-direct their life. A survey of attitudes of first year college students may serve as an indicator of modern social and cultural values trends; according to Astin, Green, and Korn (1990; as cited in Schaefer & Lamm, 1992), from the late 1960's to the early 1990's, the value of "being well off financially" has shown the strongest gain (up from 40 to 74 percent), while the value of "developing a meaningful philosophy of life" has shown the most significant decline (down from 80 to 43 percent). This apparent shift, although the data are not taken from a truly representative sample, underscores the importance of continued

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efforts to gain a deeper understanding of value systems and factors that influence the adoption or rejection of individual values.

Clearly, our fast-paced modern society, with all the trappings of technological advancement, corporate conglomeration, information overload, and a focus on production and consumption of commodities, requires individual, social, and cultural changes and adaptations in order to keep up with the frenzied pace of communal evolution. The continued study of values, both individual and cultural, plays an important role in understanding how humankind evolves to cope with an ever changing world.

Purpose of Study

This study attempts to develop a more complete understanding of narrative transportation and second-order cultivation effects by looking at transportation into brief narratives. The second-order effect that is examined is that of cultural values, extending research on the role of television content in the construction of social reality (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002; O'Guinn & Shrum, 1997; Shrum, 1999, 2001; Shrum, Burroughs, & Rindfleisch, 2005; Shrum & Lee, 2012; Shrum & O'Guinn, 1993; Shrum, Wyer, & O'Guinn, 1998). This study will focus on the specific values of materialism and altruism, given that television commercials are especially likely to contain materialism messages and PSAs are especially likely to contain altruism messages.

A literature review chapter provides valuable background information relevant to the study by covering related theories and looking at important concepts. The Narrative Transportation Model will be examined with a discussion covering pertinent information. Additionally, Cultivation Theory will be discussed as will literature dealing with values,

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advertising, and public service announcements. The chapter covering research questions and hypotheses will provide a discussion of details important to this study. A procedures and methodology chapter will include descriptions of the various methods utilized in conducting the study including a discussion about the development of an experiment designed to examine the potential for narrative transportation and second-order cultivation effects to be experienced by viewers of TV ads and PSAs. This study looked at the potential for values messages (materialism and altruism) to be conveyed during the viewing experience. Specifics of the experiment are discussed and brought into focus including questionnaire development and employment in regard to experimental goals. The results section will reveal findings in relation to research questions and hypotheses. Finally, a discussion section offers further thoughts about the overall study including limitations and possibilities for future research directions.

CHAPTER II

LITERATURE REVIEW

This chapter will review various research articles to explicate theoretical concepts important to this study. Accordingly, both narrative transportation and Cultivation Theory will be the first two concepts explored. Following the review of these topics the discussion will move to values because this study incorporates an experimental manipulation of values messages; in particular, a discussion of values research investigating the concepts of altruism and materialism will used to better understand why these values are important to this study. Finally, research on advertising and public service announcements will be examined; more specifically, advertising research that is also exploring impacts on values will help elucidate an advertising connection to materialistic values while the public service announcement section will help solidify knowledge of the generally altruistic intent of these ads focused on encouraging pro-social actions.

Narrative Transportation Model Research

The Narrative Transportation Model is concerned with exposure to narrative information and how one may become immersed in that narrative world (transportation is not limited to the reading of a written narrative). Transportation research examines absorption, engagement, involvement, or "immersion" into a mediated world whether

that world is being produced by written words, exposure to television, film, virtual reality, computer, or video and on-line games. According to Green and Brock (2000), the Narrative Transportation Model looks at the potential of a narrative to transport an individual into the world of that narrative. The more an individual becomes absorbed into, involved with, or engaged by a narrative, the more likely the individual will experience a sense of being "transported" into the world created by that narrative. Green and Brock (2000) suggest that transportation into a narrative can have an effect on real-world beliefs because one must limit access to real-world cognitions in order to accept and immerse oneself in the world created by a narrative. Upon return to real-world cognitions the transported individual has been changed by the experience, a change that could affect attitudes and beliefs.

The possibility of changing attitudes and beliefs falls under the rubric of persuasion in psychological research yet sparse research delves into the persuasive impact of narratives. In fact, as Brock, Strange, and Green (2002) suggest, narratives are more manifest in everyday life than rhetorical communication and therefore more likely to impact people as they navigate day to day living. The point here is how a psychological based research focus on the persuasive impact of rhetoric (i.e., propaganda, advocacy messages, advertising, etc.) has failed to examine the potential importance of narratives and the role they may play in the construction of real-world attitudes and beliefs. Certainly, history has shown that public narratives can have enormous real-world impacts (Brock, Strange, & Green, 2002), indeed, a "power beyond reckoning," but without further investigation narrative impacts remain elusive—wielding some unknown potentiality ever-ready to leave its mark on the unsuspecting masses. We can better

understand the underlying mechanisms operating in narratives through increased research and examination of their potential role in the persuasiveness of public narratives. In fact, as Brock, Green, and Strange (2002) point out, in the concluding chapter of their edited volume on narrative impact, current research has already begun to bear out notable impacts: How structure and imagery interact to affect the persistence of narrative persuasion; how factual and fictional narratives are equally effective and often become "blurred and intertwined" in our memory (Brock, Green, & Strange, 2002, p. 353); and, what factors are important to examine when looking at narrative versus non-narrative persuasive communications. Limited research is beginning to reveal the power of narratives as one of the most compelling factors affecting the behavior and beliefs of every living person (Brock, Green, & Strange, 2002).

Carpenter and Green (2012) bring up the idea of narratives as "universal and pervasive" (p. 169); having existed long before media and technology, narratives, in the form of storytelling, have been informing and influencing the masses since the dawn of spoken and written communication. Narratives can become effective routes for persuasion when transportation is elicited. In particular, transportation can lead to a) increased affective responses creating an emotional connection between the narrative and the individual experiencing transportation; b) a reduction in negative cognitive responses by the person being transported to the extent where counter-arguing is eliminated partially due to the pleasurable experience of transportation; c) the increased perception of narrative reality may cause transported individuals to become ever more emotionally responsive due to the simulation of direct experience—even to the point of drawing out participatory responses during the transportation experience; and, finally, d) the mental

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imagery often attached to the transportation experience becomes a type of glue locking all the elements of transportation together in memory (Carpenter & Green, 2012). The effects of narrative transportation have been found in research across various domains indicating this is an active and ongoing phenomenon that will only increase as technologies allow entertainment, including narrative entertainment experiences, to be accessed at the touch of a finger (Bracken & Skalski, 2010). The power and reach of entertainment media, and their ability to transport individuals into narrative worlds, highlights the importance of increasing our understanding of narrative transportation and its effects.

The Narrative Transportation Model has been used to examine fictional narratives for their persuasive attitude change potential. In a series of experiments, Gerrig and Prentice (1991) looked at how fictional information is represented in our knowledge base for real-world judgments: Is newly acquired "fictional information" compartmentalized and represented in a knowledge structure separate from the existing knowledge base or incorporated into the existing knowledge base? They found that fictional information incorporated into the existing knowledge base can be used to inform real-world beliefs, and, once encoded, it becomes a competitive alternative to information already present in the knowledge base.

Further evidence that fictional narratives can impact real-world beliefs, and more in line with this study, Deighton, Romer, and McQueen (1989) looked at advertisement potential for persuasion by examining advertising forms and form impact on audience beliefs. The speculation was that advertisements using drama will be more persuasive than those using an argument, because when an advertisement is successful in

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manipulating the dramatic form it is more likely to transport the viewer into the commercial narrative. An argument makes objective claims open to audience testing while drama makes subjective appeals to audience feeling. Results suggest that the use of drama in television commercials will affect the processing of an advertisement (Deighton, Romer, & McQueen, 1989).

The Transportation-Imagery Model (TIM; Green & Brock, 2002) proposes five postulates (listed in full in an endnote)[2] that must be met when referring to narrative transportation and the transportation experience which may include some form of narrative persuasion. The five postulates are discussed and supported while Green and Brock build their argument for an imagery model of narrative persuasion which creates longer-lasting impressions than rhetorical persuasion techniques. An important detail here is the resiliency of images; they not only linger in memory with veracity, but also bring with them many details of the context from which the memory was created. Also of important note: Narratives appear to have evolutionary underpinnings influencing humans through a rich history of storytelling for social and cultural learning. Indeed, as Schank and Abelson (1995) argue, telling and understanding stories may play the most significant role possible in human memory—the construction and retrieval of all human knowledge.

Hoorn and Konijn (2003), in line with Schank and Abelson, suggest most "real-world knowledge" humans rely on comes from a conceptual framework fashioned by stories teeming with information concerning the outside world. Whether these stories are fictional or fact based is unimportant because people can often become emotionally involved with fictional characters. To better understand the impact of stories, and the

fictional characters often accompanying them, Hoorn and Konijn developed a model (the Perceiving and Experiencing Fictional Characters model—PEFiC) to provide a multifaceted foundation for studying fictional character identification and empathy. This model contains three phases of cognitive and/or emphatic interactions with fictional characters: The encoding phase, comparison phase, and response phase; through the combination of these processes, according to Hoorn and Konijn, the means for engaging with and appreciating fictional characters develops its cognitive and emotional reinforcement.

The idea here, for Hoorn and Konijn, is that our interaction with stories (narratives), and the characters embodying those stories, whether fictional or non-fictional, is a complex phenomenon requiring equally complex methods for examination and interpretation of potential impacts. Although this thesis focuses on emotional, psychological, and cognitive factors (narrative transportation and second-order cultivation effects) impacting the construction of personal and social reality complexities in the processing of experience indicate a wide variety of factors are at play possibly including how people may perceive and experience fictional characters. So, empathy and identification with fictional characters may reveal yet another dimension of narratives and the power they have to impact both cognitively and emotionally. From this perspective, we can see narratives, and the images they create, may play an important role in the construction of real-world beliefs and the Transportation-Imagery Model (TIM) is an important tool to help understand the impacts of this phenomenon.

A more recent study sought to expand the TIM by performing a meta-analysis of transportation research across a diverse range of fields from anthropology and marketing

to communication and literary studies. Van Laer, de Ruyter, Visconte, and Wetzels (2014) analyzed 76 research articles that conducted quantitative investigations of transportation so they could meld together a multidisciplinary framework from which various consumer research branches can now find common ground. The comprehensive model proposed by Van Laer et al. builds from storyteller and story-receiver antecedents to narrative transportation as measured by a transportation scale and finds its climactic outcome with narrative transportation consequences. After careful testing of the hypothesized attributes of this working concept study findings were in support of the proposed model. Van Laer et al. call the proposed model the "extended transportation-imagery model" (p. 801) and formulate seven research propositions[3] to help guide consumer research. Citing this as the first multidisciplinary study of narrative transportation Van Laer et al. see the extended transportation-imagery model (ETIM) as a means of integrating and uniting research from consumer culture theory and cognitive psychology. Further, according to Van Laer et al., the ETIM actually examines the complicated relationships between storyteller and story receiver while looking at narrative transportation and narrative persuasion along with a variety of other variables underlying these concepts allowing for a more detailed exploration of narrative transportation.

From a different perspective, Wang and Calder (2006) used three separate studies to look at how print advertising affects the transportation experience, and thereby impacts product attitudes. The first study manipulated ad placement by situating an advertisement in either the middle or at the end of a sample story participants were told they would read and evaluate that came from a "new magazine concept." As

hypothesized, interruption of the pleasant experience transportation elicits led highly transported individuals to respond with negative attitudes toward products advertised in the middle of a transporting story.

The second study manipulated product relevance to show highly transported individuals will have negative attitudes toward relevant products interrupting the transportation experience. To manipulate relevance Wang and Calder told participants they were involved with two unrelated studies—the first was the task of shopping for an important social event for which they would have to purchase products, including the product to be advertised in the second study, while the second study involved evaluating a "new magazine concept" by reading a sample story (containing the advertisement). Results indicated highly transported individuals having the transportation experience interrupted by advertising relevant to their goals are likely to evaluate advertised products negatively. According to Wang and Calder (2006) this is caused by the increased cognitive processing stirred by viewing advertised products relevant to personal goals.

The third study sought to clarify the difference between involvement and transportation by manipulating the relevance of study participation to future impacts. Participants in the high involvement condition were told they were evaluating a "new magazine concept" that would begin circulation on campus with articles both relevant to, and written by, students; further, they were informed to be among a selected group of students for whom magazine articles would be especially relevant. Participants in the low involvement condition were told they were evaluating a "new magazine concept" that might be out in a few years in a few cities with general articles authored by ordinary people. This study also employed an advertisement placed in the middle of the story to

interrupt the transportation experience. Results indicated transportation and involvement are exclusive and independent concepts that may interact but can be experienced singly. Wang and Calder suggest, although involvement is sometimes linked with transportation, this study shows effects from both can be distinguished from each other. This series of studies, although focused on print ads and story content, shows the potential for transportation to impact instantaneous (online) cognitive processing during the transportation experience, and, in contexts where advertising is expected, such as during television programming, advertising "could be less intrusive because people are prepared for the ads" (Wang & Calder, 2006, p. 161). Wang and Calder have succinctly revealed how transportation is dependent on cognitive processing of narrative information—what might happen if an emotional element is also present? Research looking at enjoyment may hold a few clues.

Nabi, Stitt, Halford, and Finnerty (2006) included transportation measures in their two studies examining emotional and cognitive predictors of enjoyment of both reality-based and fictional television programs. In the first study Nabi et al. surveyed emotional and cognitive reactions a participant may experience in regard to the fictional and reality-based television programs they typically watch; while the second study looked at reactions to specific programs from each genre predetermined early in the survey. The underlying goal for Nabi et al. was to better understand the unique features of enjoyment while building a useful connection between enjoyment and uses and gratifications research. A key finding from these studies indicates voyeurism, although an important gratification separating reality-based and fictional television programming, is not a strong predictor of reality-based television enjoyment (Nabi et al., 2006). More pertinent to this

research, transportation was the second best predictor of enjoyment of fictional television programming (happiness was the best) which could suggest the pleasant transportation experience allows fictional information to resonate both cognitively and emotionally providing fertile ground for attitude change. Nabi et al. suggest transportation may limit self-reflective capacities which could prove an important factor in the potential of persuasive appeals when linked with the transportation experience because self-reflection may prevent someone from adopting attitudes, beliefs, or values inconsistent with an existing values structure.

Another study (Moyer-Guse & Nabi, 2010) looked at the potential of narrative transportation to influence attitudes and behaviors by overcoming resistance to change when exposed to values messages embedded in entertainment media. The objective, for Moyer-Guse and Nabi, was to gain a clearer understanding of underlying mechanisms contributing to the attitude and behavior change occurring with exposure to entertainment-education (E-E) television programming by combining the extended-elaboration likelihood model (E-ELM) with the entertainment overcoming resistance model (EORM). Moyer-Guse's (2008) EORM combines theoretical postulates from social cognitive theory (SCT) and E-ELM attempting to better understand the impact entertainment media can have on attitudes and beliefs. Moyer-Guse and Nabi discern most E-E effects are due to persuasive involvement with either characters and/or narratives because narrative vehicles provide a means for viewers to become highly involved with the story and its inhabitants, and, thereby, potentially influenced by this emotional connection. They further explain that involvement, due to transportation,

identification, and parasocial interaction, impacts narrative persuasion by blurring lines between personal versus shared or mediated experience.

To test this idea, Moyer-Guse and Nabi (2010) produced an experiment having participants view either a narrative or non-narrative E-E program concerning the difficulties of unplanned teen pregnancy; immediately following the viewing, participants completed a questionnaire and then completed an online follow-up questionnaire two weeks later. Results were consistent with model predictions including reduced psychological reactance (psychological reactance occurs when an individual feels their freedom is somehow being threatened whether it be freedom to choose, to act, or to think so they react in a negative manner to, or in opposition of, the threat) and increased parasocial interaction (parasocial interaction refers to the bond formed between a viewer and a character they like or identify with which seems almost like a face-to-face relationship) in the narrative transportation condition as well as a decrease in perceptions of a persuasive influence. Further, in the narrative condition the relationship between identification and vulnerability (to teen pregnancy) actually increased over time whereas in the non-narrative condition this relationship decreased and transportation, in the narrative condition, increased counter-arguing while it was decreased in the non-narrative condition. Moyer-Guse and Nabi believe these results suggest the transportation experience, with all the various elements that comprise the experience, can, in a subtle way, impact a viewer's resistance to persuasion and, thereby, provide a means for potential attitude and belief change.

To further understand the persuasive potential of narrative transportation and its possible impact Reinhart and Anker (2012) had participants view organ donation PSAs

before responding to a questionnaire. Six PSAs were used, four were recipient-based and two were donor-based, and donor status was measured before and after viewing. Participants completed a questionnaire posted on the Survey Monkey website; personal information was collected as well as donor status prior to viewing one of the six 30-second PSAs. After viewing the PSA participants filled out the remainder of the questionnaire containing measures of transportation, psychological reactance, message reactions, and a second measure of donor status. Results indicate recipient-based PSAs were more transporting than donor-based and, more important to this research, transportation had a positive relationship with message reactions indicating the pleasant experience of transportation may impact viewer's assessment of what they have viewed. Also, transportation was negatively related to psychological reactance which may allow viewers to watch mediated programming without feeling threatened to the point where they rebel psychologically through negative and/or angry reactions to the program leading to more positive evaluations of the program. Here, we see Reinhart and Anker (2012) have actually tested transportation into a brief narrative finding viewers did experience transportation when viewing a 30-second PSA. This thesis will be testing the extent to which viewers experience transportation from exposure to TV Ads as well as PSAs thereby extending the research of Reinhart and Anker and adding to the knowledge base concerning the potential for transportation into a brief narrative. Testing of transportation via television commercials has yet to be studied and this thesis will help shed light on an area lacking empirical investigation.

Bilandzic and Busselle (2008) were interested in the possibility that long term transportation experiences, when examined within specific genres, may reveal cultivation

effects on viewers routinely exposed to these specific entertainment genres. According to Bilandzic and Busselle, transportation is different from other involvement measures because it involves the "*intense* and *uncritical* (italics orig.) processing of a narrative" (p. 511) thus centering focus on the story—because "stories are the central communicative unit in long term cultivation effects" (Busselle, Ryabovolova, & Wilson, 2004, pp. 508-509). Bilandzic and Busselle believe the pleasurable transportation experience encourages viewers to seek out similar programming which, over time, increases knowledge of story topics in specific genres while simultaneously increasing viewers' understanding of story conventions present in various genres. The accumulation of knowledge concerning various genres may lead to genre loyalty and increased transportation. Further, transportation experiences within specific story genres may increase the likelihood viewers adopt beliefs consistent with the observed programming and, finally, the accumulation of transportation experiences could lead to the cultivation of a genre's worldview.

To link transportation and cultivation Bilandzic and Busselle use the relatively new concept of transportability: A personality trait that describes a person's likelihood to be readily transported into narratives (Dal Cin, Zanna, & Fong, 2004, as cited in Bilandzic & Busselle, 2008). Their study had two components: 1) the initial component featured a questionnaire measuring cultivation judgments, genre viewing, transportability, and demographics—this questionnaire served as an independent cultivation study; and 2) one week after filling out the questionnaire three films[4] from different genres (science fiction, crime-drama, and romantic comedy) were viewed by participants on three consecutive nights in a university auditorium and, immediately

following each viewing, a transportation questionnaire was completed along with questions about genre specific beliefs (repeated from the first questionnaire) respective of each film genre. Results indicate transportability is a good predictor of transportation especially in the science fiction and crime-drama categories but less so in the romantic comedy genre; this result holds true after controlling for genre-liking and exposure as well as gender, suggesting transportability is not constrained by genre preference, viewing habits, or personal liking. Although results did not indicate a transportability-cultivation effect respondents measuring high on the transportability scale did show significant relationships for cultivation within specific genre exposures indicating they had cultivated some genre specific beliefs through multiple exposures.

Bilandzic and Busselle conclude transportability, although promising for predicting transportation, may be limited due to range restrictions. Findings also revealed a correlation between transportation and increased attitude measures after exposure suggesting a likely reinforcing effect on worldviews occurring from repeated exposures possibly due to second-order cultivation effects. Bilandzic and Busselle see this possible second-order cultivation effect as a stronger, more permanent imprint taking place beyond the limitations of heuristics and first-order cultivation estimates. The authors conclude their study adds important insights for future research into the role of transportation in cultivation theory and that future narrative transportation/cultivation research will allow us to more fully understand how visual narratives inform and shape social reality.

Busselle, Ryabovolova, and Wilson (2004), deeming cultivation theory should be examined from the perspective of a viewer's interactions with narratives, chose to

examine how perceived realism may interfere with cultivation processes. The authors propose a viewer will naturally view media contents as fictional unless otherwise prompted because "evaluating realism interrupts the narrative and inhibits a program's ability to contribute in the cultivation process" (p. 366). Busselle et al. see television as a narrative vehicle and television viewing as a process of constructing stories; from this perspective television viewing becomes an on-line process (Hastie & Park, 1986; Van den Bulck, 2003, as cited in Busselle, Ryabovolova, & Wilson, 2004) with cognitive activities and attention involved with the viewing experience. Because narratives and stories are compelling entertainment so often in sharp contrast to reality, Busselle et al. see narrative transportation as a means for viewers to become highly involved with a story (fictional stories eliminate viewer concerns about realism as well as serving to obstruct the critical thinking required to evaluate realism) and the on-line process of story construction could lead to the imprinting of information obtained from television content into real world beliefs.

So, Busselle et al. (2004) ask: What role does perceived realism play in the transportation and cultivation processes? According to Busselle et al., research indicates a program's realism depends on a viewer's judgment of the plausibility and probability the people or events portrayed could exist or occur in the real world. It appears viewers are entrenched in an ongoing, on-line cognitive processing exercise constantly comparing what they are viewing "to real life experience or perceptions of the real world" (p. 369; Shapiro & Chock, 2003; Shapiro & Fox, 2002). Busselle, Ryabovalova, and Wilson tested on-line realism judgments by having participants view either an episode of *Law and Order* or *Boomtown*, both television crime dramas, and then complete a thought

listing sentence completion task allowing for up to ten sentences in a five minute time limit; after completing this task they answered a number of scales including transportation and perceived realism. Two trained coders categorized thoughts into narrative and non-narrative elements/thoughts evaluating the program, and then coded program narrative and non-narrative evaluations as either positive or negative (intercoder reliability > 96%). Results indicate viewers focus most of their program evaluations on narrative elements rather than non-narrative (65 to 20) and the majority of evaluative thoughts are either positive or neutral as opposed to negative (85 to 38); also, participants reporting negative evaluative thoughts scored significantly lower in both transportation and perceived realism.

This study shows how perceived realism may interfere with cultivation by interrupting the pleasant transportation experience causing viewers to critically evaluate a program in comparison to their real-world judgments. This study also reveals, along with the previous study, the importance of looking at the impacts of narrative transportation on the cultivation process—especially the impact for on-line, second-order cultivation effects. A more detailed look at cultivation theory and research follows. **Cultivation Theory and Research**

Cultivation theory, the proposal that television viewers construct social reality based on information gleaned from television viewing, is an important thread when unraveling the mystery of the impact of television content on viewers. Fundamental to cultivation theory is the idea that television delivers a consistent stream of messages and images to a mass audience, and this, as described by Gerbner, Gross, Morgan, Signorielli, and Shanahan (2002), "centralized system of storytelling" serves as a "common source of

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socialization and everyday information" (p. 44). Gerbner et al. claim that television

viewing leads to a cultivation of similar views of reality among what would otherwise be

unconnected groups. Further, Gerbner et al. describe television's autonomous

contribution to the social reality conceptions of the viewing audience; in particular, the

theory claims that "those who spend more time 'living' in the world of television are

more likely to see the 'real world' in terms of the images, values, portrayals, and

ideologies that emerge through the lens of television" (p. 47). This effect stems from

long-term exposure to the vast stream of images and messages found in television

programming. So, for cultivation theory, heavier viewing appears to have the obvious

implication of shared reality conceptions, yet research has often yielded mixed results

and weak effects (Harmon, 2001; Hughes, 1980; Potter, 1990, 1991) especially when

employing statistical methods with control variables.

Although Harmon (2001) did find support for a strong link between materialism

and television viewing in a secondary analysis of the General Social Survey (GSS), a

survey conducted in the United States from 1972-1996, he found no link in a secondary

analysis of the Simmons Market Research Bureau (SMRB) and Study of Media and

Markets (SMM) data set collected from June 1993-March 1994. The mixed results

uncovered by Harmon are in line with much of cultivation research and, as he concludes,

his results "should not be used to claim that TV viewing does not play a role in the

transmission of materialistic values" (p. 416), rather cultivation theory may need a more

precise and better defined formula to measure such impacts.

Yet another example of weak effects comes from a study by Hughes (1980), who

was able to show, looking at data from the GSS for calendar years 1975 and 1977, the

same data set used by Gerbner et al. (1978) revealing a cultivation of feelings of

alienation and fear of walking outside at night based on television viewing, how this

cultivation effect could virtually be eliminated by using control variables found in the

data (i.e., income, race, education, age, sex, etc.). Gerbner, Gross, Morgan, and

Signorielli (1980) addressed this issue by further clarifying cultivation theory with the

claim that "mainstreaming," a process where increased viewing will lead to a

"convergence of outlooks" even among groups with otherwise divergent views and

backgrounds, can account for fluctuations in cultivation research results. Also, for some

viewers television content more closely resembles their reality, whether actual or

perceived, and has more "resonance" for them; cultivation relationships may increase for

viewers of television messages that resonate strongly with them. By further defining

cultivation theory and the violence index (which is based on scientific analysis of yearly

television samples) as well as dealing with effect sizes (suggesting the impact of even

modest effects have the potential, over time, to affect cultural climate as well as social

and political decision making) Gerbner et al. (1980, 2002) contend the continued refining

and testing of cultivation theory reveal the powerful role television plays as the "common

socializer" of modern man. Of course, technological advances have taken a bite out of

Gerbner et al.'s "common socializer" theme with current television offering a vast array

of networks through digital, cable, and satellite options as well as internet, tablet, and cell

phone access to entertainment services providing the viewing audience plenty of

opportunity to engage in a more selective exposure to televised content (Jeffres, Atkin,

Neuendorf, & Lin, 2004; Neuendorf, Jeffres, & Atkin, 2000). Certainly, effects from

viewing the repetitive themes and ideas often represented in television content is still

likely, but mainstreaming, in the strictest sense of Gerbner et al.'s original concept, is less likely now due to changes and advances impacting viewing options.

Potter (1990) found some support for a cultivation of the primary values ("truth wins out in the end," "honesty is the best policy," "hard work yields reward," and "good wins out over evil") extolled in television programming among middle and high school students but concedes "the relationships are typically weak and sensitive to demographic controls" (p. 851). Further, Potter (1991) employed a psychological perspective to examine cultivation subprocesses (learning, construction, and first-order estimates {demographic} vs. second-order beliefs {value system} measures) that may impact cultivation. Here, Potter's second-order beliefs are in line with second-order cultivation effects—subconscious and conscious cognitive processing effects that happen in real-time during a television viewing experience that allow for either an updating of current social-reality beliefs or the formation of new beliefs (Shrum & Lee, 2012)—which may have impacts on personal values. The proposed model suggests cultivation, learning, construction, and generalization have a relationship with television exposure as well as first-order and/or second-order measures. Using a middle and high school student sample Potter, again, found mixed results with some support for a first-order construction cultivation effect while second-order effects were insignificant. Potter recommends future research accept consistent small effect sizes as valid and focus on understanding and explaining why and how effects are happening.

Potter (1993) also suggests cultivation theory would benefit from finding meta-narratives existent across varying genres rather than focusing on message elements like violence and crime. Here, the idea of narrative, in this case a meta-narrative, could help

reveal the far reaching power and influence of television, but, as Potter indicates, it "is a very interesting conceptual challenge to articulate the essence of that metanarrative" (Potter, 1993, p. 597). Potter also underscores the possibility of individual differences in message understanding and response, advising "it must be understood that viewers constantly interact with the messages in a kind of dialogue" (Potter, 1993, p. 592). Obviously Potter knew there were some small cultivation effects that could be observed but he believed it was necessary to move beyond weak effect sizes and re-conceptualize the theory making changes and additions that can give the theory more explanatory power.

Even with the possibility of mixed results and weak effect sizes, cultivation theory has been enthusiastically pursued by researchers. Shrum and O'Guinn (1993) found support for their claim, and the cultivation effect, that "relevant information, presumably 'cultivated' from television viewing, is more accessible in memory for heavier viewers" (p. 436); their results show that heavy viewers also overestimate the frequency or probability of events typifying this relevant information (for instance, risk of being involved in a violent crime, or percentage of Americans with alcohol dependency, etc.). Other researchers have found similar results. Anastasio, Rose, and Chapman (1999) found that "[n]ot only does the media bias people's perceptions by offering an unrepresentative view of the world at times, but it may also facilitate biased processing of accurate information by presenting that information with an emphasis on inter-group differences" (p. 155); so, by showing a small, unrepresentative aspect of the world, the media are able to create the world they seek to reflect, or, in other words, they can reliably construct social reality within public consciousness. Greenberg (1988)

proposes that a "drench effect" could occur where select, critical images (ideas, portrayals, or presentations that supersede information previously encoded through experience or exposure) could have substantially more impact than frequently viewed characterizations, behaviors, and ideas. Whereas frequently viewed television models may emerge in viewer consciousness and social reality awareness through a sort of "drip, drip, drip," exposure effect, the drench hypothesis suggests these "critical images" may quickly and deeply impact impressions, beliefs, and perceptions about social reality. Television commercials would typically be seen as a type of "drip" exposure, but, from Greenberg's perspective, innovative, novel, original or highly-popular television commercials may be capable of asserting a "drench" effect similar to regular television content.

A recent example of the drench effect comes from a study by O' Keeffe (2013) who looked at the under-representation of women and minorities in STEM (science, technology, engineering, and math) careers to find out if popular media character portrayals may or may not play a role in the selection of potential career paths. O'Keeffe argues media entertainment stereotypes may be responsible, through cultivation theory's mainstreaming effect, for the on-going demographic disparity (under-representation of women and minorities) in STEM professions. O'Keeffe suggests "the images and ideas regularly disseminated through mass media products will become the mainstream view through sheer repetition" (O'Keeffe, 2013, p. 6). O'Keeffe used an audience based qualitative study of 23 STEM professionals and students focusing on women with the inclusion of males from underrepresented minorities (18 females and 5 males); through the use of various interviews (in person, via telephone, and e-mail) O'Keeffe sought to

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learn about respondents' media use through four life stages (childhood, adolescent, college years, and present) in order to determine if media portrayals impacted respondents' decisions to pursue STEM careers. O'Keeffe suggests one of the problems with media stereotypes is the lack of representation of various gender and racial portrayals of STEM professionals depriving minorities and females of adequate and similar entertainment media role models in STEM fields if those role models are not available in their personal lives.

According to O'Keeffe, *Star Trek's* Lieutenant Uhura is a good example of a minority female role model who had a drench effect on minority women worldwide. Nichelle Nichols, the actress portraying Uhura on the original *Star Trek* television series, received voluminous fan mail at the studio—so much mail that the studio executives attempted to hide the mail and thus conceal the popularity and cultural impact the Uhura character was creating. After *Star Trek* was cancelled Nichelle Nichols became a supporter of space exploration and later was actually hired by NASA as an outreach spokeswoman in an attempt to increase the diversity of potential astronauts. This move by NASA was a direct result of the continuing resonance of Nichols Uhura character with women and minorities, and, because of the enduring drench effect of Lieutenant Uhura, the program was a resounding success increasing not only the total number of applications but dramatically increasing the number of applications from women and minorities. In this study, O'Keeffe found that both minority and white females in STEM careers indicate the Uhura character was a positive influence not because of specific scenes or episodes but simply because she represented a science officer playing an important role among a group of diversified characters. This one representation

demonstrates the powerful "drench" impact media portrayals can have on a mass audience.

Evidently, television's cultivation effect produces both a construction of social reality based on the television message, and reinforcement or strengthening of attitudes consistent with the televised message. Shrum (1999), in a study of attitude extremity and strength, found that heavy viewers of soap operas (> four hours per week) not only indicated significantly more distrust, they also showed a greater belief that they would experience marital problems than light viewers; and, beyond the effects found for attitude extremity, Shrum also found that heavy viewers exhibited stronger attitudes than light viewers. Shrum concludes that the results suggest "television may serve to bolster and reinforce attitudes consistent with the television message" (p. 3). Based on Shrum's results, one can speculate that television programming containing messages commensurate with values like materialism may also serve to "bolster and reinforce" those values in the television viewer.

Bilandzic and Rossler (2004) reviewed genre-specific cultivation research to build a framework for their expansion on the currently popular theoretical perspective of cultivation as a multi-step process. This multi-step process includes: 1) the encoding and storing of information from television programming; 2) inferences each individual viewer may have or adopt about the real-world; and 3) the construction, integration, and retrieval of cultivation judgments. For this study Bilandzic and Rossler focused on three television genres: Crime, soap opera, and talk show. After selecting studies based on specific criteria (non-experimental, individual data, overall TV and genre-specific viewing) nine crime, five soap opera, and four talk show studies were reviewed for

results consistent with four basic cultivation assumptions. After review Bilandzic and Rossler found most of the studies do not show results in line with basic cultivation assumptions leading to a number of questions: 1) what message is influencing the viewer; 2) how do television and real world facts intertwine cognitively; and, 3) how can causality and reverse causality be integrated?

To answer question one Bilandzic and Rossler revisit Potter's (1993) idea of metanarratives—the ideas or ideologies underlying the basic plots or sub-plots of a program with various metanarratives found in all television programming—suggesting these metanarratives may be the main cultivating message impacting viewers. The idea of information from television intertwining with real world knowledge has to account for inferences from various sources including personal experiences and communications as well as other media sources, but two possibilities provide the means for fictional information being accessed as real world knowledge: "[T]he fictional source is *forgotten* and the information is used anyway [...] [or] the fictional source *does not matter* because what is learned applies both to television and the real world (italics orig.)" (Bilandzic & Rossler, 2004, p. 311).

In order for cultivation theory to explain reverse causality (where beliefs are motives for viewing rather than the results of viewing) Bilandzic and Rossler recommend integration of a uses and gratifications component; specifically, they suggest the classic gratifications sought (GS) and gratifications obtained (GO) model to better account for learning (cultivating) from television. This integrated approach has a viewer seeking a metaunit (television program containing a specific metanarrative appealing to the viewer) of entertainment as the gratification sought (these metaunits differ from genres because a

metaunit is a vehicle for the various metanarratives present across all genres). Exposure to the metanarrative results in a gratification obtained (these gratifications can occur and change both during and after exposure) which becomes the gratificational circumstance where information from television is learned and processed.

At this point, Bilandzic and Rossler clarify how the context of gratifications obtained play a significant role in how television information may be related to real world judgments including the important difference between information sought and incidental information learned and how these bits of information are encoded and stored. Also of importance here is the source context of this information and how it relates to similar information from other sources in closeness or remoteness. Finally, the model describes the process of retrieval and construction of information learned from television; specifying, here, that unlike the long-term processes of exposure-encoding-storage, retrieval and construction is a short term process only occurring at specific points in time, for instance, when real world judgments are solicited. Bilandzic and Rossler see the gratification/cultivation model creating a number of different avenues of future research to help clarify cultivation processes; they also suggest the model upholds the general cultivation theory assumptions while adding important modifications helpful in explaining cultivation effects.

Yang, Ramasubramanian, and Oliver (2008) looked at the effect consumption of American television had on feelings of deprivation among viewers in both South Korea and India. Currently, according to Yang et al., the United States stands as the largest exporter of media content in the world and is continually seeking new markets; in view of this, Yang et al. wanted to look at the impact of U.S. television programming on life

satisfaction among Asian viewers. Yang et al. argue previous research suggests television viewing can amplify estimations of affluence among other people and, when applied to other countries, social perceptions of affluence in the United States may lead to feelings of deprivation among those comparing the quality of their lives to the quality of American life depicted in television programs imported from the U.S. A convenience sample (soliciting potential participants in public spaces) was obtained in both South Korea and India with a questionnaire measuring materialism, estimation of American affluence, dissatisfaction with personal life, dissatisfaction with society, experience with the U.S., viewing U.S. television, domestic television viewing, and demographics. Results for the overall model were complex and somewhat contrary to study reasoning so researchers broke down the results into two two-group analyses in an attempt to better understand and interpret the findings. For India it appears heavy exposure to U.S. television leads to dissatisfaction with life and Indian society while in South Korea heavy exposure leads to higher estimates of American affluence which then leads to dissatisfaction with Korean society. Yang et al. conclude first-order cultivation effects are likely responsible for the link between feelings of relative deprivation among heavy viewers of U.S. television.

Yang and Oliver (2010) examined how television viewing impacts viewers' quality of life perceptions. Using a methodology combining material values and social comparison Yang and Oliver examined how heavy television viewing affected viewers' material values and estimates of other people's affluence. According to Yang and Oliver, the social reality portrayed on television is more affluent than what is found in the real-world; repeated exposure to this distorted affluent social reality may "culminate in

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adverse effects on viewers' perceptions of life quality" (Yang & Oliver, 2010, p. 119). A convenience sample collected in public places of 225 participants completed questionnaires measuring material values, estimates of others' affluence, television viewing, perceived social comparison gaps, dissatisfaction with personal life, and dissatisfaction with current social equality. Results indicate heavy television viewing is associated with higher estimates of others' affluence as well as material values and increased perceptions of social comparison gaps; also, material values was associated with a dissatisfaction with personal life but not dissatisfaction with current social equality. Results also show first-order cultivation effects (estimations of others' affluence) were more apparent in those with higher socio-economic status, whereas second-order cultivation effects (material values) were more apparent among those with lower socio-economic status. Yang and Oliver speculate that these results may indicate life satisfaction of heavy television viewers could be significantly impacted by increased exposure to television advertising: "[T]he detrimental effects of television on individuals' life satisfaction might be understood in part as effects that repeated exposure to advertising may bring about" (p. 134).

In a recent study looking at materialism, Opree, Buijzen, van Reijmersdal, and Valkenburg (2014) wanted to investigate materialism among youth in middle childhood at the vulnerable age when marketers are attempting to inculcate consumption behaviors. Using advertised product desire as a mediating variable impacting materialism, Opree et al. speculate that repetitive exposure to product advertising could encourage children to believe that happiness may stem from the advertised goods and services to which they are exposed. A longitudinal study was conducted collecting survey data from 1001 children

(8 to 11 years of age) in October of 2006 with the follow-up survey completed one year later by 603 of the participants (final *n*=466). Results confirmed all of the study hypotheses thus indicating that children frequently exposed to TV ads become more materialistic than those exposed less frequently, and advertised product desire mediates materialism to the point where children more frequently exposed to advertised products have more desire for those products which leads to increased levels of materialism. One conclusion Opree et al. present concerns how their results may be representative of other age groups including adults. The suggestion here is that recent research, including that of Shrum, Burroughs, and Rindfleisch (2005) as well as Shrum et al. (2011), reveal cognitive processing patterns (on-line, second-order processing effects) that may be similar between children and adults which means persuasive messages may be subject to "low-effort processing mechanisms" (p. 730). Because of this processing similarity Opree et al. suggest "[c]ultivation of materialism through advertising is thus likely to be a phenomenon present in all age groups" (p. 730).

In a similar vein, Nabi and Sullivan (2001) combined social psychological perspectives with cultivation theory to examine cultivation's effect on beliefs and behavior. To explore the impact of televised violence and it's potential to influence viewer behavior Nabi and Sullivan used the Theory of Reasoned Action (TRA) to investigate viewer intentions to take self-protective measures and actual self-protective behaviors taken. From a TRA perspective, behavioral intentions are the best predictors of actual behavior where behavior is influenced by individual attitudes and the subjective norms impacting those attitudes. The TRA offers a good, though imperfect, conceptual

match with cultivation theory and extends the possibility of exploring potential impacts of television viewing on beliefs and behavior.

More recently, Shrum and Lee (2012) proposed a model for first-order and second-order cultivation effects to better understand how television viewing could impact value judgments. According to the model, first order cultivation effects are memory based, depend upon accessibility, both ability and motivation to process influence and dilute the cultivation effect, and television models or patterns are not independently identified and therefore increase the cultivation effect. While first-order judgments do occur, second-order judgments are constant because they occur during on-line processing of new information while it is being encoded or experienced (Hastie & Park, 1986; Winter & Uleman, 1984). On-line processing is occurring all the time. Whether viewing or seeing, listening or hearing, touching or feeling, our senses are constantly processing and encoding new information we experience. This processing also occurs at some level during television viewing, and using a persuasion model, Shrum and Lee (2012) suggest consistent messages and ideas portrayed on television may lead to adoption of beliefs, attitudes, and values extant in television narratives through second-order cultivation effects. From this perspective, the combination of narrative transportation and second-order cultivation effects may very well have a persuasive influence on the adoption of values messages such as those explored in the following sections.

Clearly, based on a review of the literature, narrative transportation could provide the means for televised narratives to imprint cognitively which may lead to cultivation effects. Cultivation effects, especially those occurring during second-order on-line cognitive processing such as what may be experienced during a narrative transportation

occurrence, could affect the social reality judgments that inform attitudes, beliefs and values. Further, because values play an important role in the construction of both personal and social reality (also, values will be examined in this study) the concept warrants a discussion on several fronts as addressed in the following sections.

Values

Rokeach (1973) launched his explication of values and experimental human values research advising, "the study of a person's values is likely to be much more useful for social analysis than a study of the values that objects are said to have" (p. 5), in response to the on-going (at that time) debate over whether it would be more fruitful to study *values people are said to have* or *values objects are said to have*. Rokeach argued the study of values should be of central importance among all social sciences thus signifying the values concept as the "intervening variable that shows promise of being able to unify the apparently diverse interests of all the social sciences concerned with human behavior" (p. 3). With his *The Nature Of Human Values*, Rokeach (1973) ushered in the academic study of human values, until then virtually non-existent in collegiate settings, writing the book not only for his colleagues in various social science fields but also to serve as a text-book for courses on human values.

Rokeach's *The Nature Of Human Values* grew from ideas he was developing in his previous book *Beliefs, Attitudes, and Values* (1968) where he suggests social psychology shift its main focus of study from attitudes to values; here, Rokeach fully elaborates his conceptual definition for human values as well as explaining the conceptual distinction between values and attitudes touching upon his ultimate goal:

> It was, therefore, our hope that in shifting from a concern with attitudes to a concern with values we would be dealing with a concept that is more

central, more dynamic, more economical, a concept that would invite a more enthusiastic interdisciplinary collaboration, and that would broaden the range of the social psychologist's traditional concern to include problems of education and reeducation as well as problems of persuasion. (Rokeach, 1968, p. 159)

Clearly, Rokeach (1968, 1973; see also Lee, Whitehead, & Balchin, 2000) was the true pioneer in clarifying the concept "values" and, in distinguishing values from attitudes, but Rokeach makes clear that his definition of values is an augmentation of Kluckhohn's (1962) definition, with a value being "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (p. 5). Kluckhohn (1962) was attempting to clarify values and value orientations while helping in development of a general theory of action; he saw values as an extension of morals suggesting "morals are socially agreed upon values relating to conduct. To this degree morals—and all group values—are products of social interaction as embodied in culture" (p. 388). Due to competing scientific definitions for values (at that time, philosophy alone had numerous) Kluckhohn analyzed definitions from diverse fields while refining his working definition. Believing values spring from concepts of, and postulates about, nature, Kluckhohn saw values as a code or standard enduring through time and organizing a system of action thereby "value…places things, acts, ways of behaving, goals of action on the approval-disapproval continuum" (p. 395).

Kluckhohn, like Rokeach years later, was concerned with elucidating the differences between attitudes and values recommending the importance of exploring the influence of values on attitudes. Kluckhohn's (1962) definition of value, "[a] value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of

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the desirable which influences the selection from available modes, means, and ends of action" (p. 395), provided a solid foundation upon which Rokeach could build. Rokeach then further clarified that a value system is an organization of beliefs expressed through preferred methods of conduct, with enduring and varying degrees of importance (Lee et al., 2000). Lee et al. specify Rokeach's requirements that differentiate values from attitudes: 1) values transcend situations and objects, 2) values provide a standard, 3) a small number of values impress upon goals and behavioral standards, 4) values are central cognitions, and 5) values are closely linked to motivational tendencies. Therefore, values, as opposed to attitudes, are single, specific beliefs, whereas attitudes are the accumulation of several beliefs around an object or situation (Lee, Whitehead, & Balchin, 2000; Rokeach, 1968, 1973). According to Madrigal and Kahle (1994), these values are central and stable, and, therefore, predict behavior over extended periods of time; they also serve to determine attitudes and behavior.

Perhaps the most thorough and contemporary examination and explication of values is the on-going values research conducted by Shalom H. Schwartz. A leader and stalwart in values research, Schwartz (1992, 1994, 2006; see also Bilsky & Schwartz, 1994; Sagiv & Schwartz, 2000; Schwartz & Boehnke, 2004; Schwartz, Sagiv, & Boehnke, 2000; Schwartz, Struch, & Bilsky, 1990) has been clarifying and elucidating the pioneering work in values research of Kluckhohn (1962) and Rokeach (1968, 1973) for twenty plus years. Schwartz and colleagues have attempted to identify a comprehensive set of basic values that are recognized in all societies. According to Schwartz (1992, 1994, 2006; Schwartz et al., 2012), there are 10 values that are universal across cultures: 1) power (social status and control over people and resources), 2)

achievement (personal success achieved through showing competence in adhering to social standards), 3) hedonism (pleasure and gratification), 4) stimulation (excitement and challenge), 5) self-direction (independent thinking), 6) universalism (understanding and tolerance for welfare of all people), 7) benevolence (preservation and enhancement of welfare of people one frequently contacts), 8) tradition (respect and acceptance of traditional customs and religion), 9) conformity (restraint from actions that violate social norms), and 10) security (harmony and stability of society). These values are found to vary both across cultures and also between individuals within cultures. Further, Schwartz (1992) asserts compiled data collected from multiple cultures indicates people "implicitly distinguish 10 types of values when assessing the importance of specific values as guiding principles in their lives" (p. 37).

Schwartz and Boehnke (2004) expanded knowledge of the 10 universal values with a confirmatory factor analysis which allowed better placement of each value on a circular pattern displaying interrelationships between the values as one navigates the circle. Outside the circle four two-dimensional higher-order values help organize lower-order values within the circle along a motivational continuum confirmed by factor analysis (see Figure 1). Schwartz and Boehnke see this expanded value structure pattern as more functional and explanatory for research use with conflicting values opposed to each other so that the "antagonistic and congruent relations among the 10 values gives rise to the modified quasi-circumplex value structure" (p. 253) graphically displaying values relationships. According to Swartz and Boehnke (2004), the expression of any value will impact other values that are either antagonistic or congruent with the pursuit of a given value. This new structure better exemplifies relationships between and among

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Figure 1. Schwartz and Boehnke's Modified Quasi-Circumplex Value Structure.
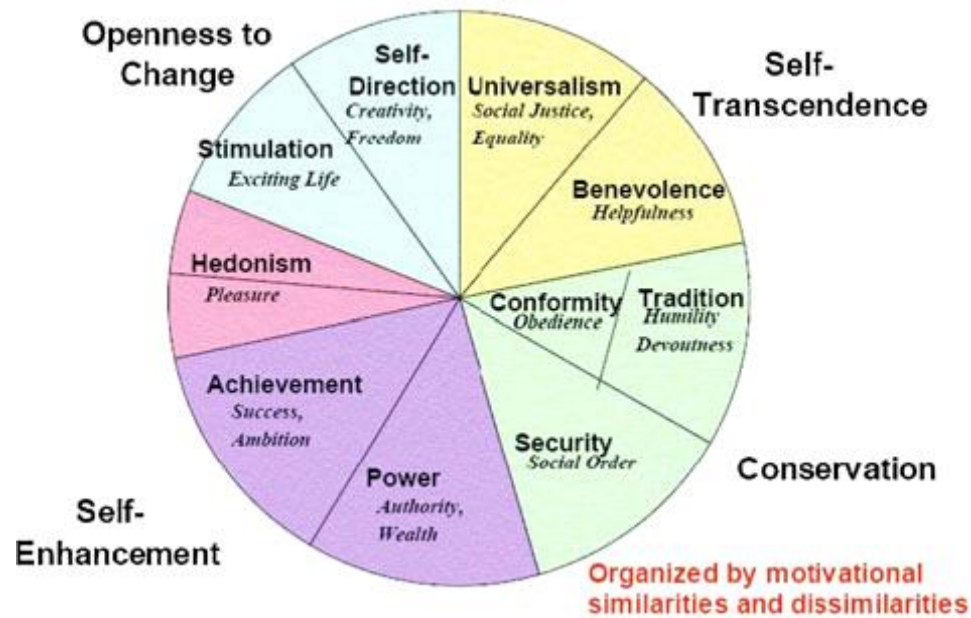
Adapted from Doran, C. J., & Littrel, R. F. (2013). Measuring mainstream US cultural values. *Journal of Business Ethics, 117*, 261-280.

the values and allows researchers to focus on specific areas by dissecting the structure to better focus research needs.

From yet another perspective of Schwartz's work, Bilsky and Schwartz (1994) wanted to integrate social psychology and sociological values research into the study of personality in psychology research in order to merge concepts so personality studies could benefit from wide-ranging values research. Using a Similarity Structure Analysis (SSA), which uses data points to represent variables in multidimensional space, Bilsky and Schwartz tested the Freiburg Personality Inventory (FPI) and the Rokeach Value Survey (RVS) with a sample of 331 German students to determine similarities between value priorities and personality variables. Study results show personality variables are

associated with value priorities proving the constructs can be integrated. Bilsky and Schwartz suggest a conceptual agreement between values and personality whereby values could "be conceived as a type of personality disposition" (p. 178).

In another study, to further understand inter-group and national values, Schwartz, Struch, and Bilsky (1990) looked at inter-group values and social motives pairing German and Israeli students with a focus on in-group and out-group value hierarchies; the interesting pairing plays on historical contexts in relations between the two Nations. One interest of the study was looking at the antagonistic or altruistic motives toward the out-group in how Israeli and German students view one another. Findings indicate antagonistic views from both groups in acceptance of out-group stereotypes including the German focus on restrictive conformity and Israeli emphasis on achievement. Schwartz et al. suggest these "findings support the notion that accepting widespread value stereotypes of a group—regardless of the specific content of the stereotype—is associated with antagonism toward that group" (p. 196). Further, both the Israeli and German students expected German students to show a generosity-bias toward Israeli students (normally in-group bias prevails); with in-group favoritism results adding extra support to the Schwartz et al. claim that guilt can play a role in expression of altruistic "social motives in order to compensate for past wrongs" or it can suppress perceptions of values similarity distancing people "from their group's past victims" (p. 196).

Other studies by Schwartz and colleagues have expanded on values theory including: Schwartz, Sagiv, and Boehnke (2000), who looked at macro and micro worries (society and world; self and its extensions) to discover impacts on values; Sagiv and Schwartz (2000), who examined the relationship between value priorities and

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subjective well-being to better understand how incongruities between personal values and the value environment in which one is immersed may impact feelings of well-being; and, Prince-Gibson and Schwartz (1998), who studied the role gender plays in value priorities based on gender differences and socio-demographic factors (age, education, and ethnicity) and how value priorities interact with gender experience. From this limited overview (numerous publications remain unobserved) of his work clearly Schwartz has worked tirelessly extending upon the values research of Rokeach and others to provide a wealth of data and information for social science researchers.

Bringing the circumplex value structure developed by Schwartz and Boehnke (2004) into line with the values being studied here requires a brief look at a relevant study. Karabati and Cemalcilar (2010) were interested in value precursors for materialism in Turkish adults. Using the Material Values Scale (MVS, Richens & Dawson, 1992) to measure materialism and the Schwartz Value Survey (SVS) to place materialism on the circumplex value structure, Karabati and Cemalcilar investigated the impact materialism may have on subjective well-being. Results indicate materialism is in line with the value circumplex self-enhancement quadrant (power and achievement), but included hedonism (openness to change quadrant), with all three values showing a significantly high positive association with materialism; the results also indicated the self-transcendence quadrant (universalism and benevolence), including tradition (conservatism quadrant), were at the opposite pole in association with materialism. Further, values having a positive effect on subjective well-being included tradition, conformity, and security (conservatism) as well as benevolence from the self-transcendence quadrant while values having a negative effect on subjective well-being

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included power and achievement (self-enhancement) as well as hedonism and stimulation from the openness to change quadrant (see Figure 1 for quadrants and value placement on the circumplex structure).

These results show a relationship relevant to this thesis, and, as Karabati and Cemalcilar suggest, the "altruism and kindness implied in benevolence is in full contrast with the non-generosity element in a materialistic element" (p. 631). In addition to allocating materialism to relevant value positions on the circumplex value structure, study "findings verify the proposed negative effect from materialism on well-being" (Karabati & Cemalcilar, p. 631). This study helps to better understand how values intertwine and interconnect with each other as well as find opposition with one another. The conclusions from this study indicate altruism and materialism have places at opposite poles in the circumplex value structure which provides good background as altruism and materialism are explicated in the next two sections.

Altruism as a Value

Altruism could be defined as a selfless interest in the well-being or welfare of others. According to Merriam-Webster ("Altruism," 2000), Auguste Comte, a 19th-century philosopher and father of sociology, created the term to serve as a polar opposite to egoism. For purposes of this study, the definition by Hogan (1976) from a Wispe and Thompson (1976) article is a good descriptive fit: "[A]ltruistic behavior is behavior that promotes the welfare of others without conscious regard for one's own interests" (p. 365). Much of the current altruism research focuses on the sympathy-empathy altruistic personality debate as well as pro-social environments and vocations like teaching, healthcare related fields, environmental movements, and organ donation.

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Eisenberg et al. (1989) designed an experiment to study the role of sympathy in helping behaviors as it relates to the altruistic personality. Much debate surrounds the question of whether a truly altruistic personality exists because in experiments testing helping behaviors altruistic actions can often be attributed to situational sympathy as is proven when an "easy escape" from helping behaviors was present. This is partially due to feelings of guilt or shame experienced if the choice not to help is known by others, or if not helping is aversive to self-image. To clarify the role of dispositional and situational sympathy in relation to helping behaviors and altruism, an experiment was designed to provide an easy escape for participants by concealing the choice to help or not help. The experiment was a success and, as Eisenberg et al. report, "our findings support the view that there is indeed an altruistic personality" (p. 65) cautioning, however, intention to assist a needy other can be mediated by sympathetic reactions to the person needing help in a given situation. Although results appear to support the notion of an altruistic personality, Eisenberg et al. discuss many mediating factors playing a role in their findings.

If indeed there is an altruistic personality then the altruism variable, from the perspective of an altruistic personality, could very well be considered a trait variable, but with the on-going debate about the existence of a truly altruistic personality it remains possible (perhaps likely) that altruism is a state variable which emerges and is expressed spontaneously when circumstances may require selfless action. This thesis will consider altruism a state variable capable of being affected by exposure to messages as well as mediating or moderating variables.

Bierhoff, Klein and Kramp (1991) were trying to discover whether altruistic

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personality traits were extant among those giving first-aid to victims of traffic accidents. Actual traffic accident first-aiders were matched with a control group of those who had witnessed an accident and had not helped. Bierhoff et al. used seven different personality scales in accordance with altruistic personality measures plus additional questions about giving or receiving first-aid, being in traffic accidents, witnessing traffic accidents, etc. to control for potential confounding factors. Findings in this study supported the existence of an altruistic personality (although the debate over whether there exists a truly altruistic personality continues) which Bierhoff et al. suggest has "a strong sense of internal control, a high belief in a just world, a pronounced sense of duty, and an empathy-oriented self-concept" (p. 273).

A number of studies have looked at altruism and values in various healthcare fields including a two-decade replication study by Johnson, Haigh and Yates-Bolton (2007) examining nursing students. Johnson et al. wanted to compare and contrast changes in the self-reported values of nursing students over a 22-year period (1983-2005) noting changes in student demographics. Idealistic expectations often accompany introductory nursing students along with high levels of altruism but both of these patterns decline with socialization to the profession over the length of the nursing program. Johnson et al. speculated altruism would show a steep decline over the two-decade span but they were also interested in honesty, a value not typically studied in nursing literature, and how it would be impacted by the passing of time. Results of this study confirmed the decline in altruism compared with nursing students from 1983, but surprisingly they found that "valuing honesty actually increased slightly over the course of their programme" (p. 371) and 2005 nursing students significantly scored higher than their

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1983 counterparts in admiration for the value of honesty (Johnson, Haigh, & Yates-Bolton, 2007).

Another investigation into values in healthcare is a study by Burks and Kobus (2012) who were interested in long term effects of maintaining altruistic and empathetic ideals through the course of study and work for medical students. According to Burks and Kobus strenuous demands from heavy workloads and non-humanistic practices in medical culture cause a decrease in measures of altruism and empathy indicating an incompatibility between the current culture of medicine and the concept of altruism as an overarching theme. A better values hierarchy, according to Burks and Kobus, would be "focusing on the development of empathy and prosocial behaviors" (p. 322) to achieve altruistic-like other-directed behaviors. Further, Burks and Kobus suggest integration of a humanistic curriculum in medical education which would require great shifts in the culture of medicine. As can be seen from the medical literature altruism is a challenging concept that, although inherently good, overemphasis on its expression may be detrimental.

Turning to the measurement of altruism, two scales were in consideration for this study including an altruism scale developed by Kopfman and Smith (1996) to test and validate Kopfman's (1994) Organ Donor Willingness Model (ODWM). The scale combines seven value dimensions associated with altruism as well as relationship with parents and individual interest in adventure and taking action. Through exploratory factor analysis a 26-item scale was reduced to 21 items with five altruism factors: 1) relationship with parents, 2) broadminded and forgiving, 3) cheerful and warm, 4) helpful and giving, and 5) courageous and truthful. Morgan and Miller (2002) took this scale and

further adapted it for a mail survey assessing how the relationship between knowledge, attitudes, values, and behaviors may impact organ donation. Selecting and merging three of the five factors based on their high reliability and ability to discriminate willingness to donate, Morgan and Miller created an 11-item scale to measure altruism. The 11-item scale supported both hypotheses concerning organ donors and organ donor intent. This is a good scale and would have been suitable for use in this study but a couple of items were concerning and the scale focus on organ donation was more specific than necessary.

The other scale considered for use in this study was developed as a result of the on-going (at the time) debate about the existence of an altruistic personality. Rushton, Chrisjohn and Fekken (1981) developed and validated the Self-Report Altruism Scale (SRAS) to address the dire need for reliable measures investigators could incorporate to research an altruistic trait and the altruistic personality. Using the SRAS, a twenty item behavior specific trait scale, Rushton et al. found support for the existence of an altruistic personality based on the consistent patterns of individual differences in altruistic behavior across situations. Witt and Boleman (2009) adapted Rushton et al.'s 20-item scale to a 14-item model for use in the CYFAR Life Skills Project Youth Development Initiative (Duerden, Witt, & Boleman et al., 2010) at Texas A&M University (*Adapted Self-Report Altruism Scale*, 2013). The SRAS simplifies altruism measures by asking specific behavior questions for respondents to answer yes or no. Obviously, there is no perfect measurement scale but the SRAS has been extensively used and validated.

An important study of altruism by Smith et al. (2006) looked at altruism on American television as depicted by acts of helping and sharing. Using a social cognitive theoretical approach to examine potential adoption of altruistic behaviors from television

viewing, Smith et al. first randomly sampled programs across 18 channels and differing

genres to collect a full week of television content. After a thorough content analysis the

results indicate entertainment television programs average 2.92 altruistic acts per hour

with nearly 75% being realistic in nature and about 65% happened in live action. Smith

et al. believe the context of altruistic behaviors on television "fit with those aspects of

social cognitive theory that would best facilitate modeling of helping and sharing

behaviors" (p. 714). Although not all findings were as positive as the number and

context of altruistic acts (for instance most of the altruistic actions on television are

initiated and received by white men) but the findings reveal viewers are being exposed to

a great deal of pro-social content from television programming. Unfortunately, violent

and materialistic content also dominates the television landscape and certainly could be

"modeled" by viewers just as altruism. To better understand the impact of materialism in

television content a review of a few relevant studies on materialism follow.

Materialism as a Value

A variety of definitions for materialism have been suggested, but Belk's (1985)

definition appears most widely used in the literature reviewed. Belk defines materialism

as "the importance a consumer attaches to worldly possessions. At the highest levels of

materialism, such possessions assume a central place in a person's life and are believed to

provide the greatest sources of satisfaction and dissatisfaction" (p. 265). Belk also

addresses what he refers to as "specific materialistic traits," which include

possessiveness, non-generosity, and envy each having a separate measurement subscale.

Richins and Dawson (1992) use Belk's definition of materialism along with a number of

others in their development of a measurement scale, the Material Values Scale (MVS),

for the value orientation of materialism. A number of salient issues are discussed by Richins and Dawson in clarification of materialism including: Acquisition centrality, acquisition as the pursuit of happiness, and possession-defined success. Further, Sirgy, Lee, Kosenko, Meadow, Rahtz, and Cicic et al. (1998) use Belk's definition of materialism in their examination of life satisfaction. While Easterlin and Crimmins (1991) define private materialism as "one's own material well-being" (p. 501), Kwak, Zinkhan, and Dominick (2002) define a perceived materialistic-society view as "the audience's psychological perceptions of a materialistic-laden world view derived from heavy exposure to television commercials" (p. 83). For the purpose of this study, Belk's (1985) definition of materialism has been used with a nod to the Oxford English Dictionary definition (Richins & Dawson, 1992) for its simplicity. Therefore, materialism is "devotion to material needs and desires, to the neglect of spiritual matters; a way of life, opinion, or tendency based entirely on material possessions where such possessions assume a central place in a person's life becoming the greatest source of personal satisfaction and dissatisfaction" (Belk, 1985, p. 265; Richins & Dawson, 1992, p. 304). Of course, this definition describes materialism at its most extreme yet takes into account that varying degrees of materialism certainly exist.

Besley (2008) used data from the European Social Survey (ESS) collected in 2004 to examine the impact of television, radio, and newspapers on individual values. Besley hypothesized that exposure to entertainment television would be positively related to consumerist values based on answers to Schwartz's Portrait Values Questionnaire (PVQ) included in the ESS. Findings in this secondary analysis indicate significantly positive relationships between viewership of entertainment television programming and values

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associated with hedonism, power, and achievement as well as tradition, conformity, and security. According to Besley, the latter values (tradition, conformity, and security) enhance existing power structures while the former (hedonism, power, and achievement) serve to bolster materialistic values. Besley reiterates fears stemming from cultivation research about potential outcomes of consumer-oriented television programming which is basically suggesting "that individuals should think of themselves as consumers whose primary goal should be obtaining prestige and personal success as defined by existing social standards" (p. 323). Besley goes on to suggest values-oriented research needs to be actively pursued by all communication scholars not just the advertising sector because the values disseminated through media, over time, begin to emerge in the media consuming public. Besley's study further confirms the location of materialism on the Schwartz circumplex value structure providing more support for models tying materialism to hedonism and pursuit of power.

Shrum, Lee, Burroughs, and Rindfleisch (2011) used two studies to look at television viewing, materialism, and life satisfaction. The first study manipulated materialism in the viewing content revealing heavy television viewers who were transported into the narrative scored higher on materialism than those not transported and those in the non-materialism condition. This supports the contention by Shrum et al. that second-order cultivation effects occur during on-line processing of the viewing experience. Further, on-line processing of values judgments may lead to adoption of values portrayed as was the case in the first study. The second study was a national survey testing television viewing and the cultivation of materialism for impacts on life satisfaction. Study results indicate "television viewing cultivates an emphasis on material

values, which in turn reduces life satisfaction" (p. 47). Shrum et al. suggest researchers not overlook the importance of second-order cultivation effects because they occur during the processing of a viewing experience thus imprinting relevant information in memory for easier retrieval at a later time when real-world judgments are being made—such as values judgments. This study is particularly relevant to the present investigation due to the parallels of narrative transportation, materialism, and second-order cultivation effects.

Another study looked at the impact of materialism on life-satisfaction; in a multi-country investigation Sirgy et al. (2012) linked advertising, materialism, and life-satisfaction by exploring perceptions of advertising. Sirgy et al. propose that materialistic individuals evaluate their standard of living more frequently than non-materialistic people and the increased frequency of evaluations will naturally lead to negative more negative evaluations because of repetition over scrutiny. Another proposition from this study posits that advertising which is perceived to be materialistic will, just from the perception of materialism alone, increase materialism. Results support a number of hypotheses including perceived materialism in advertising leads to materialism so that "lasting impressions from ads that links consumer goods and services with status and prestige seem to be a key factor influencing the development of materialism" (p. 96). Also, a significant negative relationship was found between materialism and life-satisfaction indicating materialistic people are more likely to look at their standard of living frequently and consistently to the point of generating more negative evaluations which lead to overall dissatisfaction with standard of living, and, hence, dissatisfaction with life. Sirgy et al. conclude their study has "demonstrated a clear connection between

advertising and life dissatisfaction" (p. 97) as perception of materialistic advertising leads to materialism and materialism leads to life-dissatisfaction.

A final study linking materialism to negative outcomes is the investigation by Promislo, Deckop, Giacolone, and Jurkiewicz (2010) looking at the impact of materialism on work-family conflict. Promislo et al. ask the question can valuing money and material possessions lead to conflict between work and family? Attempting to help fill the void caused by a lack of interest in studying how personal values might be a source of work-family conflict, two components of potential conflict were examined: Work interference with family (WIF) and family interference with work (FIW). Past research indicates competing demand for time as a primary source of work-family conflict and materialistic tendencies and drives would certainly make work a premium demand in order to obtain the material rewards reaped through increased work time; additionally, research suggests materialism leads to behaviors and goals detrimental to well-being from the perspective of both work and non-work circumstances. Study results show materialism was significantly correlated with WIF and work overload, and, additionally, work overload was significantly correlated with WIF; also FIW was significantly associated with materialism. Results from this study strongly support the proposal that personal values people cultivate, in particular materialism and its manifest goals and behaviors, can have a significant impact on work-family conflict. This study adds further support to the idea that disseminating values messages through television content can have detrimental effects on the viewing public.

One source of potentially materialistic television content is advertising and any prevailing messages contained therein. Of particular interest to this investigation is

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advertising and values messages (because this thesis examines transportation into TV ads) so the following section will explore how values may find their way into advertisements and how researchers are examining advertising and its potential impacts.

Advertising and Values

In a bold effort to understand and explicate advertising and advertising theories Thorson and Rodgers (2012) offer a summarily succinct definition of advertising as "paid communication from an identified sponsor using mass media to persuade an audience" (p. 4). They further indicate that commercial advertisements are typically developed and designed by professionals whether they are audio-visual, print, or online messages. Thorson and Rodgers suggest a model where seven components—1) audiences, 2) message sources, 3) advertising organizations, 4) messages--intended effects and unintended effects, 5) media channels, 6) devices, and 7) contexts—must be attributes of a message for it to be considered an advertisement. Further, each component can be examined by the individual characteristics it exhibits; from this model, they hope to synthesize various literatures and theories into a "whole" advertising theory for enhanced study. Much of advertising research borrows from a wide range of fields including: Psychology, sociology, biology, persuasion, law, social psychology, marketing, etc. and a model of the advertising field can help organize prior and on-going advertising research (Thorson & Rodgers, 2012). As the field of advertising research continues to blossom, the idea of creating a foundation for understanding and developing advertising theory and research is ever important.

Advertising is intended to convey product information to consumers knowing the extant possibility consumers may purchase the advertised product. From this perspective,

the advertising goal is to provide some stimulus, a specific advertisement (ad), for media dissemination. Many hands are involved in developing an advertisement or advertising campaign including: Advertising and marketing departments, economists, lawyers, research consultants, and various creative departments and individuals, among others. According to Preston (2012), many of the parties creating an ad are inflexible when it comes to understanding and incorporating academic research into the process. Many of these "Ad Men" conceive of only one stimulus (the ad message) meaning there is only one response (that intended by the advertiser). Preston suggests this inflexibility is common throughout the industry though not universal, and, as research indicates, numerous responses are possible and probable to any advertisement. Preston concludes that theorists and researchers need to "sell" their research to these industry insiders so relevant, valid research results can be used in development stages of advertising campaigns.

One can easily see the importance of research in the realm of advertising knowing ads are attempting to influence audience behavior (to make a purchase). Certainly there is the possibility advertising could impact the attitudes, beliefs, and values of an intended audience. Fogliasso and Thuo (2013) looked at how values may impact advertising from the perspective of the advertiser. The authors discuss the importance of marketers understanding the cultural values of a target audience, ever in flux, and how the advertising message should be tailored to adopt the social values of consumer targets. Because consumers can only interpret and react to advertisements from the cultural perspective they know, the social and cultural values expressed in an advertising message play an important role in consumer response to the message. Fogliasso and Thuo suggest

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marketing myopia, a short-term marketing strategy, is less effective than a "customer centric" approach (consumer focus) which focuses on marketing products to potential customers rather than just selling a product (product centric). Ultimately, according to Fogliasso and Thuo, consumers have the power to shape society and its values through the process of accepting or rejecting advertising messages and the products therein.

Krauss (2011) looked at the marketing of cultural values to men by comparing Old Spice advertisements from the 1950's and 2000's to better understand the macho male image still popular in media advertising. According to Krauss, the fundamental characteristics of masculinity marketed to men have not changed even though many cultural shifts and changes have occurred offering men the freedom to express other, less masculine facets of their personalities. At the heart of this dilemma lies the mythical ideal – "boys will be boys" and its residual attachments: Men and masculinity are associated with the base passions of sex, power, and money and these become the main descriptors of what it means to be a man. Krauss believes the American male identity crisis is further exacerbated by a mass mediated reality (advertising, television, film) depicting masculinity as the expression of machismo, chauvinism, and the pursuit of sexual pleasure even while many socioeconomic factors have begun to unearth the prospect of a new, more nurturing and emotionally cognizant expression of masculinity. Herein lies the power of advertising—the ability to market values in the face of conflicting messages and still influence cultural and personal value orientations.

Advertising has managed to evolve and change along with cultural and technological changes allowing it to become not only a mirror to but also a reflector of cultural values and technological shifts—including the increasing focus on visual

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imagery apparent in both popular culture and advertising (Ciochetto, 2011; Fogliasso & Thuo, 2013; Thorson & Rodgers, 2012). Even obscure cultural values such as time (Wolburg, 1999) can be manipulated by advertisers to more effectively connect consumers to their products. As Wolburg suggests, all cultures have unique patterns of time that are observed by its people and "to function in a culture it is as necessary for individuals to learn the language of time as it is to learn the spoken language" (p. 419). Advertisers can make references to time in their ads based on the unique patterns followed by different cultures and thus manipulate time as a value.

Sundar, Xu, and Dou (2012) apply Sundar's (2008) Main Model[5] (Modality, Agency, Interactivity, and Navigability) to show how technology can influence persuasion during online activities. Here, one may see how advertising has morphed into the computer age and researchers are examining the impact of new technologies on persuasive appeals; accordingly, the "Main Model is an attempt to provide a theoretical account that takes into account both the technology and the psychology of its use" (Sundar, Xu, & Dou, 2012, p. 367). Ciochetto (2011) suggests advertising is a link between, not only products and customers, but also the economy and culture; through culture, advertising uses values to create meaning and worth for products from consumer perspectives. Advertising, serving as propaganda for consumption, becomes the primary purveyor of values associated with consumption and the self-gratification, or, hedonism often accompanying a narcissistic focus on personal wants and desires begins to dominate consumer consciousness. By extending personal desires beyond basic needs advertisers can create demand for an ever-increasing array of disposable products. Throw away products eventually take a toll on the environment. Ciochetto (2011) sees the increasing

force of global marketing by multinational corporations as a threat to the limited resources on an already overburdened planet because it directly promotes a culture of consumption and the ever present need to keep buying more "stuff."

Holden (2001) looks at the effect advertising has on values when it is employed to both bridge an ethnically divided country and help forge a national identity while attempting to keep the undesirable values associated with consumerism from gaining a foothold. Post independence Malaysia faced a dilemma: Racial tension among the three population subgroups (Maylays 57%, Chinese 33%, and Indians 10%) erupted as Maylays maintained most of the governmental power and control thereby marginalizing other populations. As Chinese and Indian cultural traditions were displaced in favor of Maylay beliefs and practices, attempts at a national unification through governmentally controlled advertising created an odd contrast: Encouragement of both individual ethnic uniqueness and national identification all while trying to prevent the influx of global and, in particular, western ideologies and values. As advertising spurred capitalistic growth and Malaysian modernization another dilemma loomed on the horizon—the threat of moral and social degradation accompanying a culture based on consumption of consumer goods and the inherent values and practices (personal freedom, self-gratification, object orientation, materialism, and conspicuous consumption) associated with advertising, consumerism, and capitalism (Holden, 2001). Even as Malaysian political leaders attempt to prevent the moral decline associated with modernization and capitalism, Holden concludes "[c]ommercial culture (operating through the agency of advertising) – with its endless stimulation, invented needs, panoply of lifestyles, audience fragmentation and ideational empowerment – poses a monumental challenge to a nation seeking

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cohesion, identity, *and* a fully modern life on its own terms" (Holden, 2001, p. 292).

From cultural values to the recreating of national cultural identities, Silk and Andrews (2001) suggest transnational corporations may be crossing boundaries better left to non-commercially driven forces. According to Silk and Andrews, the global advertising industry plays an ever-increasing role in the way nations are imagined, understood, and experienced to the extent where corporate capitalism is changing cultural identities, to more closely align with capitalistic goals, while still upholding national cultures but in a diminished, considerably diluted form. This may, at first thought, seem impossible but according to Anastasio, Rose, and Chapman (1999) media have become a powerful force often creating public opinion through television content portrayed as an accurate reflector of reality. As media become the window through which individuals experience the outside world more and more of their subtle depictions intrude into our construction of social reality. A popular advertising method used by transnational corporate capitalism to construct cultural reality is the marketing of sport to reconstitute nations. Because sport is a globally pervasive cultural phenomenon, with local attachments, it serves as a sort of cultural shorthand for national contexts; corporations use the public connection with sporting teams as a foundation to begin the subtle shift to a more capitalistic, consumer driven culture (Silk & Andrews, 2001). Using sport, transnational corporations can expand "globally" yet find relevance "locally" thereby playing a significant role in the shaping of national cultures through advertising campaigns.

To accomplish such wide ranging goals advertisers harness every tool available to capture the attention of a consuming public. Hazlett and Hazlett (1999) realized it was

necessary to find new methods to pretest television commercials packed with emotionally stimulating content laced with both sensual and sensory stirring imagery using music, humor, drama, and special effects to capture viewer attention. To measure emotional responses to television commercials Hazlett and Hazlett used electromyography (EMG) to observe minute facial muscle movements through electrical activity in facial muscles. Human facial expressions are one of the most revealing emotion behaviors displayed (Ekman & Friesen, 1975, 1978) and therefore serve well as an indicator of emotional response to a stimulus. EMG participants viewed 17 30-second commercials, recorded during prime-time television programs, filling out self-report questionnaires between each commercial; a control group viewed the same commercials with self-report measures sans EMG. Study results, as predicted by Hazlett and Hazlett, show facial EMG responses were a more accurate predictor of recall than self-report measures and EMG was a more sensitive and precise method for discriminating between emotional response to commercials for similar products. Further, facial EMG was an accurate predictor of emotional response to emotion stirring content within each commercial, thereby, supporting the second hypothesis. This study provides solid evidence that television commercials are being produced that can elicit powerful emotional responses from viewers and these emotional responses serve to bolster the impact an advertisement may have on not only recall and memory but also on future physiological (emotional) behaviors in response to advertised products.

To examine the impact of affect (emotion) in television advertising Ambler and Burne (1999) developed a model (MAC—Memory>Affect>Cognition) for testing the idea that memory is primary in decision making but can be impacted by affect which may

or may not entail cognitive activity. To test the role of affect in the recall and recognition of television advertising Ambler and Burne used a *B*-blocker (Propranolol), which inhibits the ability for one to experience emotion but still allows one to recognize emotion in stimulus materials and has no effect on attention and cognition, to compare a control and placebo group. Participants viewed a 24-minute university course containing two three-minute commercial breaks (eight total advertisements). Immediately after viewing the stimulus materials questions were answered about the ads and the background material including questions on brands and the storyline of any four of the eight commercials; participants also rated the advertisements as either cognitive or affective based on their viewing (four in each category). Twenty-four hours after viewing the stimulus material 100 still images were shown to participants on a computer; 20 from the background material and 10 each from the eight ads. Images were displayed randomly on the screen at various intervals (varying for recognition and image-free recall) while participants indicated where they had seen the image (either in the background material or advertisement) and what happened in the advertisement storyline after each image.

Approximately four weeks after viewing the stimulus material participants received a questionnaire by mail, which was identical to the first questionnaire (filled out immediately following the viewing), to assess long-term recall. Results indicate affective advertisements garnered significantly greater recall scores and ad image recognition scores. Further, the placebo group had a significantly greater recall of affective commercials while the control group (those receiving the *B*-blockers) recalled both affective and cognitive commercials equally. These results show, in line with

neuroscience research, that using emotionally stimulating advertisements enhances long-term memory (Ambler & Burne, 1999). Although this study has certain limitations (small sample size, methodology for selecting advertisements, and long term memory effects—from initial questionnaire to the four-week questionnaire) it reveals the potential for emotionally charged commercial advertisements to have long term impacts on viewers. Of course, all television content that is emotionally charged could impact viewers including persuasive content like public service announcements. In fact, public service announcements are specifically designed to impact thoughts and behavior as detailed in the following section.

Public Service Announcements

A good definition for a public service announcement (PSA) is a public interest message disseminated, free of charge, by media channels with the intent of not only raising awareness but also changing attitudes and behavior in regard to various social issues. Media outlets, especially radio and television broadcasters, are required by the Federal Communications Commission (FCC) to serve the public interest and airing PSAs is one of the methods used to meet this requirement. All Ad Council PSAs are produced by the Ad Council (Ad Council, 2014) with the help of national non-profit organizations or a federal government agency and are developed to educate and inform the public about important social topics ranging from health and human services to environmental issues like preventing forest fires and experiencing nature as well as emergency preparedness and other safety issues. PSAs are similar to commercials because they are brief and to the point, delivering their message quickly, and they appeal to emotions while attempting to influence attitudes and behaviors (Calvert, Cocking, & Smarcek, 1991).

Research suggests PSAs are effective persuaders and, according to Dillard and Peck (2000), "many attempt to do so by evoking an emotional response in the audience" (p. 461). Soliciting emotional responses through a broadcast PSA can also provoke unintended emotional reactions (Dillard & Peck, 2000; Nan, 2009) which may interfere with the persuasive intention of an ad—therefore researchers continue efforts to better understand processes mitigating the persuasive power of PSAs. Nan (2009) found partial support for the contention that those who have a strong faith in intuition (those who trust their feelings) will show a greater persuasive influence from message-induced emotions than those with a weak faith in intuition. The compelling idea here is people with a strong faith in intuition may tend to base judgments on experienced emotions and, therefore, messages manipulating emotions could prove more persuasive in effects on attitudes and beliefs. Nan suggests the partial support for hypotheses may indicate effects are confined to specific PSAs and emotions but more research is needed to better understand the impact of message-induced emotions.

Shen (2010) looked at the role message-induced state empathy plays in the persuasion process of PSAs. According to Shen, study results show state empathy is a better predictor of persuasion than cognitive and affective responses to a persuasive message. Also, state empathy was able to reduce the effect of psychological reactance which may further impact persuasion. Shen also found some indirect evidence that state empathy may lead to decreased message processing, but study limitations prevented further investigation. Shen concludes empathy-based appeals can be a useful alternative to emotion-based appeals because they impact persuasion and they have an "ability to mitigate psychological reactance" (p. 413).

Reeves, Newhagen, Maibach, Basil, and Kurz (1991) looked at the memory and attention effects of both negative and positive emotion PSAs, finding that PSA messages with negative emotion elicited less attention but were remembered better than positive emotion PSAs. According to Reeves et al. the apparent incongruity, less attention = better memory, may have to do with a "mindful quality of attention" (p. 691) emerging during secondary task measures used in experimental settings. Although both positive and negative PSAs were remembered it could be negative emotional appeals "compel attention [are better remembered] to the degree that they pose a threat to survival" (p. 691).

As research accumulates concerning the impact of PSAs (brief narratives) on the viewing audience communication campaign researchers have been studying perceived message effectiveness to better understand the role audience perceptions play in message effectiveness. The following studies look at how audience perceptions may influence the outcome of mediated communication.

A series of studies by Dillard and Peck (2000, 2001) sought to better understand the role of emotion and perceived message effectiveness in the persuasion process for communication campaigns. Eight PSAs were viewed by study participants; after each PSA questionnaires were completed where participants recorded their emotional, cognitive, and attitude responses to each PSA. Results indicate emotion is a better predictor of perceived message effectiveness (PE) and each separate emotion (surprise, fear, anger, sadness, guilt, happiness, and contentment) has a unique impact on PE which also mediated the effect of emotion and cognition on attitudes toward the issue addressed in each PSA. This reveals the possibility PSAs (brief narratives) can trigger emotional

responses and these emotional responses may then impact persuasion above and beyond cognitive responses. Dillard and Peck (2001) suggest understanding the impact of individual/discrete-emotions may help researchers better comprehend the role of emotion elicited by brief persuasive messages.

Dillard, Shen, and Vail (2007) further clarified the role of PE in the persuasion process by performing a series of studies looking at the effectiveness of PSAs. The goal of these studies was to determine whether perceived message effectiveness (PE) impacted actual message effectiveness (AE) or vice versa; the implications of this phenomenon are more important than it may appear: According to Dillard, Shen, and Vail, theory and data indicate attitudes shape beliefs and related attitudes which would indicate AE $\rightarrow$ PE rather than PE $\rightarrow$ AE therefore if, indeed, PE $\rightarrow$ AE then PE becomes a valuable research tool in the construction of communication campaigns. Also, if PE $\rightarrow$ AE the seeds are sown for potential impact on attitudes and beliefs through the persuasion process for messages that are perceived as being effective. Five separate studies (two using data from previous research) were conducted by Dillard, Shen, and Vail (2007) revealing (through 17 separate tests) "evidence consistent with the notion that PE causes AE, [and] [t]he pattern of results is notable not only for its uniformity but also for the variations in the conditions under which it was observed" (p. 480). Despite overwhelming support indicating PE causes AE the authors remain cautious because all five studies were performed in the lab where conditions can be controlled and, therefore, may not be applicable to real world conditions. According to the results of this series of studies perceiving a message as effective could have persuasive impacts on the perceiver when exposed to brief persuasive messages, and, extended further, this influence could

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potentially effect beliefs, attitudes, and values.

Further support for the link from PE → AE comes from a study by Bigsby, Cappella, and Seitz (2013). Seeking to further validate PE as reliable measure of AE, Bigsby, Cappella, and Seitz used a total of one hundred anti-smoking television PSAs between two studies (60/40 respectively) that were randomly distributed in an online questionnaire to ensure little, if any, overlap. A nationally representative sample of smokers was assembled through the Knowledge Networks Knowledge Panel who oversees the entire process of accumulating qualifying participants (1,139 for both studies) to ensuring a final acceptable number of completed questionnaires. Each participant filled out an online questionnaire which included four PSAs; initially, questions concerning smoking, health, and individual differences were answered then participants viewed each of the four PSAs, answering specific questions between each viewing, before answering questions concerning beliefs and attitudes about health and smoking, behavioral intentions, self-efficacy, and any additional comments or feedback.

Results indicated PE is a predictor of AE "even when controlling for key behavioral intention predictors" (p. 20). Because this study was designed to control for individual bias (by calculating aggregate scores from each individual viewing a specific PSA rather than using an individual score), and to be a representative national sample (adults ranging in age from 18 – 66 drawn from a national sample), combined with the purposeful use of PSAs (messages) taken from a very large sample (100 PSAs) randomly distributed to all participants (each individual saw random PSAs in a different sequence than every other individual), this study becomes a very accurate gauge of the persuasive potential that PSAs may actually have.

Although this thesis does not look at perceived message effectiveness a number of the studies just reviewed appear to show the perception of a message as being effective may play a unique role in the persuasion process and, thereby, have the potential to influence attitudes, beliefs, and values. Viewer perceptions will certainly play a role in the viewing experience and those perceptions are likely to influence all other potential outcomes from a viewing event including the possibility for transportation or cultivation effects.

This literature review has examined the theoretical concepts connected to this study attempting to gain a clearer understanding of narrative transportation research and second-order cultivation effects, as well as specific values, in order to develop research questions and hypotheses. Chapter III will put forth a number of research questions and hypotheses based on this review of literature including questions about transportation and television viewing habits. Additionally, questions about how values are impacted by transportation and what happens when transported individuals are exposed to specific values will be advanced. Following Chapter III a methods section in Chapter IV will provide details of an experiment enacted to test these research questions and hypotheses.

CHAPTER III

RESEARCH QUESTIONS AND HYPOTHESES

This study attempts to determine if viewers will be transported into a brief narrative; further, it looks at the potential for values messages to be disseminated through television advertising. It seems reasonable to speculate that values like materialism could certainly be a characteristic of the content in television advertising (commercials); indeed, it seems highly likely that advertisers would want to encourage the accumulation and consumption of material goods. More than speculation, Shrum, Burroughs, and Rindfleisch (2005) found that viewers did cultivate materialism values from exposure to television programming. Further, they were able to demonstrate that viewers with a higher trait "need for cognition" (NFC), who were also heavy viewers, showed more materialistic values. Viewers with a high NFC tend to elaborate more and pay closer attention to the programming; these individuals are also more likely to be transported (engrossed, involved) into the narrative. According to Green and Brock (2000) transportation into narratives can affect beliefs; this occurs through focused attention to and absorption into the presentation. To test these relationships Shrum et al. (2005) had participants in two groups watch 19 minutes of two different movies followed by two minutes of television commercials; they manipulated whether the movie contained materialistic values or not. The proposed study seeks to advance the work of Shrum et al.

by examining the effects of values messages in brief narratives such as those found in television commercials and public service announcements. Initial questions ask if short narratives and television viewing habits can induce transportation.

RQ1: To what extent will viewers of TV ads and PSAs experience transportation?

Cultivation theory looks at television viewing and how one's viewing habits may affect one's social reality conception or worldview. According to cultivation theory, viewers who watch more television will be more likely to construct cognitive reality based on images, portrayals, and ideas presented in television content. Additionally, exposure over time may influence personal value and belief structures as suggested by Shrum et al. (2005). For this study, television viewing habits will be measured by two scales: Rubin's (1981) five-item Television Affinity Scale (TAS) and, serving as a reliability check as well as providing supplementary data, a 10-item Television Viewing Habits Scale (TVH) that has four-items adapted from Shrum et al. (2005, 2011) with the additional six items created by the current author.

Rubin (1981; also Rubin & Rubin, 1982) developed the TAS during studies attempting to better understand motivations for television viewing. From a uses-and-gratifications foundation, Rubin was looking for relationships between age and television viewing motivations and viewing behaviors; results indicated positive significant relationships among television viewing motivations and amount of television viewing, television affinity, and perceived realism (Rubin, 1981). Further, according to Rubin, gratification of viewing motivations could be satisfied if the viewer were "simply to watch greater amounts of television" (p. 158). Rubin and Rubin (1982) further developed the TAS in a study looking at patterns and motivations in television viewing of older

adults (age 55-92). For the most part, Rubin and Rubin were attempting to increase knowledge of motivations for television viewing in an aging population. Results of the study found television affinity to be significantly correlated with nearly all television viewing motivations and amount of daily television viewing. Also, "amount of viewing can be predicted from respondents' television viewing motivations" (p. 307), and, more pertinent to this discussion, "television affinity can, even more strongly than amount of viewing, be predicted from respondents' television viewing motivations" (p. 307). These studies and others provide support for using the TAS as a primary measure of television viewing habits, and as an indicator for level of television viewing in accordance with cultivation theory.

Shrum, Lee, Burroughs, and Rindfleisch (2011; also Shrum, Burroughs & Rindfleisch, 2005) used a six-item Likert-type scale measuring level of television viewing to more accurately account for time spent watching television rather than relying on estimates of daily time spent watching TV. Shrum et al. (2011) suggest using a multi-item scale is more proficient than "single-item measures [because] hourly estimates of daily viewing may be less reliable" (p. 46). Additionally, the Likert-type scale allows for levels of agreement providing participants room to better evaluate their relationship with television viewing. The television affinity scale has been used as a substitution for "hours spent watching television" to measure television viewing habits, and has also been adapted to measure other media habits.

Davies (2007) found a "strong relationship between television affinity and time spent with television" (p. 133) when studying the impact of entertainment television on Mormon young adults. Results from Davies study indicate young adult Mormon's use of

entertainment television is partially a product of the social system and religious moral authority (as measured by the Moral Authority scale) in a complex uses-and-dependency relationship. As time spent with entertainment television increased (measured by the TAS) the impact of religious moral authority decreased so "lighter viewers [...] scored higher on the Moral Authority factor, whereas heavy viewers tended to score higher on the Seeking Personal Gratifications factor" (p. 145). Davies (2007) finding of a "strong relation between Television Affinity and self-reported frequencies of television viewing" (p. 143) is yet another indication the TAS works as a measure for level of television viewing. Other studies have adapted and used the TAS to measure various phenomena.

Ferguson and Perse (2000) used an adapted version of the TAS for a study looking at whether surfing the internet is a functional alternative to television viewing. Using four television viewing motives (Entertainment, Pass Time, Relaxation, and Social Information) to assess internet surfing motives Ferguson and Perse found the amount of internet use and internet "affinity were correlated positively and significantly to all four motives" (p. 166).

Papacharissi and Rubin (2000) also used an adapted version of the TAS in a study of the internet to find predictors of audience use. From a uses-and-gratifications perspective, Papacharissi and Rubin looked at how contextual age, unwillingness to communicate, social presence, and internet motives impacted internet exposure, satisfaction, and affinity. Once again, the affinity measure proved significant in findings with life satisfaction and interpersonal utility uses of the internet significantly associated with affinity. Papacharissi and Rubin conclude "similar to past television uses research, affinity was linked to a more ritualized use of the internet" (p. 193). Again, the television

affinity measure appears to be a consistent scale measuring level of use.

Another example of an adapted use of the TAS is a study by Kalogeraki and Papadaki (2010) attempting to discover what impact mobile phone adoption and use was having on Greek teenagers' socialization processes including peer and family interactions. The study looked at 1) perceived social support (PSS) from both friends and family (adapted to reflect perceived support through cell phone use); 2) availability—micro-coordination—safety via cell phone use; 3) emancipation via cell phone use; and 4) an adapted version of the TAS altered to measure cell phone affinity (the Mobile Attachment Scale). Results indicate the Mobile Attachment Scale (the TAS) "is significantly associated with all the variables under study" (p. 127) thus adding further evidence supporting the TAS as a measure for level of use. Another interesting study result shows a significant correlation between friend's and family's perceived social support suggesting social networking and peer bonding via cell phone communication is not an impediment to enhancing family ties (Kalogeraki & Papadaki, 2010). In sum, the TAS is a reliable and consistent measure for level of use among diverse phenomena such as that being investigated in this study.

To better understand how narrative transportation into a brief narrative will be impacted by television viewing habits, specifically level of television use, this study will further build upon research by Shrum et al. (2005, 2011) using the TAS to help examine cultivation effects. Above all, this study is interested in looking at the influence of transportation into a brief narrative and the impact second-order cultivation effects may have on a viewers construction of social reality through the adoption of values messages presented in television content; so, a second research question must address the potential

for transportation among heavy viewers of television content or, as explicated above, those with an affinity (a natural attraction or strong interest in watching more television) for television with the television affinity scale being used as the primary measure for level of television viewing.

RQ2: Will viewers with an affinity for watching television be more likely to be transported than viewers without an affinity for watching television?

The first set of hypotheses is based on the experimental design to test second-order cultivation effects by manipulating experimental conditions—exposure to either TV ads or PSAs—in order to reveal any direct effect exposure may have on materialism and altruism so:

H1a: Viewers of TV ads will show more materialism than viewers of PSAs.

H1b: Viewers of PSAs will show more altruism than viewers of TV ads.

Cultivation research has shown that prevalence judgments concerning ideas presented in the television text are impacted by memory based processes (Shrum, 2001). O'Guinn and Shrum (1997) suggest a cognitive process model aided by heuristic processing is at play in consumer construction of social reality based on the television text. The availability of relevant memories to be accessed, through the availability heuristic (Tversky & Kahneman, 1973), would provide heavy television viewers a wide array of exemplars from which to make prevalence judgments. Additionally, Shrum, Wyer, and O'Guinn (1998) advanced a model where memories more readily accessed by heavy television viewers lead to the cultivation of exemplars portrayed in television programming. These effects would be considered first order cultivation effects (Shrum &

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Lee, 2012).

Second-order cultivation effects concern on-line processing or encoding of information spontaneously occurring during our interaction with the outside world (Shrum & Lee, 2012). Spontaneous judgments that occur during experience have a higher likelihood to imprint cognitively, and, therefore, prevalence judgments during on-line processing are more likely to affect traits and values acquisition (McConnell, Rydell, & Leibold, 2002). If on-line processing impacts values in television viewers this effect occurs during the viewing, or encoding, of the information transmitted. Shrum et al. (2005) found that processes supporting message encoding (cognitive-elaboration and attention) increased retention of messages in the memory of viewers leading to higher scores on materialism scales. Since viewers with a high need for cognition tend to elaborate more and pay closer attention to media presentations (Shrum, Burroughs, & Rindfleisch, 2005) the second hypothesis proposes these viewers will show a greater likelihood to be transported into the narrative, hence:

> **H2:** Viewers who pay more attention and show a high need for cognition
>
> will be more likely to be transported than viewers who pay less attention
>
> and show a low need for cognition.

Because need for cognition and attention may impact cognitive processes associated with second-order cultivation effects, a final hypothesis predicts that viewers paying more attention with a high need for cognition, once transported, will measure higher in both materialism and altruism, respective to experimental conditions, and therefore:

> **H3:** Narrative transportation will moderate the impact of value-laden brief
>
> narratives on the relevant experimental conditions so that an increase in

transportation will lead to an increase in impact (i.e., higher scores for materialism and altruism).

CHAPTER IV

PROCEDURES AND METHODOLOGY

Method

    Experimental method. This study used a three-group posttest-only experimental design, with the manipulation consisting of forced viewing of TV ads or PSAs, and a posttest questionnaire tapping dependent variables; a control group completed the same questionnaire without the exposure and its related questionnaire items. Additionally, a pre-exposure questionnaire section measured personality characteristics and other stable constructs not expected to change with the experimental manipulation.

    Pilot test. A pilot test was first created and then administered through SurveyMonkey using students enrolled in communication courses at an urban Mid-Western University to determine which TV ads and PSAs to use for the experimental survey conditions. Condition 1 (TV ads) had 24 respondents viewing 10 TV ads while Condition 2 (PSAs) had 26 respondents viewing 10 PSAs. All videos were retrieved from YouTube[6] using various search methods over a two-week period. Each video was followed by: Seven yes or no questions focused on key elements being examined in this experiment (this video is humorous; this video is dramatic; this video captured my attention; this video does a good job of portraying nice things people can buy; this video pulled me into its story; this video made me think; this video does a good job of

portraying nice things people can do for others); a 1-10 rating scale for how much they liked the video; and a textbox for additional comments about the video. Students participated in the survey on their own time, via computer, for class extra credit. Results from SurveyMonkey were loaded into a Microsoft Excel file then transferred to SPSS for configuration; once the data were arranged and reconfigured in SPSS descriptive statistics were run on the seven questions and the rating scale (since the additional comments textbox was optional few responses were recorded in the data and analysis was unnecessary). After running descriptive statistics a focus on the means (for each question and the rating scale) led to selection of the five highest means narrowing down the videos for possible use in this experiment. Finally, focus was shifted to the two highest scoring videos across all questions, and the rating scale, from each condition; surprisingly, two videos from each condition consistently produced the highest means across the board including a representative from both the dramatic and humorous genres. From the results of the pilot study two videos were selected from each condition for use in this experiment[7]; additionally, for each condition a dramatic and a humorous representation was selected.

Experiment videos. Pilot study results indicated two videos from each condition with consistently high means for all questions in the pilot study. These videos were selected for use in the experiment. For the TV ads condition, the dramatic commercial is Volkswagon Jetta—Big Day, a 30 second commercial produced and released in 2001 in the US. According to ADVERTOLOG (2014) "[t]his spot features a man on a mission. It's the most important day of his life. And there's a whole lot of road between here and there. Will his Jetta come through?" Clearly, this commercial is a dramatic narrative

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with a compelling story depicting a man navigating various obstacles in his 'Jetta' trying to make it somewhere on time. This commercial won an International Automotive Advertising Silver Award for Cinematography, Original Music, and Brand in 2001.

For the TV ads condition, the humorous commercial is Ikea Dog—Tidy Up, a 30 second commercial produced and released in 2001 in Singapore. The TVadsView comment by Reah Guevarra (2008) sums up this commercial quite nicely—"The expression of the dog when he noticed that the house he entered looked different was cute and priceless"—this commercial won Film Gold at Cannes Lions in 2001 and *appeared* to be a good fit for the humorous commercial (see more in Discussion: Research Question 1).

Representing the dramatic video for the TV PSAs condition is Today Takes Action—Hunger Prevention, a 30 second PSA produced and released by the Ad Council, a non-profit organization responsible for the production, promotion, and distribution of public service announcements, in 2013. This PSA was one of four the Ad Council produced in a collaboration with NBC's The Today Show for a week-long series called "TODAY Takes Action" covering different campaigns (Hunger Prevention, Fatherhood Involvement, Emergency Preparedness, and Pet Adoption); each PSA featured a different anchor from NBC's The Today Show. According to FeedingAmerica.org (2013), "each anchor selected a different issue they feel strongly about" and helped find a creative way "to relay its message." Savannah Guthrie chose hunger prevention with the idea of racing "around New York City setting up the biggest dinner party ever."

The humorous PSA selected for use in this experiment is Fatherhood Involvement—Cheerleader, a 30-second PSA produced and released by the consortium

of the Ad Council, The National Responsible Fatherhood Clearinghouse, and volunteer ad agency Campbell-Ewald in 2008. According to the National Responsible Fatherhood Clearinghouse (Fatherhood.gov, 2014) the majority (86%) of fathers today spend more time with their children than their own fathers spent with them but many "also reported that they could use tips on how to be a better parent." This PSA actually shows fathers one way they could be a better parent—at least for young daughters.

Final participants. Three groups, Condition 1 (TV ads), n=85, Condition 2 (PSAs), n=69, and Condition 3 (control group), n=63, were used for this study. The participants come from a pool of students enrolled in communication courses at an urban midwestern university. The experiment was administered through the SurveyMonkey website and participants completed the study on their own time schedule. Students were given extra credit for participation. The study took approximately 25 minutes to complete. Demographic information and information about television viewing habits were collected during the experimental process.

Procedures. The SurveyMonkey website was used to conduct this study. A questionnaire was created and built directly on the SurveyMonkey website from the informed consent (p. 1) page through the thank-you for participating in this study (p. 31) page including pages containing links to the TV ads and PSAs. Participants were provided links to access the questionnaire for each separate condition; the experimental conditions contained video links to YouTube and were viewed, in full screen, through those links (via YouTube) embedded directly on the SurveyMonkey website on specific pages of the questionnaire. Participants completed the questionnaire on their own time and received class extra credit for participating in the study.

Measures

    Dependent measures. Narrative transportation was measured using 11 items adapted from Green and Brock's (2000) Transportation Scale including "I could picture myself in the scene of the events taking place in the segment" and "I was mentally involved in the segment while watching" as well as "I wanted to see how the segment ended." From the completed questionnaires transportation scores were compiled and combined by adding scores for the 11 transportation questions. By combining all the transportation question scores following the first video segment a variable was created to represent those scores: TransScale#1 consists of the compiled transportation scores from responses to the first video segment in each condition (TV ads and PSAs); the same procedure was followed for transportation question scores following the second video creating TransScale#2 which is the compiled and combined transportation scores from responses to the second video segment in each condition; finally, a variable representing all responses to transportation questions from both conditions, TransScaleBoth, was created to combine TransScale#1 and TransScale#2. Reliability scores for the transportation scales were good, even taking into consideration TransScale#1's (alpha=.62) slightly low coefficient, with the combined TransScaleBoth (alpha=.77) delivering a solid alpha and TransScale#2 (alpha=.81) producing the highest alpha of the three (see Table I for reliability coefficients).

    Altruism was measured using an adapted version of the Altruistic Personality and Self-Report Altruism Scale (SRAS; Duerden, Witt, & Boleman et al., 2010; Witt & Boleman, 2009). The 14 items included the following: "I would give directions to a stranger," "I would make change for a stranger," "I would offer to help a handicapped or

elderly stranger across the street." For the present study, these altruism items offered the

possibility of giving more than one response to each question (false, true, and have done)

Table I

Reliability Scores for Narrative Transportation

		N of items	Cronbach's alpha	Mean
TransScale#1		11	.62	
	Inter-Item Correlation			.14
TransScale#2		11	.81	
	Inter-Item Correlation			.27
TransScaleBoth		22	.77	
	Inter-Item Correlation			.14

and, thereby, created some difficulties in compiling for measurement. First, dummy

coding syntax was written and used to compile questionnaire scores accounting for all

those who 'would do' an altruistic act from both conditions (TV ads and PSAs) creating

an Altruism-Would Do scale; then, the same procedures were followed to compile

questionnaire scores for all respondents indicating they 'have done' an altruistic act to

create an Altruism-Have Done scale; finally, dummy coding was used to create another

variable accounting for the difference between those who 'would do' and those who

'have done' an altruistic act referred to here as Altruism-Difference. Altruism variables

gleaned from the altruism scale data were then used in the testing of study hypotheses:

Altruism-Would Do represented the extent to which respondents would perform an

altruistic act (which also represents those among the study's respondents who would not

perform an altruistic act), Altruism-Have Done represented the extent to which

respondents report having performed an altruistic act, and Altruism-Difference accounted

for the difference between Altruism-Would Do and Altruism-Have Done. Because of the

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necessity of creating new variables for altruism scale data measuring reliabilities of the altruism scale proved difficult with only the Altruism—Difference scale providing a reliability score (see Table II for both materialism and altruism reliability scores).

Materialism was measured using an adapted version of the 15-item Material Values Scale (MVS) (Richins & Dawson, 1992) developed by Richins (2004) including items such as "I'd be happier if I could afford to buy more things," and "I admire people who own expensive cars, homes, clothes." Similar to scales measuring narrative transportation, response scores for materialism measures were added across both conditions (TV ads and PSAs) and within the materialism subscales representing the appropriate questions from each subscale. To do this, all the responses to questions from each subscale were split into their representative scales producing three five-item scales for: Materialism-Success, representing thoughts and attitudes about the impact material values have on one's sense of personal success; Materialism-Happiness, representing thoughts and attitudes about the impact material values have on one's sense of personal happiness; Materialism-Possessions, representing thoughts and attitudes about the impact material values have on one's desire for personal possessions; and, finally, Materialism-Total is the combined total of all three materialism measures. Reliability measures were run on all the materialism subscale variables, including Materialism-Total, showing fair to good reliability for all the measures except Materialism-Possessions (Cronbach's alpha = .43). Despite a low reliability score of Materialism-Possessions the Materialism-Total scale proved to be highly reliable with a Cronbach's alpha of .79 (see Table II).

Predictor measures. Television viewing habits were measured by a four-item scale adapted from Shrum et al. (2005, 2011) using a Likert-type measure that includes

Table II

Reliability Scores for Materialism and Altruism

		N of items	Cronbach's alpha	Mean
MVS-Success		5	.74	
	Inter-Item Correlation			.35
MVS-Happiness		5	.62	
	Inter-Item Correlation			.25
MVS-Possessions		5	.46	
	Inter-Item Correlation			.15
MVS-Total		15	.79	
	Inter-Item Correlation			.20
Altruism-Difference		14	.85	
	Inter-Item Correlation			.17

items such as "I often watch television on weekends" and "I watch television almost everyday"; an additional six items were created by experimenters including "I spend time watching television everyday," "I like to watch my favorite television programs on a regular basis," and "I typically watch more than 4-hours of television a day." Because television viewing habits are being measured by a scale created, but not validated, by the experimenters (six of the ten items were created and four items were adapted) television viewing habits has also been measured with the Television Affinity Scale (TAS). The five-item TAS was developed by Rubin (1981; see also Rubin & Rubin, 1982) and includes items such as "watching television is very important in my life," "I would feel lost without television," and "watching television is one of the more important things I do each day." All responses to these items were combined across both conditions (TV ads and PSAs) creating two new scales measuring television viewing: The 10-item Television Viewing Habits Scale (TVH); and the five-item Television Affinity Scale

(TAS). Reliability measures were checked indicating both scales are highly reliable in this study (as shown in Table III).

NFC measures come from Cacioppo and Petty's (1982) Need for Cognition Scale and include items such as "The notion of thinking abstractly appeals to me" and "Thinking is not my idea of fun" as well as "I would prefer complex to simple problems" and "Learning new ways to think doesn't excite me very much." Cacioppo and Petty (1982) developed and validated the Need for Cognition Scale (NFC) which allows

Table III

Reliability Scores for TV Affinity (TAS) and TV Viewing Habits (TVH)

	N of items	Cronbach's alpha	Mean
TAS	5	.85	
Inter-Item Correlation			.54
TVH	10	.83	
Inter-Item Correlation			.32

investigators to examine whether some people may enjoy engaged thinking and actually be motivated to engage in cognitive activity during various sensory experience. The scale has been widely used since its development but usually in the short form Cacioppo, Petty, and Kao (1984) validated. The short form of the scale reduced the number of items from 34 to 18 with factor analysis indicating the 18-item version is more efficient while reliability measures between the two remain virtually equal. Additional confirmation of the need for cognition as an important personality variable was verified by Haugtvedt, Petty, and Cacioppo (1992). In a series of three experiments the differences in responses to advertising content were examined between participants with a low need for cognition and those with a high need for cognition by looking at the generation of either positive or

negative attitudes in response to arguments presented in advertisements. Using identical advertisements with either a strong or weak argument Haugtvedt, Petty, and Cacioppo were able to show that attitudes of high need for cognition participants fluctuated with their evaluations of product attributes whereas attitudes of participants low in need for cognition were less affected by their evaluations. Additionally, those with a low need for cognition were more likely to be influenced by peripheral cues (i.e., the attractiveness of a person in an advertisement), rather than the actual product attributes, in direct contrast to their high need for cognition counterparts. It would appear individuals with a high need for cognition process and evaluate messages and claims in advertisements more spontaneously than those with a low need for cognition and tend to have more resilient attitudes and beliefs (Haugtvedt, Petty, & Cacioppo, 1992). This study used the 18-item NFC scale.

In order to test study hypotheses, like all other measures in this study, all response scores for NFC questions across both conditions (TV ads and PSAs) were added to create a new scale (NFC) used to run appropriate tests. Reliability measures for NFC were quite high (Cronbach's alpha of .84) for this study as shown in Table IV (Table IV also includes reliability scores for attention scales).

Finally, attention paid to the viewing experience was measured using Rubin, Perse and Taylor's (1988) five-item Viewing Attention Scale (as used by Shrum et al., 2005) including items such as "I listen carefully when I watch television" and "I pay close attention to the program when I watch television." This scale, as developed by Rubin et al., is a subset of the viewing behavior and attitude scale they created and validated containing 15 items in three dimensions (viewing intention, perceived realism,

Table IV

Reliability Scores for Attention and Need for Cognition

		N of items	Cronbach's alpha	Mean
AttentionScale#1		5	.82	
	Inter-Item Correlation			.47
AttentionScale#2		5	.87	
	Inter-Item Correlation			.57
AttentionScaleBoth		10	.90	
	Inter-Item Correlation			.47
Need for Cognition		18	.84	
	Inter-Item Correlation			.23

and viewing attention); for the purpose of this study only the viewing attention dimension was measured. Three new scales were created from responses to the attention scale questions across both conditions (TV ads and PSAs): AttentionScale#1 was the sum of attention responses for the first video segment, and AttentionScale#2 was the sum of attention responses for the second video segment; AttentionScaleBoth was created by adding AttentionScale#1 and AttentionScale#2 for testing of the overall impact of attention. All three attention scales reported very high reliabilities as reflected in Table IV.

Control measures. When individuals are confronted with inquiries or questions about personal beliefs and values they may feel certain social pressures or expectations that cause them to respond in a socially desirable manner; due to the potential for socially desirable responding (SDR) to personal values questions specific measures to control for this construct were included in the questionnaire. Stober's (2001) Social Desirability Scale-17 (SDS-17) was included to control for SDR. Stober's SDS-17 is a modern,

updated scale based on and validated in comparison to, according to Stober, the outdated

Marlowe-Crowne Scale (Crowne & Marlowe, 1960) which more clearly relates to social

standards common in the 1950's. Stober validated the SDS-17 against other

contemporary measures of SDR (EPQ lie scale, Sets of Four Scale, NEO FFI,

Mummendey-Eifler Scale from the TPI, and the BIDR) finding it "a reliable and valid

measure of social desirability for adults of 18 to 80 years." The measure was further

validated by Blake, Valdiserri, Neuendorf, and Nemeth (2006) for use in the United

States. Through administration of three individual studies Blake et al. found validity for

the SDS-17 as a reliable measure for SDR in the US, but suggest more research is

necessary before validating the measure as an indicator of social desirability bias (SDB).

As a baseline measure of values the Short Schwartz Values Survey (SSVS) has

been included in the questionnaire to establish participant value orientations. Lindeman

and Verkasalo (2005) enacted four studies to test the validity and reliability of the SSVS

finding it as reliable and valid as the long form (SVS) and the Portrait Values

Questionnaire (PVQ). They also found validity when comparing gender, political

affiliation, religious background, etc. Overall, the SSVS appears to be a valid time-

saving option to administration of the full SVS. Although materialism and altruism are

not directly measured by the SVS or the SSVS they do exist as descriptors under the ten

dimensions as outlined by Schwartz's extensive and on-going values research.

Other baseline measures included in the questionnaire will be used to control for a

potential mediating or moderating influence on results. These include: The Brief

Sensation Seeking Scale (BSSS) (Hoyle et al., 2002), the Senses of Humor Scale (SOHS)

(Neuendorf, Skalski, Jeffres, & Atkin, 2014), third-person effect (Davison, 1983), and

psychological reactance (Hong & Faedda, 1996).

CHAPTER V

RESULTS

Sample Characteristics

All participants were students enrolled in communications courses at an urban mid-western university and received class extra-credit for participating in this study. The total sample consisted of 217 participants with 12 cases eliminated from analysis due to missing data leaving a final $n=205$. Of the 205 participants 53.2% were female ($n=109$) and 46.8% were male ($n=96$) ranging in age from 17-50 with a mean age of 21.87 years. 104 participants indicated racial background as white (55.6%) while 83 indicated non-white (44.4%) with 30 respondents missing data; a separate race/ethnicity question with a write-in response yielded a robust ethnic mix of participants.

Significance Level

Considering the current debate concerning the use of significance testing in social science research (Johnson, 1999; Morgan, Griego, & Gloeckner, 2001; Schmidt, 1996) a brief discussion of reporting methods to be used in this study is in order. According to Hair, Black, Babin, Anderson, and Tatham (2006) the most common "level of significance is .05, although researchers use levels ranging from .01 […] to .10" (p. 174) depending on how demanding or conservative they believe is necessary. This study will report significant results using standard levels of significance reporting (* - $p < .05$; ** -

$p < .01$; *** - $p < .001$) while results that are greater than .05 but less than .10 will be reported as near-significant (a - $.05 < p < .10$).

Research Question 1

The first research question asks to what extent will viewers of TV ads and PSAs experience transportation. Frequencies were run on narrative transportation scores for the first and second video shown in each condition (TV ads and PSAs) to determine narrative transportation across conditions and also a scale was created for both video segments combined: TransScale#1 is the combined transportation scores from responses to the first video segment in each condition (TV ads and PSAs); TransScale#2 is the combined transportation scores from responses to the second video segment in each condition; TransScaleBoth represents all responses to transportation questions from both video segments and conditions. Video segment 1 scores ranged from 14-53 (11-55 possible) with a mean of 33, segment 2 had a range of 11-54 with a mean of 31, and the range for the combined scale (possible 22-110) was 27-107 with a mean of 63 (Table V illustrates

Table V

Frequency Statistics for Narrative Transportation Scales

		TransScale#1	TransScale#2	TransScaleBoth
N	Valid	154	150	150
	Missing	63	67	67
Mean		33.07	30.75	63.81
Median		33.00	31.00	66.00
Mode		33.00	31.00	66.00
Std. Deviation		6.41	8.23	11.64

the frequency statistics for narrative transportation scales). Further, the combined scale was split at the response scale midpoint labeling those below the response scale midpoint low transportation and those above the response scale midpoint high transportation for testing of hypotheses (flaws in experimental design did not allow for a direct testing of transportation). The combined transportation dummy scale allowed us to examine the percentage of viewers experiencing high transportation (as shown in Table VI) revealing more than forty percent of viewers from both video segments in both experimental

Table VI

Low Transportation vs. High Transportation

		Frequency	Percent	Valid Percent
Valid	Low Transportation	83	38.2	59.7
	High Transportation	56	25.8	40.3
	Total	139	64.1	100
Missing	System	78	35.9	

conditions combined were highly transported. Additionally, looking at each condition and each video segment individually provides more detail about transportation into these brief narratives. As seen in Table VII the mean for viewers of the first TV ad was 33.51 while the mean for the first PSA was 32.54; the response scale midpoint of 33.00 indicates the first video segment in both conditions produced transportation responses near the midpoint (i.e., the break point between low and high transportation). Means for viewers of the second video segment were 27.70 and 34.52 for the ad and PSA respectively. The low mean for the second video segment in the ad condition is an

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anomaly, especially when compared to the other transportation means in this study, and it

will be further explored in the discussion section. With this breakdown to individual

Table VII

Transportation Means and Standard Deviations by Condition and Video Segment

Condition		TransScale#1	TransScale#2
Ads	Mean	33.51	27.70
	n	85	83
	Std. Deviation	5.63	7.45
PSAs	Mean	32.54	34.52
	n	69	67
	Std. Deviation	7.25	7.60
Total	Mean	33.07	30.75
	n	154	150
	Std. Deviation	6.41	8.23

video segments per condition it is more apparent viewers do experience transportation

when observing TV ads and PSAs.

As shown in Appendix B, the full distributions of transportation for these six

breakdowns are generally normal-shaped; however, a notable difference is seen in the

distribution for the second TV ad (see Appendix B, Figure B2). In this figure, a bimodal

pattern is apparent, wherein one set of respondents reported experiencing a low level of

transportation, and another set reported a noticeably higher level. Again, this anomalous

distribution provides further evidence that the second TV ad has produced a unique

pattern of transportation response, which will be further explored in the discussion

section.

These findings are moderately strong evidence transportation into brief narratives does occur and, thereby, support the contention that viewers of brief narratives (in this case TV ads and PSAs) experience narrative transportation which, under the right conditions, may impact attitudes, beliefs, and *values*.

Research Question 2

The second research question asks if viewers who have an affinity for watching more television are more likely to be transported than viewers without an affinity for television viewing. Television viewing habits were measured with two different scales: The five item Television Affinity Scale (TAS) developed by Rubin and Rubin (1982) and a four item Television Viewing Habits Scale (TVH) adapted from Shrum et al. (2005) with an additional six items created by experimenters (use of two scales was necessary because the television viewing habits scale was created, but not validated, by the experimenters). Experimental results indicate viewers with a strong drive for watching television, according to the TAS, are more likely to be transported than viewers less attracted to television $r_{(148)}=.21, p<.05$ (see Table VIII); and if we look at those who are highly transported the significance increases $r_{(137)}=.26, p<.01$ (see Table IX). The adapted and created television viewing habits scale (TVH) yielded non-significant results for transportation but was significantly correlated with the TAS $r_{(147)}=.56, p<.001$ (see Table VIII and Table IX) indicating, apparently, the TVH scale was equally successful with the TAS at measuring viewers who have a strong drive to consume television programming. Since further testing of both television viewing scales reveal high reliabilities (TAS alpha = .85; TVH alpha = .83) and a high correlation ($r_{(147)}=.56, p < .001$) between the two scales it appears both scales are measuring a similar concept and

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Table VIII

Correlations for TV Viewing Habits – TV Affinity – Narrative Transportation

		TVH	TAS	TransScaleBoth
TVViewingHabits	Pearson Correlation	1	.57***	.05
	Sig. (2-tailed)		<.001	.56
TVAffinityScale	Pearson Correlation	.57***	1	.21*
	Sig. (2-tailed)	<.001		.01
TransScaleBoth	Pearson Correlation	.05	.21*	1
	Sig. (2-tailed)	.56	.01	

*- p < .05; ** - p < .01; *** - p < .001

measuring it consistently, although, the television viewing habits scale failed to yield significant correlations with transportation while the television affinity scale was significantly correlated with transportation.

Table IX

Correlations for TV Viewing Habits – TV Affinity – Narrative Transportation High/Low

		TVH	TAS	TransScale H/L
TVViewingHabits	Pearson Correlation	1	.56***	.05
	Sig. (2-tailed)		<.001	.54
TVAffinityScale	Pearson Correlation	.56***	1	.26**
	Sig. (2-tailed)	<.001		.002
TransScale High/Low	Pearson Correlation	.05	.26**	1
	Sig. (2-tailed)	.54	.002	

*- p < .05; ** - p < .01; *** - p < .001

Hypotheses 1a and 1b

The first two hypotheses predict: H1a) viewers of TV ads will score higher in materialism than viewers of PSAs and H1b) viewers of PSAs will score higher in

altruism than viewers of TV ads respectively. To test these hypotheses it was necessary to look at each of the three subscales covered by the Material Values Scale (MVS): Success, Happiness, and Possessions as well as the MVS Total which combines all three; for altruism the scales created to measure altruism scores for those who Would Do an altruistic act, those who Have Done an altruistic act, and the Difference between the Would Do and Have Done groupings were examined. For materialism only one subscale, MVS-Happiness, yielded near-significant results between the TV ads condition (M=15.76) and the PSAs condition (M=14.77); this finding is near statistical significance ($F_{(1)}$=3.43, p=.06) as shown in Table X. Altruism produced similar results with only one

Table X

ANOVAs for Materialism and Altruism by Condition

	Ads		PSAs		Total		$F_{(1,142)}$	p
	M	SD	M	SD	M	SD		
MVS-Success	14.52	3.29	14.02	3.69	14.31	3.46	0.76	.39
MVS-Happiness	15.76	3.23	14.77	3.04	15.33	3.18	3.43[a]	.06
MVS-Possessions	15.22	2.71	15.16	2.86	15.19	2.77	.02	.90
MVS-Total	45.50	7.43	43.95	7.94	44.83	7.66	1.45[b]	.23
Altruism-Would Do	12.13	1.81	11.48	2.44	11.85	2.12	3.38[a]	.06
Altruism-Have Done	7.90	3.51	7.26	3.65	7.63	3.57	1.15	.29
Altruism-Difference	4.23	3.14	4.22	3.46	4.22	3.27	.00	.99

[a] - .05 < p < .10;   [b] - indicates results in hypothesized direction

scale, Altruism-Would Do, yielding near-significant results with the ads condition (M=12.13) actually surpassing the PSAs condition (M=11.48) and approaching significance ($F_{(1)}$=3.38, p=.06). All other subscales and scales measuring materialism

and altruism produced non-significant results when comparing the ads and PSAs conditions, including the MVS-Total subscale (see Table X for all results). These results, for the most part, do not offer support for H1a or H1b although with one subscale from each condition approaching significance one can say H1a receives partial support while findings for H1b appear to directly contradict the hypothesis. For the MVS-Total (M=45.50 ads; M=43.95 PSAs) the difference in the means was in the hypothesized direction, although non-significant. Even though ANOVA results failed to reach significant levels scale reliabilities were good for the materialism and altruism scales (as reported above in Table II).

Hypothesis 2

The second hypothesis predicted viewers paying more attention and those having a high need for cognition would be more likely to be transported than viewers paying less attention and those having a low need for cognition. Regression and ANOVA results support this hypothesis producing significant results. Correlations were significant for both attention and need for cognition (see Table XI) with transportation as the dependent variable and an ANOVA produced significant results ($F_{(2,140)}$=18.67, p<.001) for both

Table XI

Correlations for Narrative Transportation –Attention – Need for Cognition

		TRANS	ATTN	NFC
Correlations	Transportation	1	.45***	.14*
	Attention	.45***	1	.10
	Need for Cognition	.14*	.10	1
Sig. (1-tailed)	Transportation		<.001	.05
	Attention	.05		.12
	Need for Cognition	<.001	.12	

* - p < .05; ** - p < .01; *** - p < .001; *n* for all *r*'s = 143

predictors combined indicating that together they contribute a significant amount

(significant R^2 for the total equation) of variance predicting transportation as the

dependent variable (see Table XII). Further, the regression beta coefficients reveal that

attention is a significant predictor even when controlling for need for cognition at

$t_{(142)}=5.82, p<.001$, but need for cognition loses its significance $t_{(142)}=1.25, p=.21$ (also

see Table XII) when controlling for attention. As shown in the table, when holding

Table XII

Regression Predicting Narrative Transportation

Predictors	r	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Err.	Beta		
Attention	.45***	.65	.11	.44***	5.82	<.001
Need for Cognition	.14*	.12	.09	.10	1.25	.21
Total equation: $R^2 = .21$, Adj. $R^2 = .20$, $F_{(2,140)} = 18.67, p < .001$						

* - $p < .05$; ** - $p < .01$; *** - $p < .001$

need for cognition constant attention becomes the most significant variable predicting

narrative transportation. Above all, the regression model is a good fit with both

predictors, combined, accounting for a significant amount of variance in transportation

scores. Individually, both predictors are also are significantly correlated with

transportation (r scores—see Table XII) until controlling for attention and then need for

cognition loses significance. Overall, this regression model accounts for 21% of the

variance in narrative transportation scores ($R^2 = .21$) with attention being the strongest

predictor of narrative transportation while need for cognition is less significant in the

overall model. Reliabilities for the attention scale and need for cognition scale were high including all three combinations of the attention scale as shown above in Table IV.

Hypothesis 3

The third hypothesis in this study predicts narrative transportation will moderate the impact of value-laden brief narratives in each experimental condition so that an increase in transportation will lead to an increase in either materialism or altruism. Results give partial support to this hypothesis with materialism producing two near significant interactions with narrative transportation and one near-significant main effect for experimental condition while altruism produced one near-significant main effect for experimental condition.

A two-factor ANOVA reveals that condition and transportation have a very near-significant interaction in the predicted direction for the Materialism-Success subscale ($F_{(1,134)}$=3.74, p=0.55); these results can be seen in Table XIII and Figure 2.

Table XIII

Two-Factor ANOVA for Materialism—Success

		SS	Df	MS	F	p
Main Effects						
	Condition (Ads vs. PSAs)	5.21	1	5.21	0.44	.51
	Transportation (low vs. high)	0.32	1	0.32	0.03	.87
Interaction						
	Condition X Transportation	44.42	1	44.42	3.74[a]	.06
Error		1556.85	131	11.88		
Total		1604.33	134			

[a] - .05 < p < .10

This interaction indicates highly transported viewers of ads did have, near-significant, higher scores in the Materialism-Success subscale than did highly transported viewers of PSAs (M=15.32 for ads; M=13.71 for PSAs) while those who reported low transportation

Figure 2. Interaction Predicting Materialism-Success from Ads/PSAs Condition and Narrative Transportation.
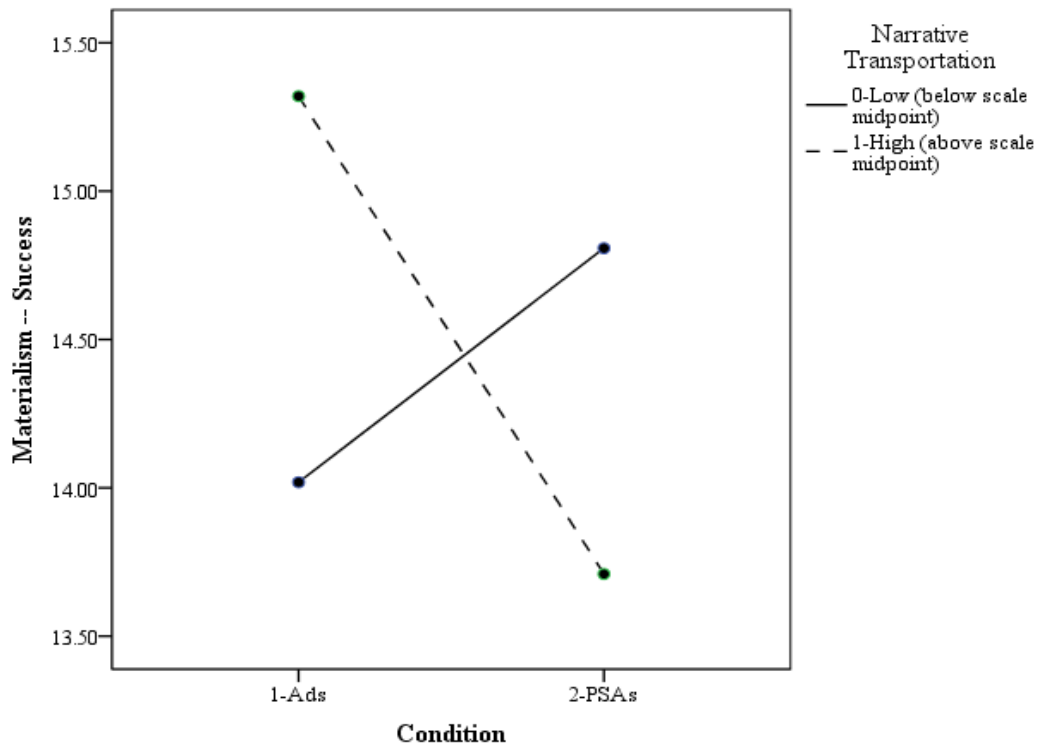
among viewers of ads had, near-significant, lower scores than their low transportation counterparts viewing PSAs (M=14.02 for ads; M=14.81 for PSAs). Neither of the main effects was significant. Because this result was only a near-significant interaction, in the predicted direction, partial support for this hypothesis is found.

Two-factor ANOVA results for Materialism-Happiness show a near-significant main effect for condition ($F_{(1,134)}$=3.21, p=.08) where TV ads had a mean of 15.86

compared to the PSAs mean of 14.84. The main effect for transportation was not significant, nor was the interaction of condition and transportation (see Table XIV); again, these results are near-significant in confirming the prediction and, therefore, offer partial support of this hypothesis.

Table XIV

Two-Factor ANOVA for Materialism—Happiness

		SS	df	MS	F	p
Main Effects						
	Condition (Ads vs. PSAs)	32.93	1	32.93	3.21[a]	.07
	Transportation (low vs. high)	.88	1	.88	.09	.77
Interaction						
	Condition X Transportation	9.75	1	9.75	.95	.331
Error		1343.86	131	10.26		
Total		1382.93	134			

[a] - $.05 < p < .10$

A two-factor ANOVA for Materialism-Possessions failed reach significance for any main effect or interaction. Among the materialism measures this is the only factor without at least near-significant results (see Table XV).

Table XV

Two-Factor ANOVA for Materialism—Possessions

		SS	df	MS	F	p
Main Effects						
	Condition (Ads vs. PSAs)	.30	1	.30	.04	.85
	Transportation (low vs. high)	.00	1	.00	.00	.99
Interaction						
	Condition X Transportation	10.43	1	10.43	1.30	.26
Error		1052.31	131	8.03		
Total		1062.86	134			

A two-factor ANOVA for the final measure of materialism, Materialism-Total, combining all three materialism subscales, has a near-significant interaction $(F_{(1,134)}=2.83, p=.09)$ as shown in Table XVI and Figure 3. This near-significant

Table XVI

Two-Factor ANOVA for Materialism—Total

		SS	*df*	*MS*	*F*	*p*
Main Effects						
	Condition (Ads vs. PSAs)	73.43	1	73.43	1.23	.27
	Transportation (low vs. high)	2.33	1	2.33	.04	.84
Interaction						
	Condition X Transportation	169.42	1	169.42	2.83[a]	.09
Error		7830.46	131	59.77		
Total		8051.88	134			

[a] - $.05 < p < .10$

interaction accounts for the full materialism scale (Materialism-Total) indicating highly transported viewers of ads, at near-significance, scored higher than those highly transported viewing PSAs (M=47.24-Ads; M=43.35-PSAs) while those experiencing low transportation viewing ads scored, at near-significance, lower than viewers of PSAs (M=44.62-Ads; M=45.42-PSAs). Another near-significant result lends further partial support to the hypothesis.

Figure 3. Interaction Predicting Materialism-Total from Ads/PSAs Condition and Narrative Transportation.
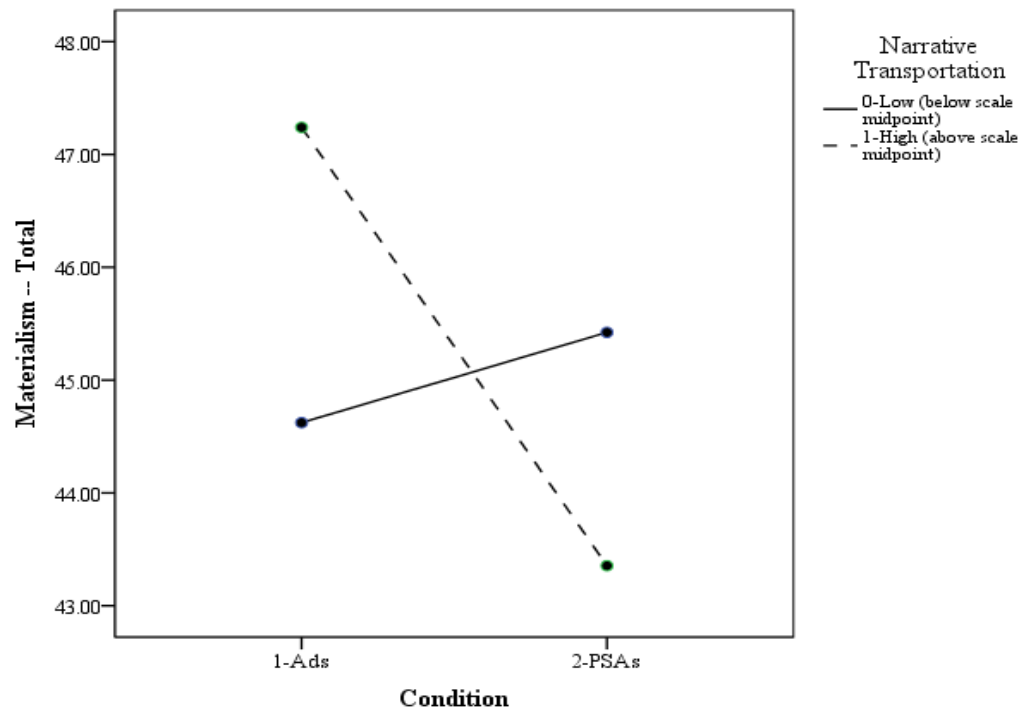
Two-factor ANOVA results for altruism produced one significant outcome, a significant main effect for condition for the Altruism-Would Do scale ($F_{(1,134)}$=4.14, p=.04) with an ads mean of 12.23 and a PSAs mean of 11.53 (see Table XVII). Unfortunately, this significant result is in direct opposition to the prediction that in the PSAs condition those more highly transported will score higher in altruism than their counterparts in the ads condition; here, it is found that the highly transported in the ads condition actually score higher in altruism than the PSAs group. Both the remaining altruism conditions (Altruism-Have Done, and Altruism-Difference) delivered non-significant results as reported in Tables XVIII and XIX respectively.

Table XVII

Two-Factor ANOVA for Altruism—Would Do

		SS	Df	MS	F	p
Main Effects						
	Condition (Ads vs. PSAs)	15.52	1	15.52	4.14*	.04
	Transportation (low vs. high)	9.05	1	9.05	2.41	.12
Interaction						
	Condition X Transportation	.52	1	.52	.14	.71
Error		491.62	131	3.75		
Total		512.96	134			

* - p < .05

Table XVIII

Two-Factor ANOVA for Altruism—Have Done

		SS	Df	MS	F	p
Main Effects						
	Condition (Ads vs. PSAs)	9.78	1	9.78	.79	.38
	Transportation (low vs. high)	.39	1	.39	.03	.86
Interaction						
	Condition X Transportation	2.12	1	2.12	.17	.68
Error		1632.23	131	12.46		
Total		1647.73	134			

Table XIX

Two-Factor ANOVA for Altruism—Difference

		SS	Df	MS	F	p
Main Effects						
	Condition (Ads vs. PSAs)	.66	1	.66	.06	.80
	Transportation (low vs. high)	13.19	1	13.19	1.26	.26
Interaction						
	Condition X Transportation	.54	1	.54	.05	.82
Error		1370.68	131	10.46		
Total		1385.02	134			

Table XX

Summary of Results for Research Questions and Hypotheses

	Research Questions / Hypotheses	Supported / Not Supported
RQ1	To what extent will viewers of TV ads and PSAs experience transportation?	N/A
RQ2	Will viewers with an affinity for watching television be more likely to be transported than viewers without an affinity for watching television?	Supported
H1a	Viewers of TV ads will show more materialism than viewers of PSAs.	Partially Supported
H1b	Viewers of PSAs will show more altruism than viewers of TV ads.	Not Supported
H2	Viewers who pay more attention and show a high need for cognition will be more likely to be transported than viewers who pay less attention and show a low need for cognition.	Supported
H3	Narrative transportation will moderate the impact of value-laden brief narratives on the relevant experimental conditions so that an increase in transportation will lead to an increase in impact (i.e. higher scores for materialism and altruism).	Partially Supported

CHAPTER VI

DISCUSSION

Summary of Results

This study extends and expands upon research examining the concept of narrative transportation. In particular, this study focuses on the role brief narratives might play in the narrative transportation experience and the impact these short narratives might have on the construction of social reality in relation to value systems.

Research Question 1. RQ1 asks to what extent will viewers of TV ads and PSAs experience transportation. The study results offer a strong indication viewers do experience transportation when watching brief narratives and, for those highly transported, the transportation experience could have impacts on value structures. Unfortunately, experimental design constraints prevented a direct test of transportation, but frequency scores from both experimental conditions provide a strong indication viewers were transported—some to a high degree—providing enough evidence to support a contention that viewers of brief narratives do experience narrative transportation. In fact, statistical analyses indicate slightly more than 40% of participants were highly transported. This fairly high rate of transportation appears even more remarkable when examining the individual video segments serving as stimulus materials. The first television commercial was Volkswagon Jetta—Big Day which had a transportation mean of 33.51 while the first PSA, Today Takes Action—Hunger Prevention, had a transportation mean of 32.54 and the second PSA, Fatherhood Involvement—

Cheerleader, had a transportation mean of 34.52. These scores are in stark contrast to the transportation mean of the second television commercial, Ikea Dog—Tidy Up, which only generated a mean of 27.70, a full $5 - 6$ point differential below the other means. Apparently, this television commercial solicited far less transportation than any of the other stimulus materials and certainly influenced overall results.

It could be the fact a dog was the central and only character in this ad firmly impacted the potential transportation experience for many participants[8]. This idea appears more realistic when looking at the other stimulus materials and see they all have humans as central characters with both female and male representations. A study by Hoorn and Konijn (2003) allows further exploration of this idea. Hoorn and Konijn developed the Perceiving and Experiencing Fictional Characters model (PEFiC) which details three cognitive phases occurring when a viewer observes a fictional character (FC): 1) the encoding phase where an FC is judged on ethics, aesthetics, and epistemics (realistic-unrealistic); 2) the comparison phase where personal relevance of the FC to the self, positive and negative valence, and similarities to self are noted; 3) and the response phase where appreciation of the FC is mediated by the complex interaction between involvement and distance where degree of involvement is relative to a simultaneous evaluation of distance based on encoding and comparison evaluations. This model offers a possible explanation for the failure of this ad to produce transportation. During the encoding and comparison phase an involvement link to the FC (the dog) may not have been possible for many of the viewers thereby limiting involvement which could have impacted transportation. Perhaps liking of dogs played a role but even for those who like dogs connecting to and becoming involved with a FC such as a dog provides limited

options for the judging of and comparisons of the FC based on personal relevance and similarities to self. Indeed, the bimodal distribution for transportation among those who viewed this ad (see Figure B2) may reflect a bifurcation of the sample based on degree of personal experience with human-pet bonding.

Further, when considering those who were highly transported (all those scoring above the response scale midpoint) another sharp contrast is seen: 51.7% of the participants in the PSAs condition (31 vs. 29) were highly transported while only 31.6% of the participants in the ad condition (25 vs. 54) were highly transported. Certainly, the statistical evidence reveals an anomaly which affected overall results for transportation, and, if aware of the potential for this to occur a different humorous television commercial could have been selected using human characters perhaps more likely to elicit rapport from participants.

Overall, these results do suggest brief narratives, as are found in both television commercials and public service announcements, can facilitate narrative transportation which, under the right conditions, may have impacts on the construction of social reality. Shapiro and Lang (1991) suggest there is a relationship between cognitive structures and psychophysiological responses to television stimulus that may help to blur the line between a fictional, mediated, event memory and real-life experience. Perhaps narrative transportation provides the bridge for mediated experience to elicit psychophysiological responses necessary for cognitive imprinting of mediated ideology. Thus, the cognitive obscuring of thoughts elicited through mediated events and thoughts springing forth from our conscious experience of reality may allow for the adoption of televised ideologies impacting attitudes, beliefs, and values. From this perspective, viewers experiencing

high states of narrative transportation may be more affected by televised experience providing fertile ground for influencing social reality construction.

Research Question 2. RQ2 asks if viewers who have more affinity for watching television will be more likely to be transported than viewers without an affinity for watching television. Study results indicate those viewers with an affinity for television are, indeed, more likely to be transported than viewers without an affinity for television; and, for highly transported viewers, the relationship increases in significance. This result stands in lieu of cultivation theory's "heavy viewers," the suggestion those who tend to watch more television will be more likely to cultivate the images and ideology contained in television programming, understanding those with an affinity for television will be inclined to watch more television, and be more attracted and connected to television viewing. Further, this idea is cemented by results for the ten-item television viewing habits scale, created by experimenters (four items adapted from Shrum et al., 2005), which, although not significantly correlated with transportation, was significantly correlated with the television affinity scale. This adapted and constructed scale is more closely aligned with cultivation type television viewing measures. The television viewing habits scale attempted to tap into viewing habits unaccounted for by traditional measures such as 'hours spent watching television daily' and 'how many hours were spent watching television yesterday.' This scale, with refinement and validation, may have a place in future research given its highly significant correlation with the television affinity scale ($r_{(147)}=.56, p < .001$) and solid reliability (alpha = .83).

Hypothesis 1a. H1a states viewers of TV ads will show more materialism than viewers of PSAs. Considering results produced one *near*-significant ANOVA for the

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materialism-happiness subscale, with the materialism-total scale *approaching near-significance* in the hypothesized direction, this hypothesis receives partial support. Materialism is a touchy subject—most people would not think of themselves as materialistic and may guard against presenting as someone placing a high value on material prosperity. Perhaps socially desirable responding played a role in answers to scale questions.

The material values scale actually consists of three subscales with each subscale representing different aspects of materialism. The happiness subscale provides what might possibly be the most socially-accepted means of expressing the desire for accumulating more material goods with questions like "My life would be better if I could afford to buy more things" and "My life would be better if I owned certain things I don't have." Most people can relate to having limited purchasing power in a time when the range goods available for potential purchase seems to be increasing exponentially while the necessity of owning numerous 'things' infringes more and more upon our daily lives. Certainly, most of us can agree, and it would be socially-accepted, our lives would improve if we could afford to purchase things we don't have, or things we need, or want, or, for that matter, purchasing indiscriminately without financial repercussions. Unfortunately for most, household budgets, financial obligations, and long-term financial planning limit the amount of disposable income available. From this standpoint, it may not seem as surprising the happiness subscale reached near-significance because it can be viewed from a perspective of needs in an ever-increasing technologically advanced society.

Hypothesis 1b. H1b states viewers of PSAs will show more altruism than viewers of ads. Experimental results for one measure of altruism, the altruism would-do scale (those individuals who would-do an altruistic act), actually reached *near*-significance in the opposite direction of this hypothesis indicating viewers of ads scored higher in this altruism measure than viewers of PSAs. This hypothesis receives no support and proves to be a complete contradiction to the logic of this study. As with H1a it could be socially desirable responding played a role, but that is a hard sell considering altruism is quite possibly a socially-desirable personality trait! Perhaps, by some random chance, the most altruistic individuals in this sample ended up in the ad condition; but, what is more likely, especially considering the result was only *near*-significant, is that most people may indeed have altruistic tendencies. This is the conclusion Smith (2003) draws in his report on the National Altruism Study suggesting "empathic feelings, altruistic values, and helping behaviors are all common" (p. 13) in contemporary American society. Lack of significant results for altruism could be due to the fact that, in general, most people would-do and have-done an altruistic act if and when presented the opportunity.

It also stands to reason PSAs may not be a symbol of altruism and therefore may not have the intended effect conceptualized in this study. Further, and another potential conceptual breakdown, it may be altruism is not the best fit conceptually when opposed to materialism. First, altruism may not truly represent a measure opposite of materialism. After all, altruism is more centered on thinking and acting selflessly in the interest of others, while materialism centers on an attachment and overarching interest in material things. Second, basic altruistic behaviors may be so common measuring the concept may

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lead to skewed results confounding overall data. Ultimately, altruism appeared to be a good fit for this experiment notwithstanding the mixed results; future research of this nature could try to find a concept more directly opposed to materialism.

General discussion H1a and H1b. Another construct may have played a role in results for both of these related hypotheses: Psychological reactance. Hong and Faedda (1996) conceptualize psychological reactance as a personality trait aroused by threats to freedom causing people to take resistance action. This theory can help researchers understand and explain a variety of human behaviors including resistance to social influence like that which may be aroused when being exposed TV ads or PSAs. Once psychological reactance is aroused, the person reacts as if some real threat to personal freedom has occurred taking evasive action to restore their sense of freedom. It's quite possible being exposed to TV ads or PSAs followed by a series of personal questions involving socially sensitive subjects may have aroused psychological reactance in study participants. More specifically, being shown altruistic behavior with the suggestion one should engage in this kind of behavior may have caused a psychological reactance to resist the suggested behavior. A similar reaction may have been triggered from the suggestion to engage in materialistic behavior. Future research should incorporate measures to control for the potential of psychological reactance.

Scale length may have also been a variable impacting these results. Both the materialism scale and altruism scale contained over ten items (MVS-15 items; SRAS-14 items) which could have played a role in participant responses following brief narrative presentations. The rationalization is simple: Short attention spans might require short response scales. Live action video segments stimulate viewers who then have to return to

the task of answering questions—the briefer the scale the more likely experimenters may capture the emotional and cognitive experience of the participant. In this study the stimulus materials and relevant scales were employed after a protracted questionnaire covering control measures and other important data. Future research should seek to collect control and demographic data a week prior to implementing experimental stimulus.

Hypothesis 2. H2 looked at on-line processing of the video segments claiming viewers who pay more attention and have a high need for cognition will be more likely to be transported than viewers paying less attention with a low need for cognition. This hypothesis found robust, although not perfect, support. Second-order cultivation effects happen during the cognitive processing of a stimulus (Bilandzic & Busselle, 2008; Hastie & Park, 1986; Potter, 1991; Shrum & Lee, 2012; Winter & Uleman, 1984; Yang & Oliver, 2010) and therefore require attention and cognitive engagement. Regression analysis with attention and need for cognition as predictors of narrative transportation produced significant results indicating both attention and need for cognition accounted for a significant amount of variance in narrative transportation scores. When controlling for need for cognition vs. attention and vice-versa, attention maintained a highly significant relationship with narrative transportation while need for cognition was rendered non-significant. So, attention is a significant predictor of narrative transportation and when coupled with need for cognition the strength of this prediction increases. This result supports a contention that, for many of those who are transported, cognitive processes are engaged, and, once activated, these processes create opportunities for cognitive imprinting. Cognitive imprinting of information obtained through narrative

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transportation experiences may have the potential to influence adoption of values and values judgments induced through the evocative psychophysiological experience of narrative transportation.

Although need for cognition loses some of its predictive power when controlling for attention it still contributes to the prediction of narrative transportation, and, it could be argued, scale length of the need for cognition measure plays a role in analysis outcomes. When compared to the five-item attention measure the eighteen-item need for cognition measure may be too long to be as effective as it once was due to technological advances that impact attention spans. The move to capture ever-shrinking attention spans can be seen in modern film, music videos, internet advertising and communications, social media, television, and even mobile communication devices. All forms of media communication are deeply entrenched in the battle to capture the shrinking attention span of modern society. As argued above (materialism and altruism measures) communication researchers may soon have to address a need for brief scales that can better capture short attention spans to measure experienced phenomena.

Hypothesis 3. H3 predicts narrative transportation will have a moderating effect on value-laden brief narratives (TV ads or PSAs) so that higher transportation scores will lead to higher scores for materialism or altruism dependent on experimental condition. This hypothesis is partially supported by three near-significant findings for materialism in the TV ads condition while results for altruism from the PSAs condition produced one near-significant finding though in direct opposition to the hypothesis. The near-significant interaction for materialism subscale 'success' and the 'total' materialism (sum of the three subscales) scale plus a near-significant main-effect for materialism subscale

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'happiness' provides partial evidence that narrative transportation may influence materialistic thoughts, attitudes, beliefs, and, quite possibly, values for those who experience transportation. Further, because materialism 'possessions' was the only materialism measure without at least near-significant findings, it appears beneficial to break the MVS into its subscale components for analysis. If considering the anomaly of video segment #2 in the TV ads condition (as discussed above) and its impact on narrative transportation scores, and, therefore, impact on H3, one can speculate these near-significant effects would have also been affected—perhaps further in favor of this hypothesis? Only future research, with enhanced control of experimental conditions and stimulus materials, will bear-out that possibility.

The near-significant main-effect found for narrative transportation and altruism actually revealed transported viewers of TV ads scored higher than viewers of PSAs in altruism—the direct opposite effect of this hypothesis. Maybe this is due to socially desirable responding for those in the TV ads condition (materialism) or psychological reactance from those in the PSAs condition (altruism), or maybe the problem stems from the concept of altruism in general; as discussed above altruistic actions might be so common as to render it a difficult concept to measure experimentally. Nevertheless, study findings were in opposition of hypotheses for altruism.

General Discussion

These results offer some full and some partial support of research questions and experimental hypotheses contributing information to on-going research in narrative transportation and cultivation theory. Narrative transportation into brief narratives has been modestly confirmed and some second-order cultivation effects have been found.

Additionally, this study adds to literature examining values such as materialism and altruism as well as increasing information in advertising research and values research in general. Advertisers already understand and use the power of drama and humor to sell products and now more is known about the potential for the short narratives typical of television advertising to elicit a transportation experience which may allow for cognitive imprinting of the advertised message. The power of emotionally charged narratives presents unique opportunities for transportation and, once transported, viewers of emotionally charged narratives may be more likely to cognitively imprint information contained therein. Further confirmation of this information not only benefits advertisers seeking new ways to market products it also benefits those who produce public service announcements in their on-going quest to influence viewers and encourage pro-social actions. The results of this study also support the contention that among those who pay closer attention to media presentations the possibility of being transported into the presentation increases; this is true for those who have a need for cognition as well. The findings provide further evidence that viewers with an affinity for watching television are more likely to experience transportation which could lead to cultivation of the ideologies disseminated in television content. Overall, this study has added some new insights and reaffirmed prior knowledge in various literatures in social science and communication research.

This study advances research looking at psychological and cognitive processes that may be at play during the viewing of mediated communication. The findings of this study are in line with previous research (Reinhart & Anker, 2012; Shrum, Burroughs, & Rindfleisch, 2005; Shrum et al., 2011) which has implications for study of Cultivation

Theory. Specifically, it appears second-order cultivation effects may play a significant role in the process of cognitive media effects. Future research should consider the exploration of these second-order effects knowing small, first-order, memory based effects are happening to one degree or another, but a better understanding of the rich environment of spontaneous processing occurring during a viewing experience may hold the key to unlocking the mystery of how experiential elements interact with both conscious and unconscious processes in the construction of social reality.

This study also advances research on narrative transportation by further confirming (Reinhart & Anker, 2012) the role brief narratives may play in transportation processes. Knowing television commercials are capable of transporting viewers within a span of as little as 30 seconds will have implications for the advertising sector of communication research. Equally important, for communication campaigns, such as those producing PSAs among others, understanding the effects of and possibilities for transportation to occur during the viewing of a brief narrative presentation provides fertile ground for the creative development of influential, persuasive messages built into a brief narrative. Understanding that transportation effects occur during brief exposures also informs the persuasion literature (Perloff, 2014) and opens up more questions about cognitive processes (attention and need for cognition) at work, or working below consciousness, that may play a unique role in the way information is imprinted cognitively. Future research could try to discover the underpinnings of subconscious processes at play during a transportation experience and how they mediate or moderate the persuasive potential of brief narratives. Overall, narrative transportation appears to

have the potential to be an impactful phenomenon whether the narrative is brief or lengthy.

Limitations

This study could have been improved in a number of ways that may have impacted the results. First, the stimulus materials may have limited the potential for transportation, and future research should be mindful of potential problems (as discussed above) when selecting stimulus materials. Also, more control over viewing conditions may have yielded higher transportation scores especially if large screens and other factors were used to enhance viewer experience. Perhaps a study combining presence and transportation measures could yield fruitful information about how the quality of the viewing experience affects transportation. A direct test of transportation with a control group would have contributed greatly to this study and may have provided the opportunity for broader conclusions about transportation and brief narratives. The near-significant results of this study indicate there are errors in experimental design and implementation that need to be examined and corrected. Even small changes in experimental design and implementation have the potential to alter study findings and future research should invest ample time in the process of experimental design.

A number of additional limitations need to be considered. The convenience sample of a student population limits forecasting of results to a truly random, general population. Also, students used in this sample were those enrolled in introductory communication courses the majority of whom are very young (mean age of 21.87 years and 83.4% aged 24 years or less) which further limits generalization of results to an at-large population due to age representation.

Another limitation is the online administration of this experiment. Many factors could interfere with how participants responded to stimulus materials in this study. If respondents used a computer to complete the study the computer or laptop monitor may have had poor resolution or a small screen size or any number of other factors that may have disrupted the experience and interaction with stimulus materials. Online administration means any interruption of internet service could disrupt participants and affect their responses. Some respondents may have used mobile phones or other mobile devices to complete this study providing yet another factor potentially confounding results due to participant interaction with the device. Interruption from phone calls, social interactions, television watching, toggling between windows on the computer, or any number of other events may have interfered with recreating how one may experience TV ads and PSAs when viewed spontaneously as they naturally occur. Certainly, laboratory administration would still contend some of these same potential limiting factors but experimenters would have more control over the environment where the study takes place. Ultimately, most experiments are limited due to laboratory settings, including those administered online, but online administration allows for the possibility participants may experience media stimulus materials in the same relaxed environment that they might use to view entertainment media—which may actually provide a benefit to online administration that, for the most part, cannot be duplicated in laboratory. So, though online administration may be a limiting factor in this study perhaps future research can discover whether it has benefits not found in laboratory settings. This could prove useful information for researchers as they plan administration of experiments.

Demand characteristics present another potential limitation for this study. When study participants respond to socially sensitive questions about themselves the possibility exists they could respond in a socially desirable manner to protect either their own *self-image* as they *see* themselves or to protect themselves from how unknown others may see them based upon their responses. Even when anonymity is guaranteed (as in this study) it could be people may respond in a socially desirable way. Materialism and altruism measures may be especially susceptible to socially desirable responses due to undertones associated with their behaviors; also, television viewing habits as well as other measures could be influenced because of how different measures reflect upon the individual responding.

Another demand characteristic involves participants responding to questions in a way that might help or hinder the researcher. Some people may become aware of experimental goals and try to help the researchers achieve a desirable outcome while others may want to sabotage an experiment to derail experimental objectives. This could happen even when participants are unaware of research intentions because they desire to be helpful through involvement in a study. Unfortunately, there is no way to completely prevent this from occurring although clever experimental design may prevent the overall goals of a study from being revealed and thereby help guard against participants purposely responding in either beneficial or detrimental ways.

An important limitation to this study concerns the stimulus materials. Matching television commercials with public service announcements was a difficult task and did not allow for perfect matching of conditions. Obviously, it was not possible to present PSAs exactly like the TV ads because advertisements are inherently different than public

service announcements. Also, matching a dramatic ad with an equally dramatic PSA was difficult because drama level is relative to individual experience; the same could be said for the humorous ad and PSA. For this reason and others, TV ads and PSAs are not exactly comparable. This experiment attempted to find the most closely matched stimulus materials possible knowing the difference between the styles and intentions associated with television commercials and public service announcements. Future research could focus on a broader exploration of potential stimulus materials.

Future Directions

Future social science research could greatly benefit from extending upon some of the findings in this study. A direct test of narrative transportation into brief narratives would provide more evidence of the transportation experience occurring during short narratives, such as those found in television commercials, and this would provide a deeper understanding of how television advertising, as well as online advertising, is impacting a viewers construction of personal reality. Coupling that with an examination of second-order cultivation effects might yield interesting findings helping to further explain how cognitive processes that happen during mediated experiences may influence perceiver thoughts thereby having potential impacts on attitudes, beliefs, and values. Even values research, in particular, could be further advanced using this study to spur new research directions whether looking specifically at materialism or altruism or any other value. Another research agenda that might be fruitful to pursue would be the examination and refinement of the television viewing habits scale (adapted and created by experimenters) which could prove useful in social science research if validated through rigorous testing in scale validation trials. In general, this study has further

expanded on several research topics helping to create new starting points for future research.

Additionally, enough data were collected during this study to provide opportunities for future analysis in a number of directions. First, it would be interesting to see how some demographic information impacts narrative transportation and materialism scores and how it may affect study findings. Income level is one demographic which could have an interesting effect on materialism measures and possibly altruism measures as well. Splitting the male and female population would provide more information about any compelling differences in how men and women experience the sort of mediated communication used in this study. Even political affiliation may provide interesting twists in study outcomes.

Second, a number of social science measurement scales were included in the study and these scales provide much fertile ground for future additional analysis. The psychological reactance measure could produce findings to bolster any significant or near-significant results of this study. Analyzing scores for socially desirable responding could change overall study results and thus becomes an important analytical step that needs to be explored. Looking at the baseline values expressed in the Short Schwartz Values Survey (Lindeman & Verkasalo, 2005) and how they interact with other variables in this study may provide added insights into experimental results. Measures of sense of humor and sensation seeking are also available for further investigation. As is apparent by this listing, many additional analyses from measurement data included in this study could be pursued to better understand experimental outcomes.

Finally, experimenters should actively pursue not only the additional analyses suggested above, but also develop and design future experiments to further substantiate results touched upon in this study including: A direct test of narrative transportation into brief narratives; developing stimulus materials that can directly test how values may be impacted by mediated communication; creating and validating scales that accurately capture level of involvement with mediated (television, computer, tablet, mobile device, etc.) entertainment communications; and develop a method of testing online vs. laboratory administration of experiments.

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APPENDIX A

INSTRUMENT

Television Viewing Study

Informed Consent

Cleveland State University

Television Segments
Informed Consent Statement

Thank you for taking the time to participate in this study. Graduate student Michael Quillin and faculty advisor Dr. Kim Neuendorf of the School of Communication at Cleveland State University are collecting data on ways in which viewers respond to moving image content. You will be asked to fill out the first section of this survey prior to your viewing two short TV segments; after you have viewed the two video segments you will fill out another series of questions to complete the survey. Included in this survey are general questions about your background, your typical media habits, and your outlook on life as well as more detailed questions concerning your thoughts, feelings, self-knowledge, and perceptions of the world. Your responses will be saved electronically.

Please answer all questions to the best of your ability. You are not being judged in any way by your answers; and as your responses are confidential, please be as truthful and honest as possible. Your participation is voluntary, and you may choose not to participate, decline to answer any question, or exit this questionnaire at any time without penalty. The study should take about 25 minutes to complete. There are no foreseeable risks in participating in this study beyond those of daily living. If you have any questions, feel free to contact Prof. Kim Neuendorf at (216) 687-3994.

At the end of the online survey, Cleveland State University students will be directed to a separate page that will collect information that will allow credit or extra credit to be given to participating students. This information will not be linked in any way to your responses.

Thank you.

If you have any questions about your rights as a research subject, you can contact Cleveland State University's Institutional Review Board at (216) 687-3630.

*1. Clicking the box below will confirm that you are 18 years or older and have read and understood this consent statement. Clicking will constitute your informed consent to participate in the study as outlined above.

◯ I agree to continue.

Television Viewing Study

Media Habits

The following section contains questions concerning media access.

For the purpose of this section, please consider web viewing of Television content to be equivalent to, "TV," or, "TV shows."

*2. What are your three favorite TV shows of all time?

1.
2.
3.

*3. What are the three TV shows you currently watch most often?

1.
2.
3.

*4. What are the three TV or cable networks you currently watch most often?

1.
2.
3.

*5. What are your three favorite movies of all time?

1.
2.
3.

*6. On average, how much time do you spend each day viewing TV shows and movies:

On a Television?---------------------------------Enter how many hours per day--

On a Computer?---------------------------------Enter how many hours per day--

On a Mobile Device (Smartphone/Tablet)?---Enter how many hours per day--

*7. When you do watch TV or Movies, do you prefer:

○ Live programming (as it happens)

○ DVR/TIVO (recorded for later viewing)

○ Pre-recorded media (DVD/Blu-ray)

○ Streaming (online viewing)

○ No preference

Television Viewing Study

✱8. Do you subscribe to any of the following? (Check all that apply.)

☐ Cable TV

☐ Satellite/Dish TV

☐ Netflix

☐ Amazon Prime

☐ Hulu

☐ Other (please specify)

[   ]

✱9. Do you have TiVo or other Digital Video Recorder (DVR) capability in your home?

○ YES

○ NO

○ UNSURE

Media Habits: Time Allocation

*10. The following section concerns television viewing habits and should be answered based on a scale ranging from "strongly agree" to "strongly disagree" and the bubbles in-between indicate your level of agreement or disagreement with how this question aligns with your personal television viewing habits.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I typically watch more than 4-hours of television a day.	○	○	○	○	○
I often watch television on weekends.	○	○	○	○	○
I typically watch less than 4-hours of television a day.	○	○	○	○	○
I like to watch my favorite television programs on a regular basis.	○	○	○	○	○
I am often doing other things (besides sitting and watching) while the television is on.	○	○	○	○	○
I often get up and do other things while watching television.	○	○	○	○	○
I spend time watching television everyday.	○	○	○	○	○
One of the first things I do when I get home in the evening is turn on the television.	○	○	○	○	○
I hardly ever watch television.	○	○	○	○	○
Once I turn the television on it usually stays on until I go to bed.	○	○	○	○	○

*11. Here are some statements people may make about themselves (or about television). For each statement please click the bubble that best expresses your own feelings.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
Watching television is one of the more important things I do each day.	○	○	○	○	○
If the television set wasn't working, I would really miss it.	○	○	○	○	○
Watching television is very important in my life.	○	○	○	○	○
I could easily do without television for several days.	○	○	○	○	○
I would feel lost without television.	○	○	○	○	○

Television Viewing Study

Social Awareness

*12. This section concerns self-awareness and self-knowledge; after reading each statement select "true" if the statement describes you or 'false' if the statement does not describe you.

|	False	True
I never hesitate to help someone in case of emergency.	◯	◯
During arguments I always stay objective and matter-of-fact.	◯	◯
There has been at least one occasion when I failed to return an item that I borrowed.	◯	◯
I always admit my mistakes openly and face the potential negative consequences.	◯	◯
I take out my bad moods on others now and then.	◯	◯
In conversations I always listen attentively and let others finish their sentences.	◯	◯
I always eat a healthy diet.	◯	◯
When I have made a promise, I keep it--no ifs, ands or buts.	◯	◯
I always accept others' opinions, even when they don't agree with my own.	◯	◯
I always stay friendly and courteous with other people, even when I am stressed out.	◯	◯
I sometimes litter.	◯	◯
In traffic I am always polite and considerate of others.	◯	◯
I would never live off other people.	◯	◯
There has been an occasion when I took advantage of someone else.	◯	◯
I occasionally speak badly of others behind their back.	◯	◯
Sometimes I only help because I expect something in return.	◯	◯

Perceptions about Mental Activity

*13. This section concerns perceptions about mental activities; please indicate your level of agreement or disagreement with the following statements.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I would prefer complex to simple problems.	○	○	○	○	○
I prefer to think about small, daily projects to long term ones.	○	○	○	○	○
I only think as hard as I have to.	○	○	○	○	○
Thinking is not my idea of fun.	○	○	○	○	○
I like tasks that require little thought once I've learned them.	○	○	○	○	○
I find satisfaction in deliberating hard and for long hours.	○	○	○	○	○
I like to have the responsibility of handling a situation that requires a lot of thinking.	○	○	○	○	○
I would rather do something requiring little thought than something that challenges my thinking abilities.	○	○	○	○	○
I try to anticipate and avoid situations where I will have to think in depth about something.	○	○	○	○	○

*14. Perceptions about mental activities continued...

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
The idea of relying on thought to make my way to the top appeals to me.	○	○	○	○	○
It's enough for me that something gets the job done; I don't care how or why it works.	○	○	○	○	○
I feel relief rather than satisfaction after completing a task that required a lot of mental effort.	○	○	○	○	○
Learning new ways to think doesn't excite me very much.	○	○	○	○	○
I usually end up deliberating about issues even when they do not affect me personally.	○	○	○	○	○
I prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.	○	○	○	○	○
I really enjoy a task that involves coming up with new solutions to problems.	○	○	○	○	○
I prefer my life to be filled with puzzles that I must solve.	○	○	○	○	○
The notion of thinking abstractly is appealing to me.	○	○	○	○	○

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Television Viewing Study

Expressed Values

✳15. Rate the importance of the following values as a life-guiding principle for you.

	opposed to my principles	not important			important				of supreme importance
Benevolence (helpfulness, honesty, forgiveness, loyalty, responsibility).	○	○	○	○	○	○	○	○	○
Stimulation (daring, a varied and challenging life, an exciting life).	○	○	○	○	○	○	○	○	○
Hedonism (gratification of desires, enjoyment in life, self-indulgence).	○	○	○	○	○	○	○	○	○
Power (social power, authority, wealth).	○	○	○	○	○	○	○	○	○
Universalism (broad-mindedness, beauty of nature and arts, social injustice, a world at peace, equality, wisdom, unity with nature, environmental protection).	○	○	○	○	○	○	○	○	○
Self-direction (creativity, freedom, curiosity, independence, choosing one's own goals).	○	○	○	○	○	○	○	○	○
Tradition (respect for tradition, humbleness, accepting one's portion in life, devotion, modesty).	○	○	○	○	○	○	○	○	○
Conformity (obedience, honoring parents and elders, self-discipline, politeness).	○	○	○	○	○	○	○	○	○
Security (national security, family security, social order, cleanliness, reciprocation of favors).	○	○	○	○	○	○	○	○	○
Achievement (success, capability, ambition, influence on people and events).	○	○	○	○	○	○	○	○	○

Television Viewing Study

Responses to Freedom of Choice

*16. This section concerns cognitive responses to freedom of choice.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
Advice and recommendations induce me to do just the opposite.	◯	◯	◯	◯	◯
When someone forces me to do something, I feel like doing the opposite.	◯	◯	◯	◯	◯
I become angry when my freedom of choice is restricted.	◯	◯	◯	◯	◯
Regulations trigger a sense of resistance in me.	◯	◯	◯	◯	◯
I consider advice from others to be an intrusion.	◯	◯	◯	◯	◯
When something is prohibited, I usually think "that's exactly what I am going to do."	◯	◯	◯	◯	◯
It makes me angry when another person is held up as a model for me to follow.	◯	◯	◯	◯	◯
It irritates me when someone points out things which are obvious to me.	◯	◯	◯	◯	◯
I become frustrated when I am unable to make free and independent decisions.	◯	◯	◯	◯	◯
I find contradicting others stimulating.	◯	◯	◯	◯	◯
I resist the attempts of others to influence me.	◯	◯	◯	◯	◯

Television Viewing Study

Sense of Humor

＊17. This section concerns your sense of humor. Please indicate your level of agreement or disagreement with each statement.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I think incongruity is funny (i.e., when incompatible elements are put together).	○	○	○	○	○
I like humor that is shared by a group.	○	○	○	○	○
I like humor that puts down arrogant people.	○	○	○	○	○
I think it's funny when things are combined in unexpected ways.	○	○	○	○	○
I like 'inside' jokes (jokes only certain people 'get').	○	○	○	○	○
I like humor about death.	○	○	○	○	○
I like gross-out humor.	○	○	○	○	○
When something happens that is a "one in a million" occurrence, I find it funny.	○	○	○	○	○
I think it's funny when other people actually get hurt.	○	○	○	○	○
I like dark comedy.	○	○	○	○	○
I find it amusing when others make reference to things I'm really familiar with.	○	○	○	○	○
I like humor that puts down other racial or ethnic groups.	○	○	○	○	○
Unlikely events seem funny.	○	○	○	○	○
I like humor that puts down stupid people.	○	○	○	○	○
I find it humorous when I explore common knowledge or experiences with others.	○	○	○	○	○
I enjoy humor that criticizes society.	○	○	○	○	○

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Television Viewing Study

Personal Action Preferences

❋18. This section concerns personal action preferences; please indicate your level of agreement or disagreement with the following statements.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I would love to have new and exciting experiences, even if they are illegal.	◯	◯	◯	◯	◯
I get restless when I spend too much time at home.	◯	◯	◯	◯	◯
I would like to explore strange places.	◯	◯	◯	◯	◯
I like wild parties.	◯	◯	◯	◯	◯
I would like to try bungee jumping.	◯	◯	◯	◯	◯
I like to do frightening things.	◯	◯	◯	◯	◯
I would like to take off on a trip with no pre-planned routes or timetables.	◯	◯	◯	◯	◯
I prefer friends who are excitingly unpredictable.	◯	◯	◯	◯	◯

Television Viewing Study

Video Segment 1

Please watch the YouTube video below by pressing play on the screen. After viewing this video proceed to the next page by selecting the "I have viewed the video" button just below the screen.
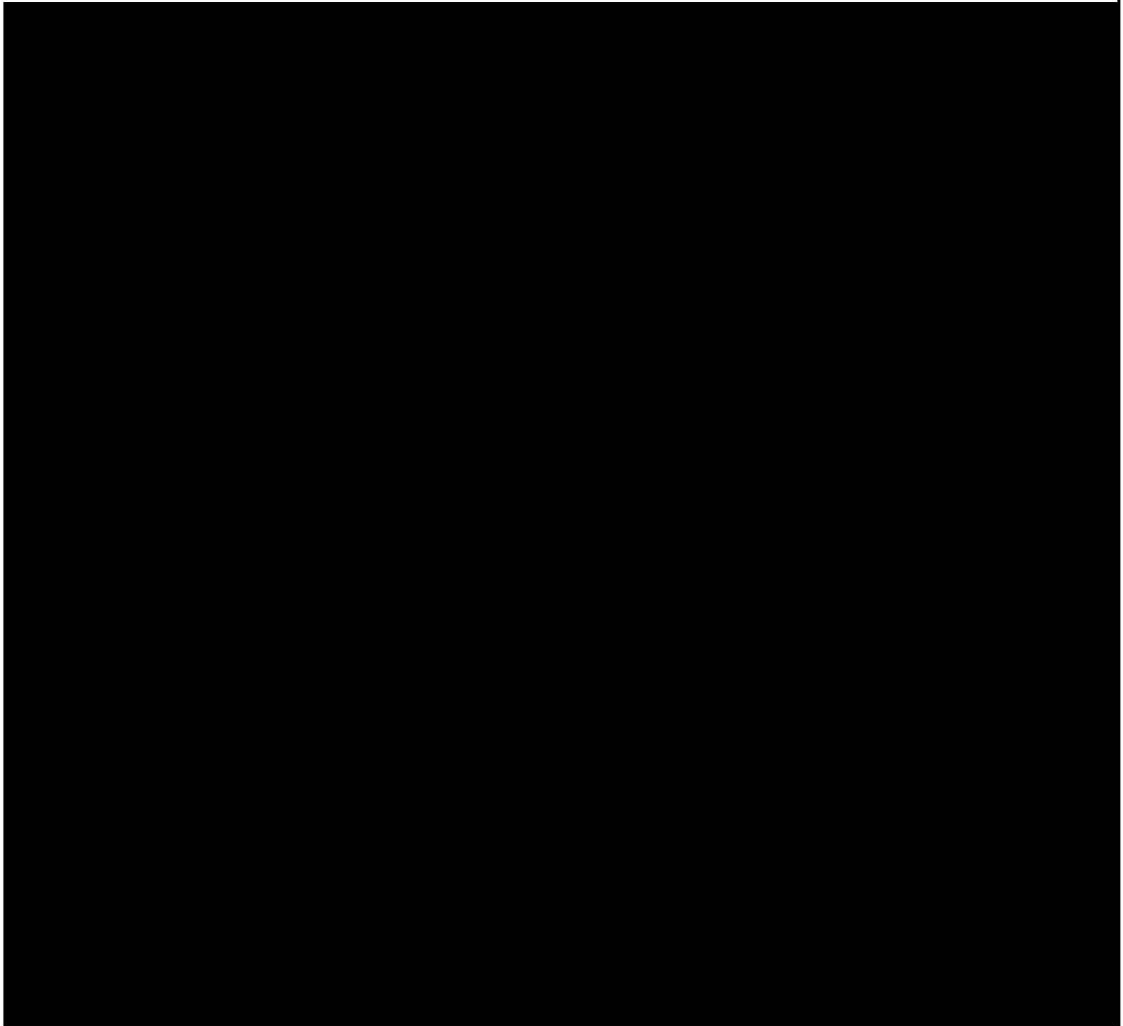
＊19. Click the button below to proceed to the next page.

◯ I have viewed the video

Television Viewing Study

Responses to Video Segment 1

✱20. For the following statements, indicate your response to the television segment—i.e., the story line of the segment, by selecting the most appropriate response from "not at all" to "very much" including the varying levels in-between.

	not at all				very much
"I could picture myself in the scene of the events taking place in the segment."	◯	◯	◯	◯	◯
"I found my mind wandering while viewing the segment."	◯	◯	◯	◯	◯
"I was mentally involved in the segment while watching."	◯	◯	◯	◯	◯
"While I was watching the segment, I could easily picture the events in it taking place."	◯	◯	◯	◯	◯
"After the segment ended, I found it easy to put it out of my mind."	◯	◯	◯	◯	◯
"I found myself thinking of ways the segment could have turned out differently."	◯	◯	◯	◯	◯
"I wanted to see how the segment ended."	◯	◯	◯	◯	◯
"The segment affected me emotionally."	◯	◯	◯	◯	◯
"The events in the segment have changed my life."	◯	◯	◯	◯	◯
"While I was watching the segment, activity going on in the room around me was on my mind."	◯	◯	◯	◯	◯
"The events in the segment are relevant to my everyday life."	◯	◯	◯	◯	◯

Television Viewing Study

Attention to Video Segment 1

This section concerns your attention to the short video segment.

✱21. To the best of your ability please rate the amount of attention you were able to give the video segment you have viewed.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I was listening carefully while I was watching the two video segments.	○	○	○	○	○
I missed some of what was happening in the two video segments.	○	○	○	○	○
I was paying close attention while I was watching the two video segments.	○	○	○	○	○
My mind was wandering while I was watching the two video segments.	○	○	○	○	○
I was thinking about something else while I was watching the two video segments.	○	○	○	○	○

Television Viewing Study

Pop-up Advertisements

*22. Did this video have a pop-up advertisement?

○ no

○ yes

Television Viewing Study

Pop-up Advertisement

*23. Did the pop-up advertisement interfere with your viewing of the video?

◯ no

◯ yes

Television Viewing Study

Video Viewing

✱24. Did this video seem...

◯ longer than the typical TV commercial

◯ shorter than the typical TV commercial

◯ about the same length as the typical TV commercial

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Television Viewing Study

Video Segment 2

Please watch the YouTube video below by pressing play on the screen. After viewing this video proceed to the next page by selecting the "I have viewed the video" button just below the screen.
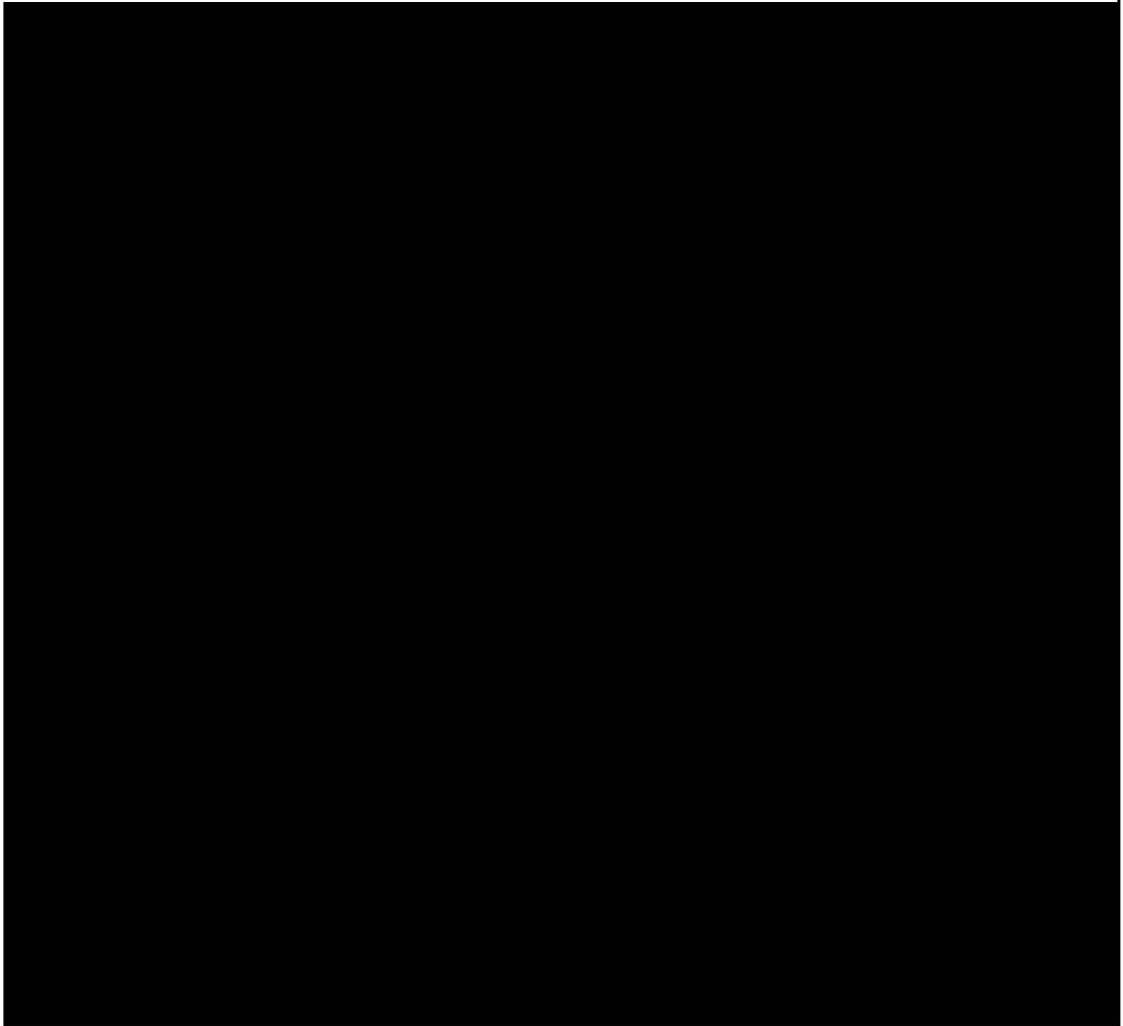
*25. Click the button below to proceed to the next page.

◯ I have viewed the video.

Television Viewing Study

Responses to Video Segment 2

✱26. For the following statements, indicate your response to the television segment—i.e., the story line of the segment, by selecting the most appropriate response from "not at all" to "very much" including the varying levels in-between.

	not at all				very much
"The events in the segment have changed my life."	○	○	○	○	○
"The segment affected me emotionally."	○	○	○	○	○
"While I was watching the segment, I could easily picture the events in it taking place."	○	○	○	○	○
"The events in the segment are relevant to my everyday life."	○	○	○	○	○
"I wanted to see how the segment ended."	○	○	○	○	○
"I found my mind wandering while viewing the segment."	○	○	○	○	○
"I was mentally involved in the segment while watching."	○	○	○	○	○
"I could picture myself in the scene of the events taking place in the segment."	○	○	○	○	○
"After the segment ended, I found it easy to put it out of my mind."	○	○	○	○	○
"I found myself thinking of ways the segment could have turned out differently."	○	○	○	○	○
"While I was watching the segment, activity going on in the room around me was on my mind."	○	○	○	○	○

Television Viewing Study

Attention to Video Segment 2

This section concerns your attention to the short video segment.

*27. To the best of your ability please rate the amount of attention you were able to give the video segment you have viewed.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I was thinking about something else while I was watching the two video segments.	◯	◯	◯	◯	◯
I missed some of what was happening in the two video segments.	◯	◯	◯	◯	◯
I was listening carefully while I was watching the two video segments.	◯	◯	◯	◯	◯
My mind was wandering while I was watching the two video segments.	◯	◯	◯	◯	◯
I was paying close attention while I was watching the two video segments.	◯	◯	◯	◯	◯

Television Viewing Study

Pop-up Advertisements

*28. Did this video have a pop-up advertisement?

◯ no

◯ yes

Television Viewing Study

Pop-up Advertisement

*29. Did the pop-up advertisement interfere with your viewing of the video?

◯ no

◯ yes

Television Viewing Study

Video Viewing

✳30. Did this video seem...

- ◯ longer than the typical TV commercial
- ◯ shorter than the typical TV commercial
- ◯ about the same length as the typical TV commercial

Television Viewing Study

Thoughts and Feelings about Video Segments

To the best of your ability please answer the following questions concerning the video segments you have viewed.

*31. Please list the first thoughts that come to your mind when thinking about the two video segments you have viewed.

*32. What do you think are the main messages in the two video segments you have viewed?

*33. How did the two video segments you have viewed make you feel?

Video Recall

How well do you remember information from the video segments you have just viewed?

✱34. To the best of your ability please try to recall information from the two video segments you have viewed.

	false	true
A woman was wearing a white dress in at least one of the video segments.	◯	◯
There was a woman setting up tables to feed the hungry in at least one of the video segments.	◯	◯
There were humorous moments in at least one of the video segments.	◯	◯
There was a man behaving like a cheerleader in at least one of the video segments.	◯	◯
A house has new furniture in at least one of the video segments.	◯	◯
There was an elderly woman eavesdropping in at least one of the video segments.	◯	◯
A dog was behaving like a human in at least one of the video segments.	◯	◯
A man was driving recklessly in at least one of the video segments.	◯	◯
There was a woman from a morning TV program featured in at least one of the video segments.	◯	◯
There were dramatic moments in at least one of the video segments.	◯	◯

Life Goals

The following questions concern life goals and should be answered based on a scale ranging from "strongly agree" to "strongly disagree", and the bubbles in-between indicate your level of agreement or disagreement with how the question aligns with your personal aspirations and life philosophy.

＊35. This section concerns thoughts and attitudes about success.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I admire people who own expensive homes, cars, and clothes.	○	○	○	○	○
I don't place much emphasis on the amount of material objects people own as a sign of success.	○	○	○	○	○
Some of the most important achievements in life include acquiring material possessions.	○	○	○	○	○
I like to own things that impress people.	○	○	○	○	○
The things I own say a lot about how well I'm doing in life.	○	○	○	○	○

＊36. This section concerns thoughts and attitudes about happiness.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I have all the things I really need to enjoy life.	○	○	○	○	○
It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	○	○	○	○	○
I wouldn't be any happier if I owned nicer things.	○	○	○	○	○
My life would be better if I owned certain things I don't have.	○	○	○	○	○
I would be happier if I could afford to buy more things.	○	○	○	○	○

＊37. This section concerns thoughts and attitudes about personal possessions.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
I try to keep my life simple as far as possessions are concerned.	○	○	○	○	○
Buying things gives me a lot of pleasure.	○	○	○	○	○
I put less emphasis on material things than most people I know.	○	○	○	○	○
The things I own aren't all that important to me.	○	○	○	○	○
I like a lot of luxury in life.	○	○	○	○	○

Behavioral Intentions

✱38. This section concerns behavioral intentions; after reading each statement select "false" if the statement does not describe you or "true" if the statement does describe you. Finally, indicate if you have performed this behavior by selecting "have done".

	false	true	have done
I would voluntarily look after a neighbor's pet or children without being paid.	☐	☐	☐
I would give money to a charity.	☐	☐	☐
I would allow someone I did not know to go in front of me in line.	☐	☐	☐
I would give directions to someone I did not know.	☐	☐	☐
I would let a neighbor I did not know well borrow an item of value to me.	☐	☐	☐
I would delay an elevator and hold the door for someone I did not know.	☐	☐	☐
I would point out a clerk's error in undercharging me for an item.	☐	☐	☐
I would offer my seat on a train or bus to someone who was standing.	☐	☐	☐
I would help a classmate who I did not know well with a homework assignment when my knowledge was greater than his or hers.	☐	☐	☐
I would help carry belongings of someone I did not know.	☐	☐	☐
I would make change for for someone I did not know.	☐	☐	☐
I would donate clothes or goods to a charity.	☐	☐	☐
I would offer to help a handicapped or elderly person across the street.	☐	☐	☐
I would help an acquaintance move houses.	☐	☐	☐

Television Viewing Study

Perceived Impacts of Television

This section concerns your thoughts about the potential impact of the two video segments you have viewed.

*39. To the best of your ability please answer the following questions focusing on how you think mass communications affect you, your friends and family, and the general public (people you don't know).

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
The video segments I viewed could have a strong influence on me.	◯	◯	◯	◯	◯
The video segments I viewed could have a strong influence on my friends and family.	◯	◯	◯	◯	◯
The video segments I viewed could have a strong influence on the general public.	◯	◯	◯	◯	◯
In general, TV commercials are pretty effective at persuading me.	◯	◯	◯	◯	◯
In general, TV commercials are pretty effective at persuading my friends and family.	◯	◯	◯	◯	◯
In general, TV commercials are very effective at persuading the general public.	◯	◯	◯	◯	◯
Public service announcements resonate strongly with me.	◯	◯	◯	◯	◯
Public service announcements resonate strongly with my friends and family.	◯	◯	◯	◯	◯
Public service announcements resonate strongly with the general public.	◯	◯	◯	◯	◯
I believe television entertainment content has a significant impact on me.	◯	◯	◯	◯	◯
I believe television entertainment content has a significant impact on my friends and family.	◯	◯	◯	◯	◯
I believe television entertainment content has a significant impact on the general public.	◯	◯	◯	◯	◯
I believe television news content has a significant impact on me.	◯	◯	◯	◯	◯
I believe television news content has a significant impact on my friends and family.	◯	◯	◯	◯	◯
I believe television news content has a significant impact on the general public.	◯	◯	◯	◯	◯

Television Viewing Study

General Demographics

*40. Are you male or female?

◯ MALE

◯ FEMALE

*41. What is your age?

YEARS: [   ]

*42. Which of the following categories best describes your political affiliation?

◯ Strong conservative

◯ Lean towards conservative

◯ Middle of the road

◯ Lean towards liberal

◯ Strong liberal

◯ Other (please specify)

[   ]

43. What is your annual household income?

◯ Less than $25,000

◯ $25,000 - $49,999

◯ $50,000 - $74,999

◯ $75,000 - $99,999

◯ $100,000 - $149,999

◯ $150,000 or more

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

[   ]

45. If you are in college, what is your academic major?

[   ]

46. What courses about film and video have you taken? (Please list)

＊47. Are you a CSU student taking this survey for credit/extra credit?

◯ YES

◯ NO

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Television Viewing Study

CSU

You have been directed to this page because you have indicated that you are receiving course credit or extra credit for participating in this survey. This page will be separated from the rest of the survey, and at no point will your name be associated with your survey answers.

*48. Name:

*49. CSU Student ID:

*50. Course you are receiving credit/extra credit in:

*51. Professor (please provide TA as well if you are in COM 101):

Thank you very much for participating in this study!

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APPENDIX B

HISTOGRAMS

TRANSPORTATION FREQUENCY DISTRIBUTIONS

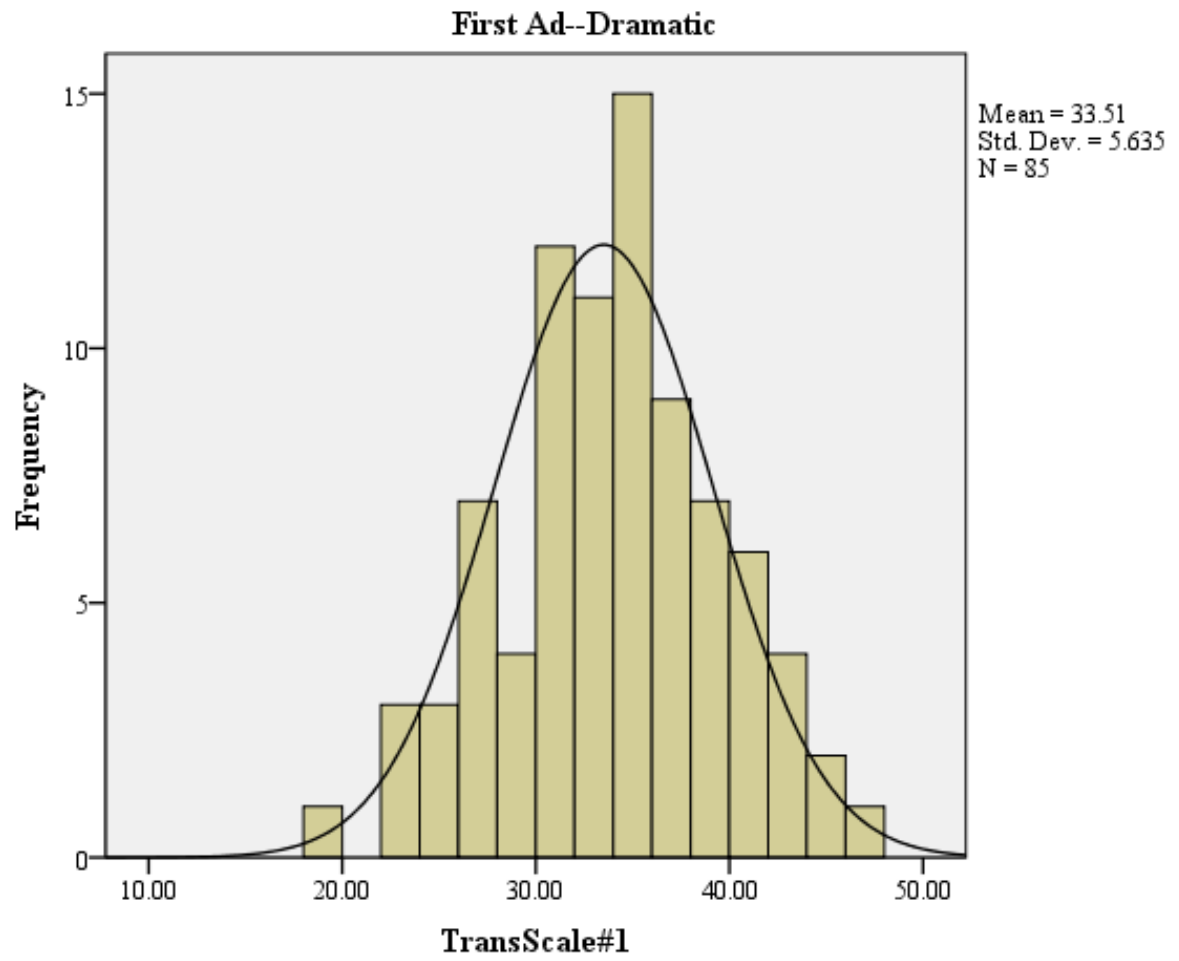Figure B1.

Distribution for Transportation: First Ad—Dramatic

Figure B2.

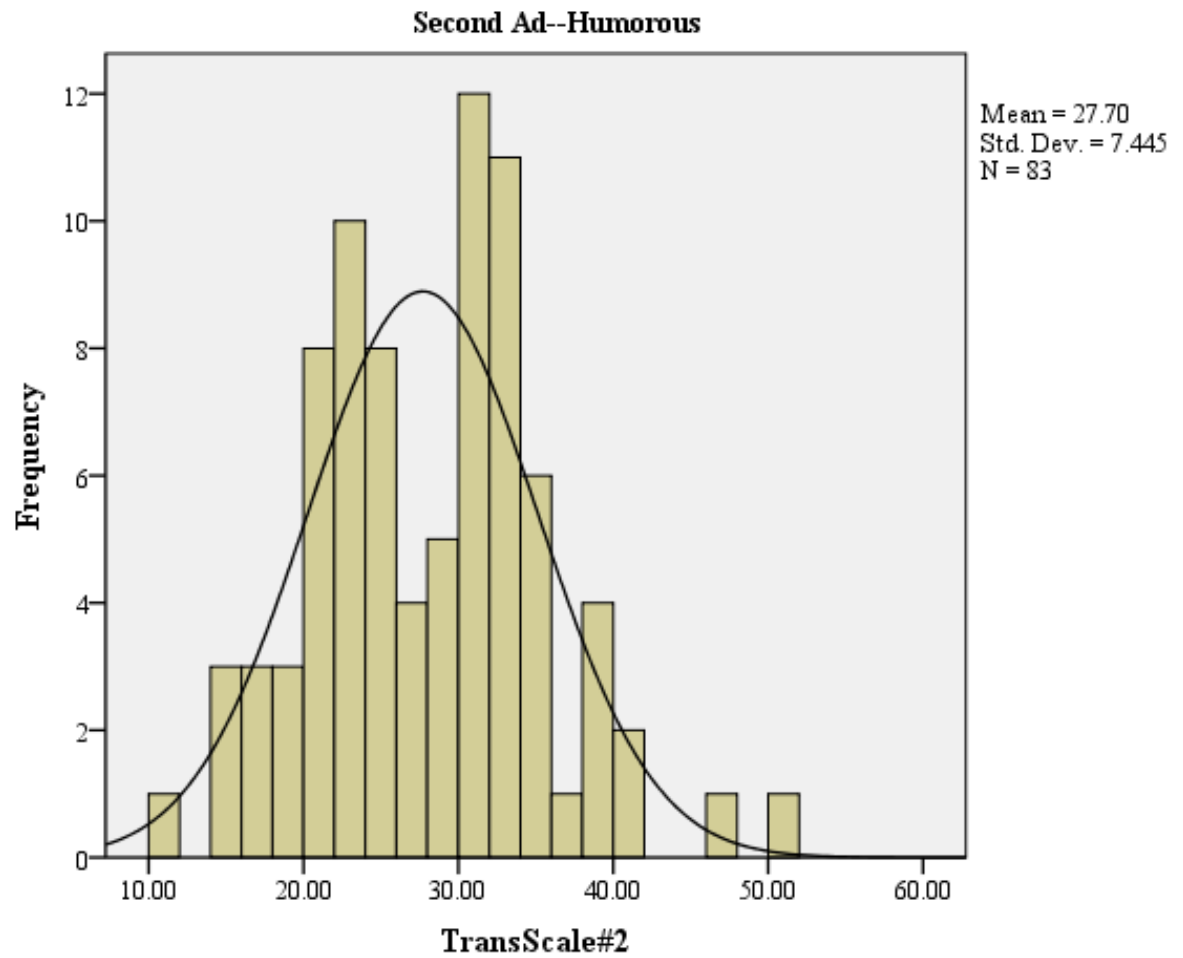Distribution for Transportation: Second Ad—Humorous

Figure B3.

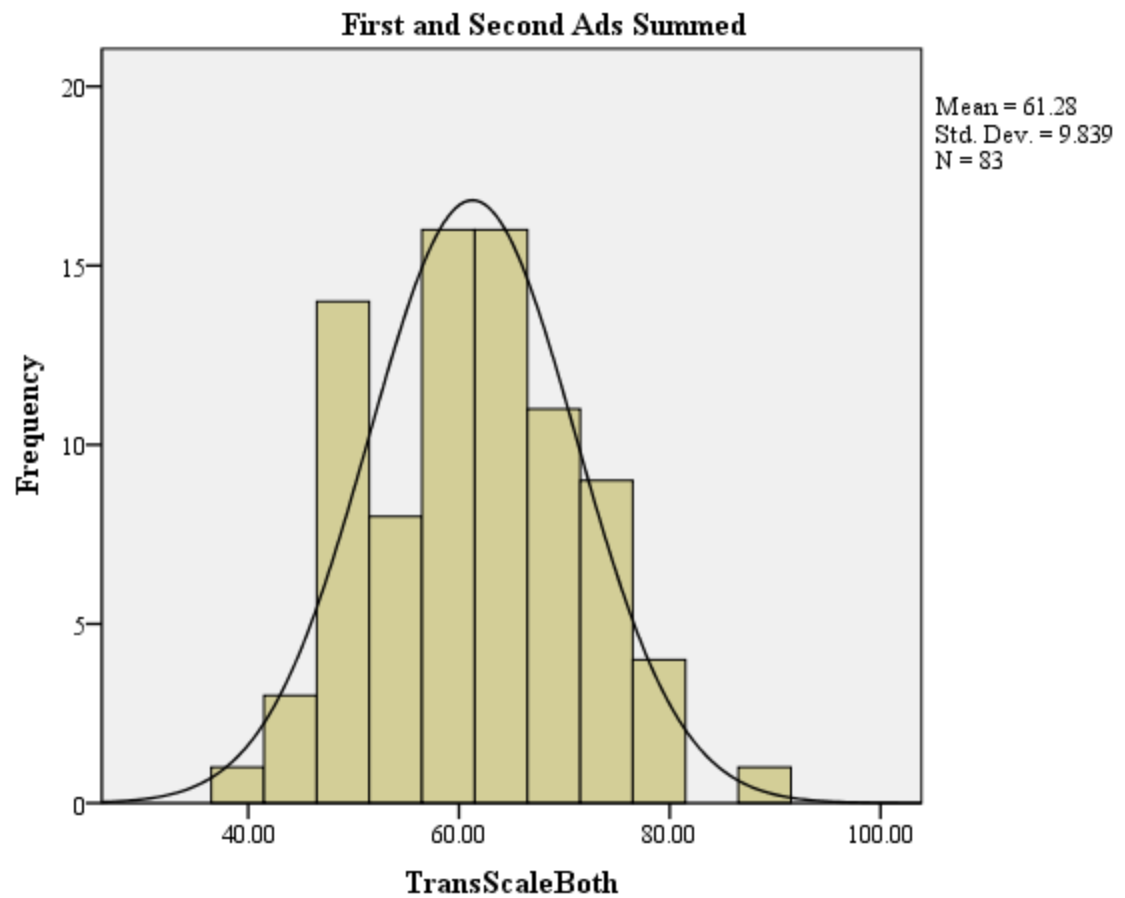Distribution for Transportation: First and Second Ads Summed

First and Second Ads Summed

Mean = 61.28
Std. Dev. = 9.839
N = 83

Figure B4.

Distribution for Transportation: First PSA—Dramatic

First PSA--Dramatic
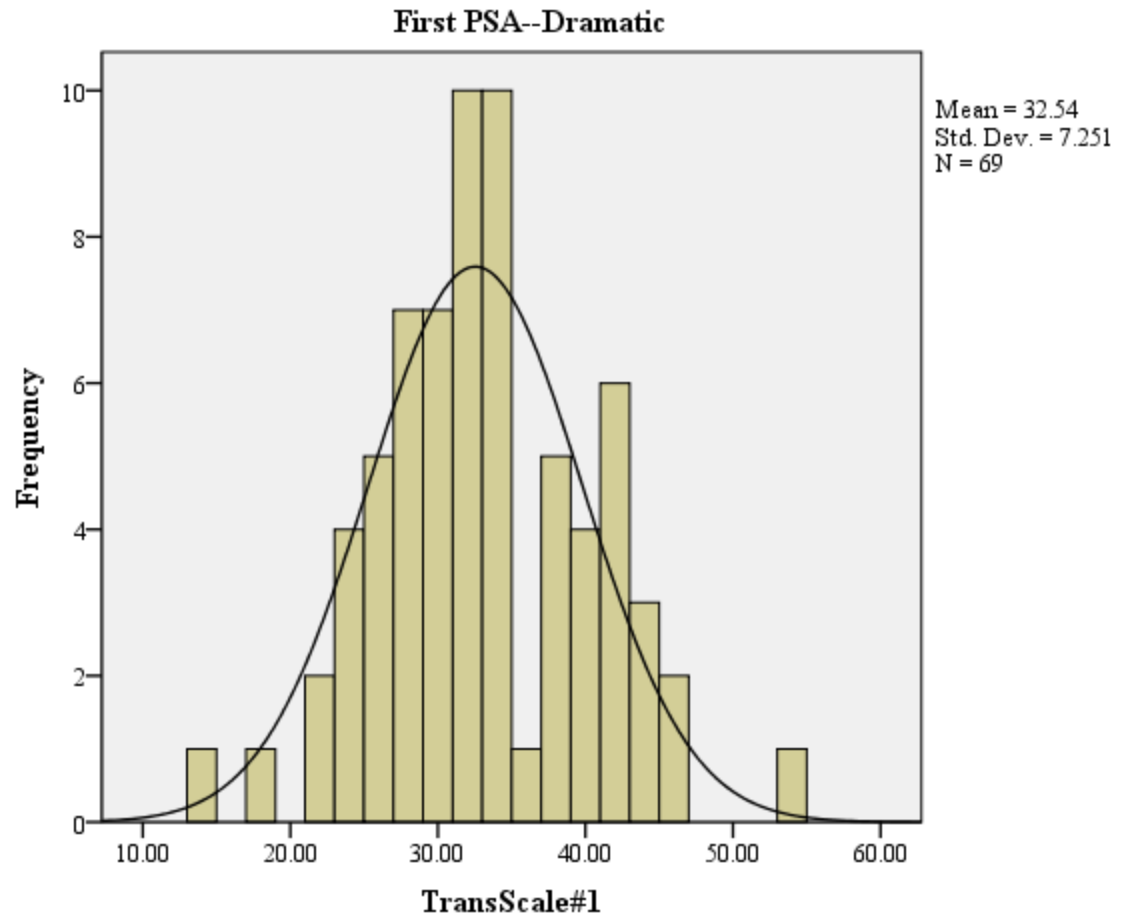
Mean = 32.54
Std. Dev. = 7.251
N = 69

Figure B5.

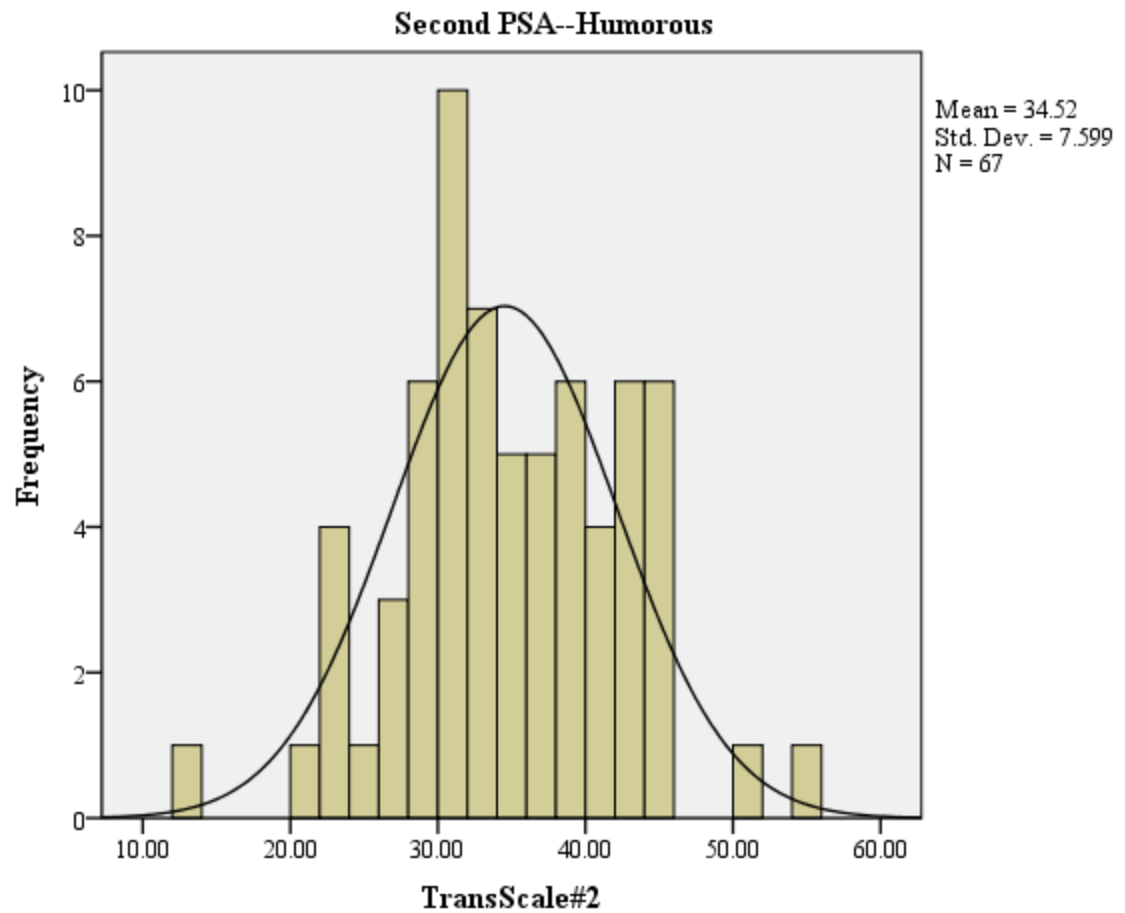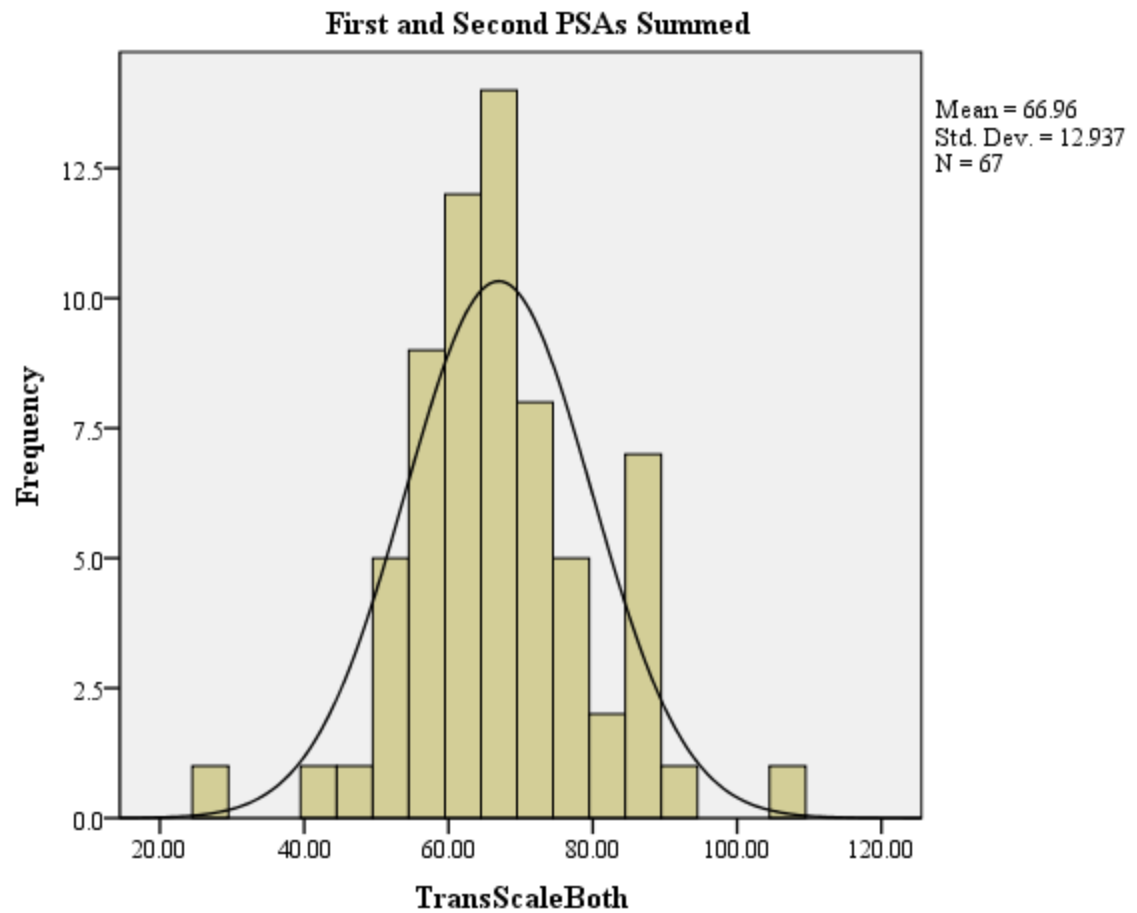Distribution for Transportation: Second PSA—Humorous

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Figure B6.

Distribution for Transportation: First and Second PSAs Summed

NOTES

[1] It should be noted that both fictional and documentary content contains a narrative. Even "unscripted" television (i.e., reality TV) is in fact scripted, and provides a clear narrative.

[2] The five postulates as proposed by Green and Brock (2002):

Postulate I. Narrative persuasion is limited to story texts (scripts) a) which are in fact narratives, b) in which images are evoked, and c) in which readers' (viewers') beliefs are implicated.

Postulate II. Narrative persuasion (belief change) occurs, *other things equal*, to the extent that the evoked images are activated by psychological transportation, defined as a state in which a reader becomes absorbed in the narrative world, leaving the real world, at least momentarily, behind.

Postulate III. Propensity for transportation by exposure to a given narrative account is affected by attributes of the recipient (for example, imagery skill).

Postulate IV. Propensity for transportation by exposure to a given narrative account is affected by attributes of the text (script). Among these moderating attributes are the level of artistic craftsmanship and the extent of adherence to narrative format; another conceivable moderator, whether the text is labeled as fact or fiction (as true or not necessarily true), does not limit transportation.

Postulate V. Propensity for transportation by exposure to a given narrative account is affected by attributes of the context (medium). Among these moderating attributes may be aspects of the context or medium that limit opportunity for imaginative investment and participatory responses.

[3] The seven research propositions as proposed by Van Laer, de Ruyter, Visconte, and Wetzels (2014):

P1: Storytellers' narrative transportation leads to emotional contagion and loss of control of their artistic craftsmanship (at different rates), which have opposite effects on story receivers' narrative transportation. At low levels of storytellers' narrative transportation, emotional contagion is greater than loss of control of their artistic craftsmanship, leading to a net positive effect on story receivers' narrative transportation. Beyond a certain level of storytellers' narrative transportation, loss of control of their artistic craftsmanship is greater than emotional contagion leading to a net negative effect on story receivers' narrative transportation.

P2: The more stories are noncommercial, the more narrative transportation increases.

P3: Young children develop literacy and deception detection abilities (at different rates) that have opposite effects on their narrative transportation. Under 7 or 8 years, literacy development is greater than the development of deception detection abilities, leading to a net positive effect on young children's narrative transportation. From age 8, the development of deception detection abilities is greater than literacy development, leading to a net negative effect on young children's narrative transportation.

P4: As a medium's modality improves story receivers' distribution of cognitive resources, story receivers' responsiveness to the storytellers' antecedents increases, thus increasing the effect of the storyteller antecedents on narrative transportation.

P5: As story receivers perceive norms to be stronger or share more interpretive strategies with their social group, their sensitivity to the story receiver antecedents decreases, thus decreasing the effect of the story receiver antecedents on narrative transportation.

P6: The more narrative transportation increases, the more story-consistent self-efficacy increases.

P7: The more narrative transportation increases, the more story-consistent behavior increases.

[4] Science fiction film: *Gattaca*, 1998; Crime-drama film: *A Murder of Crows*, 1998; Romantic comedy film: *The Very Thought of You*, 1998.

[5] The MAIN model attempts to describe the effect technology has on credibility based on affordances (ability of a medium, as perceived by users, to allow various actions). The MAIN model consists of four different affordances (Modality, Agency, Interactivity, and Navigability) that could trigger cognitive heuristics (heuristics could be considered cognitive shortcuts or "cues" stored in our memory from prior learning experiences informing our decision making when we are either unable or unwilling to process information more thoroughly) impacting our attitudes, and, thereby, influencing our behavior.

[6] Links for television commercials used in the pilot test:

Toyota RAV 4-http://www.youtube.com/watch?v=3uwtba55d3E;

Volkswagon Jetta Big Day-http://www.youtube.com/watch?v=8hxK4uNOXY4;

Ikea Dog—Tidy Up-http://www.youtube.com/watch?v=TyGSWbh-gHM;

Skechers Go Run—Dog-http://www.youtube.com/watch?v=2T1_VB1FqRU;

Captain Awesome—Buy More-http://www.youtube.com/watch?v=Eh7p-8Uy_98;
Mini Cooper—Crammit in the Boot-http://www.youtube.com/watch?v=9YwL4HrvHoY;
Akai Bravo TV—Ruffy Khan-http://www.youtube.com/watch?v=xmeZR134ZEA;
Danier Leather—My Hotel Key-http://www.youtube.com/watch?v=sBqxZAf3_FE;
Modular Furniture-http://www.youtube.com/watch?v=hfJO8aAeQwE;
Jeep Liberty—Singing Animals-http://www.youtube.com/watch?v=45Vok2fM7Lg.
Links for public service announcements used in the pilot test:
College Crash Course—NFL-http://www.youtube.com/watch?v=eJFM58Z2f7E;
Today Takes Action—Hunger Prevention-http://www.youtube.com/watch?v=b2nw9ny41dk;
Fatherhood Involvement—Cheerleader-http://www.youtube.com/watch?v=Yvv2SJ4VORE;
Teach—Anthem-http://www.youtube.com/watch?v=EDGGAIQNHgs;
Unplug—Discover the Forest-http://www.youtube.com/watch?v=aWGEVYMnpG4;
Bullying Prevention—Bully-http://www.youtube.com/watch?v=fJFuc8FqFHo;
Stroke Awareness—Body Language-http://www.youtube.com/watch?v=ccHbK8NUu0I;
Emergency Preparedness—The Day Before-http://www.youtube.com/watch?v=KMAZfReyWd4;
Unplug & Reconnect with Nature-http://www.youtube.com/watch?v=ze71V5tuwz0;
Hunger Prevention—Matt Damon-http://www.youtube.com/watch?v=PIBM8D0ZyMk.

[7] TV ads used in the experiment: Dramatic-Volkswagon Jetta—Big Day-
http://www.youtube.com/watch?v=8hxK4uNOXY4; Humorous-Ikea Dog—Tidy Up-
http://www.youtube.com/watch?v=TyGSWbh-gHM. TV PSAs used in the experiment: Dramatic-Today
Takes Action—Hunger Prevention-http://www.youtube.com/watch?v=b2nw9ny41dk; Humorous-
Fatherhood Involvement—Cheerleader-http://www.youtube.com/watch?v=Yvv2SJ4VORE.

[8] Not all people will anthropomorphize a dog (or an animal in general) and to identify with a dog as a main
character in a visual narrative one may have to use anthropomorphosis to create a link allowing for the
rapport necessary to connect with a character. Research has shown anything interfering with the pleasant
transportation experience will degrade the experience and stop transportation. Certainly, it is highly
possible having a dog as the main and only character for a short narrative interfered with potential for a
transportation experience.