MODERATING EFFECTS OF PLOT TYPE AND MESSAGE SENSATION VALUE ON NARRATIVE AD PROCESSING

by

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ABSTRACT

Although there have been studies of how narrative ads affect viewers’ responses more effectively compared with argumentative ads, there has been very little research done to specify kinds of message factors within narrative ads. However, it is crucial to understand what message factors enhance or inhibit narrative processing in order to produce more persuasive ad messages. In this study, the main and interaction effects on narrative processing of two message factors – plot type (product-centered vs. non-product-centered) and message sensation value (MSV; high vs. low) were investigated. The persuasion knowledge model and the limited capacity of information processing model were integrated to predict and explain effect patterns. Significant main effects were found for both message factors. In terms of plot type, a non-product-centered plot showed a significantly greater level of narrative processing than a product-centered plot which activated viewer’s inference of manipulation intention. MSV also had a significant main effect; narrative ad messages with high MSV led to greater narrative processing. The analyses of interaction effects between the two factors, however, revealed a change of effect direction. When viewers watched a narrative ad with a product-centered plot, high MSV demanded additional cognitive resources from the viewers and hindered them from using their cognitive resources to activate inference of manipulation intention, leading them to evaluate high MSV ads as demanding a greater level of narrative processing compared to low MSV ads. However, in the non-product-centered plot condition, ad viewers regarded high MSV as a distraction which hampered their ability to transport themselves to a dramatized narrative world and therefore they
evaluated these ads as less enjoyable. Theoretical and practical implications of the findings are discussed.
DEDICATION

To my wife, JuHyun.

Your love and support made it possible for me to complete this long and painstaking work. I cannot express how grateful I am to you.
LIST OF ABBREVIATIONS AND SYMBOLS

\( a \)  Cronbach’s index of internal consistency

\( df \)  Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data

\( F \)  Fisher’s \( F \) ratio: A ratio of two variances

\( M \)  Mean: the sum of a set of measurements divided by the number of measurements in the set

\( \eta^2 \)  Eta square; Measure of strength of relationship

\( p \)  Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value

\( r \)  Pearson product-moment correlation

\( t \)  Computed value of \( t \) test

<  Less than

=  Equal to

\( SD \)  Standard Deviation
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CHAPTER ONE
INTRODUCTION

In a TV commercial for General Motors Company, a car-building robot becomes obsessed with quality and has nightmares about making a mistake and being expelled from the manufacturing plant. This advertisement relies on a humorous narrative rather than a listing of statements to communicate how important the company considers reliability and quality to be. This style of advertisement is called a narrative ad and is common in various advertising media such as TV, newspapers, and magazines.

In our daily lives, the information is conveyed to us in the form of narratives in thematically and temporally related sequences of events (Bruner, 1990). According to the marketing literature, narrative ads are evaluated more favorably than argumentative ads because they prompt a narrative form of processing which is similar to everyday information intake (Adaival & Wyer, 1998; Escalas, 2004; Polyorat, Alden, & Kim, 2007; Wells, 1988). Furthermore, in some comparisons of the effectiveness of argumentative ads and narrative ads, narrative ads have been found to be more persuasive because they provide more specific factors of narrative processing. Narrative ads can enhance persuasion by eliciting strong cognitive and affective reactions (Deighton, Romer, & McQueen, 1989; Escalas & Stern, 2003; Green & Brock, 2000) and by constructing positive attitudes toward ads (Chang, 2009; Deighton et al., 1989; Escalas, 2004; Escalas & Stern, 2003; Stern, 1994; Wentzel, Tomczak, & Herrmann, 2010). Argumentative ads, on the other hand, usually elicit a more analytical and counter-arguing form of processing in which consumers engage in a logical and piecemeal evaluation of
the ad’s arguments (Adaval & Wyer, 1998; Deighton et al., 1989; Wells, 1988). Hence, the persuasive “superiority” of narrative ads can be attributed to their ability to trigger narrative processing (Chang, 2009; Escalas, 2004).

However, there seems to be at least one major gap in this field of research, which is that researchers have focused almost exclusively on the receiver component of the advertising-communication process. Much effort has been devoted to the study of what effects advertisements have on receivers. Specifically, most researchers have focused on developing theoretical models of narrative processing based on empirical comparisons between narrative ads and argumentative ads. Few studies have been conducted in order to delineate and analyze the specific message stimuli of advertisements which are responsible for these effects. In the present study, the influence of moderating message factors of narrative ads which are responsible for enhancing or inhibiting consumers’ narrative processing will be investigated.

The effectiveness of persuasive messages has been studied in terms of both content and format. While content and format are often melded in a single message and while it is not always obvious which message features are format and which are content, the distinction is heuristically useful. In general terms, content refers to the plot, topic, theme, story, or argument the message presents, whereas format refers to the way in which the plot, theme, topic, story or argument is presented (Kang, Cappella, & Fishbein, 2006). Some define content as the semantic elements of the message presented through textual, visual, and audio modalities, while format is seen as the syntactic structure of these semantic elements (Messaris, 1997).

Research into persuasion has taken into account both content and format and sometimes their interaction. Studies on plot, argument quality, message sidedness, and types of normative
appeals are focused on message content and its effects on attention, reception, acceptance, and yielding. On the other hand, studies on certain message features including edits, cuts, and visual images are focused more on message format by considering how the same information or argument can be presented or structured in different ways in order to influence consumers’ processing of the message.

The current study is a continuation of this tradition in the context of TV narrative advertising. By identifying two message features – plot type and message sensation value (MSV) – as content and format respectively, the main and interaction effects between content and format on the consumer’s narrative processing will be examined. In the context of narrative ads, plot type is defined for the purpose of this study as the semantic role of an advertised product in the relationship between narrative component (e.g., conflict) and narrative ad content. Plot is categorized into two types: product-centered and non-product-centered. MSV is defined as the syntactic audiovisual features in a message and is categorized as high and low by aggregating the amount of audiovisual format features in the message. Two theoretical models are used to propose hypothetical main and interaction patterns between plot type and MSV: the persuasion knowledge model (Friestad & Wright, 1994) and the limited capacity of information processing model (Lang, 2000). These theories offer moderating predictions about the consequences of MSV and plot types on the message effectiveness of narrative ads. Empirical tests of two moderating variables might also serve as a check for the construct validity of MSV (and its subcomponents) as an elicitor of arousal and attention in the context of narrative advertising messages.

The results of the present study may assist advertising professionals in producing better and more efficient narrative ad designs because plot type and MSV can be more easily controlled
in the initial development step. Furthermore, educators in advertising or practical production programs may use the results to develop new conceptual guidelines for teaching effective narrative ad design, which is rarely discussed in these programs.
CHAPTER TWO
LITERATURE REVIEW

Essential Elements of Narrative

A great deal of psychology literature is devoted to studies of how people process information, form mental categories, encode, store and retrieve information, and so forth. Recently, researchers have taken an interest in narrative processing and have used analogies with science and literature to propose two different modes of thought: the rigorous world of logical deduction, which is labeled paradigmatic thought, and the imprecise world of aesthetic intentions, which is labeled narrative thought (Bruner, 1986). Baumeister and Newman (1994) argued that the narrative mode of thought creates stories that are coherent accounts of particular experiences, temporally structured and context-sensitive. The narrative mode does not dictate that individuals form elaborate, complex ideas in their minds. Rather, through narrative processing, people think about the information they take in as if they are trying to create a story; individuals continuously attempt to impose narrative structure on everyday occurrences in order to understand them (Woodside, Sood, & Miller, 2008).

An important aspect of narrative processing is its structure. Escalas (2004) suggested that narrative structure has two fundamental elements: chronology and causality. In terms of chronology, narrative thought organizes events with a temporal dimension that is configured in narratives as different episodes even though time in reality is an undifferentiated, continuous flow. Polkinghorne (1991) theorized that chronological thinking is the primary dimension of
human experience and explained the human perception of narrative episodes with a beginning, middle, and end, known as experienced time, as structured time. Kerby (1991) asserted that “the general objective of narrative to achieve closure (by framing the story with a beginning, middle, and end) is a fundamental way in which individuals understand human events” (p. 72).

The second essential element of narrative structure is causal inferencing in the narrative. A person’s organizing ability to make a narrative story incorporates general knowledge about goal-oriented action sequences. Episodes and events are accepted and memorized by establishing causal and intentional relations among them. Pennington and Hastie (1992) explain that “episode schemas are one way to characterize narrative causal structure” (p. 119). They argue that episode schemas create psychological and physical reactions to events and the goal of the main characters. In other words, attempting to interpret the actor or an event or series of events initiates a psychological (or physical) reaction and activates goals in a main character which may have existed before the initial event occurred or be formulated in response to the initial event. The psychological state and goals of the protagonist provide rationales for his or her subsequent actions that lead to an outcome or result. The direct links between elements of episode schemas maybe utilized in a given interpretation or retelling of an action sequence. For instance, a protagonist feels jealous (i.e., psychological state; beginning), decides to free himself from this state (goal; middle), and kills his rival (outcome; end).

While Pennington and Hastie’s (1992) explanation proposes narrative generalities, there is no consensus on narrative structure, particularly across different academic fields. In psychology, Bruner (1990) contends that there are four necessary elements of narrative structure. First, narratives must include agents engaged in actions undertaken to achieve goals. Second, sequential order (i.e., causality) must be established and maintained. Episodic events are
linearized in a standard way (i.e., chronology) so that a causal sequence of events can be established. The third required element is that narratives must be canonical. In other words, they must conform to general rules. Finally, narrative is never voiceless. The third and fourth elements deal less with narrative structure although they are focused on more with the quality of narrative.

Alternatively, in the field of rhetoric, Burke (1969) asserted that any complete statement about motives will answer the following five questions, which correspond to his five elements of narrative. First, what was done? (the action). Second, when or where was it? (the scene). Third, who did it? (the actor). Fourth, how did the actor do it? (the instrument or agency). And finally, why? (the purpose or intention). Except for the scene, these elements correspond to the components of the episode schema developed by Pennington and Hastie (1992), but the “when” aspect of Burke’s scene element can be thought of as contributing to the chronology of narrative.

Literature grammarians have pointed out that narratives have an underlying structure that has common elements in spite of differences in story content. Mandler (1984) argues that “stories consist of a setting and a series of episodes with a final ending event” (p. 223). These episodes could be broken into smaller and smaller units. At the smallest unit, it can be analyzed with a beginning, development, and ending. Essentially, grammarians assume a set of essential elements that must be included in a story and provide rules that specify the relations between elements (Brewer & Lichtenstein, 1981).

In sum, while these theoretical investigations about necessary elements of narrative come from various fields, they are consistently based on two structural essentials: a temporal dimension (chronology) and relationships between narrative elements (causality). Based on
these two basic elements of narrative, various components such as actor, performance, event, and conflict make a narrative. Therefore, narrative messages are characterized by a content component (i.e., actors, performances, and motives) as well as by a structural component (i.e., a causal and temporal plot). These specific elements will be discussed below, with a focus on the functions of narratives.

Functions of Narratives

Individuals process much of the information in their daily lives in the form of narratives in thematically and temporally related sequences of episodes, events, and characters. By constructing narrative forms, individuals are able to organize their experiences, create order, explain unusual events, and gain perspective and make evaluations (Bruner, 1990). Narratives place events into framing contexts so that the parts can be understood in relation to the whole. For instance, the meaning of an event can be constructed as the result of its being a part of a plot (Green & Brock, 2000; Polkinghorne, 1991). In this manner, people can make meaningful evaluations (Pennington & Hastie, 1992), form judgments (Gergen & Gergen, 1988), and inform action (Olson, 1990). This format for experienced events also makes them memorable and sharable (Olson, 1990).

Early experiments on narrative thought shed light on how people think, perceive, and imagine according to narrative structure. Sarbin (1986) found that participants who were asked to evaluate the relationship between two or three stimuli (i.e., still pictures) which were randomly selected, static, and non-narrative in structure connected them to form a story, constructing causality and chronology in a narrative fashion. To date, this story construction task
with individual pictures has been used in various tests for measuring causal reasoning and chronological ordering as a measure of intelligence.

Narrative thought also informs emotional experience. First, narratives play a role in emotion appraisal (Shweder, 1994). Because narrative thought provides an interpretive scheme which organizes the world and one’s relationship to it, it helps to determine the self-relevance of events, which is a necessary precursor to emotion (Lazarus, 1991). Shweder found that emotions have different “plots” that are matched to current situations, leading to different emotional responses. Second, stories help people understand, evaluate, and cope with emotions once they have been aroused. Narratives make emotions meaningful by “placing them in the context of an individual’s personal history and goals” (Averill, 1994, p. 17). Others assert that to be comprehensive, emotion must be a constituent of a recognizable narrative (e.g., Gergen & Gergen, 1988). People may even have a narrative understanding of the best way to cope with or respond to emotion (Clore, 1994).

Given this narrative understanding of the world, it is not surprising that people also think of themselves in terms of self-stories. When asked “Who are you?” most people offer a narrative of their past. The self is given context through narrative constructions (Kerby, 1991), with different aspects of the self illustrated by different stories about the past. Broadly speaking, a person’s memories are formed as goal-directed, coherent sequences linking his or her past, present, and future into a present identity.

Finally, narratives could be constructive ones which allow people use narratives to construct their understanding of the world. Baumeister and Newman (1994) explain that typical stories are made of interrelated episodes or events described as action sequences. In other words,
people are willing to make inferences and forget information in order to make their own stories with their coherent and complete form of narrative. Reissman (1993) suggests the memories are fluid and contextual in the narrative mode of thought. It could be said that the human mind is a creative model-builder, and the narrative mode of thought is an ongoing process the mind uses to fit characters, episodes, and events together to depict the world and give life meaning (Escalas, 2004).

Many scholars have shown congruent results asserting that people naturally tend to think about and interpret the world around them through narrative thought (e.g., Bruner, 1990; Kerby, 1991). Building stories is the mode of thought that optimally represents the experiential aspect of our intention, action, and consequences. It involves reasons and goals (Reissman, 1993). Hermans (1996) argues that the narrative process is so pervasive that people are able to create new stories to explain the random movement of rectangles, giving the movements causality and chronology. Bruner (1986) insists that the reason we have no early infant memories is that the memories were not able to incorporate characters, episodes, and events in narrative form at that stage of development.

In sum, narrative processing is related not only with the way people take in information in their everyday lives, but also with the way people construct memories of their lives. Chafe (1990) articulates that people record the world creating it, mixing culture and expectations with sensory input and schematic knowledge. Narrative processing is based on audiences’ active building and constructing of their own stories. When the function of narrative is applied to the advertising field, however, it is necessary to probe the relationship between the audience’s narrative construction and the effectiveness of advertising in narrative ads. After defining and classifying narrative ads, this relationship will be discussed.
Narrative Advertisements

In advertising literature, narrative ads have been classified by two criteria: first, narrative continuity (self-contained vs. serial narrative ad) and second, inclusiveness of narrative components (i.e., narration, character and plot).

Although there are various storytelling methods in ad execution, most often, the ad is a self-contained narrative (Escalas, 1998). For example, Pizza Hut televised an ad which has basic narrative elements. The initiating event is the commencement of a Little League baseball game. The main character, a young red-headed boy (actor), is sent out to play as a right fielder (situation). The boy looks a little confused and does not appear to be paying attention to the game (psychological state; conflict implying his anxiety about whether he can play well in this big game). The action begins when a ball is hit in the boy’s direction. He raises his glove and miraculously catches the ball (accomplishing his goal). His face first registers shock, then joy. The cheering team runs out to celebrate this game-winning catch (the outcome). This celebration continues at Pizza Hut, where the team is shown celebrating its victory, with the right fielder at the center of attention. This example consists of chronological order and causal relationship in a self-contained narrative.

Some ads continue their stories with serial style of narrative form in which a basic plot is established and used repeatedly with different characters and settings. In ads for the painkiller Aleve, for example, the main actor is a hard-working individual who suffers from arthritis. He or she used to need many doses of other pain-relief medicine to make it through the day (conflict situation), but with Aleve he or she is able to take just two pills in the morning and work pain-free for the entire day (attaining a goal). The character may be a cowboy hat manufacturer,
electrician, or seamstress, but the narrator is always the same voice. Other ad campaigns that tell ongoing stories in serial form such as melodramas show varying degrees of this structure. The best example of the serial form of campaigns may be a 1990s Taster’s Choice campaign whose commercials were presented in a soap opera style, with each new ad building on the story-line presented in the last episode. The ads all end on a suspenseful note, such as the sudden appearance of the ex-husband of the woman in the couple who fell in love over Taster’s Choice coffee. The success of the Taster’s Choice campaign has led to numerous other continuing story campaigns (Stern, 1996). These styles of ads also rely on chronological order and causal relationships as they continue their narrative structures.

In the literature on narrative ads, researchers have been more concerned about the inclusiveness of narrative components in order to define an ad as a narrative ad. In other words, the definition of a narrative ad is simply an ad that tells a story (Escalas, 1998). However, the extent to which an ad tells a story is a matter of degree (Mick, 1987). Some ads may not have all the elements required to be a narrative. Others may focus on what happens but not why. Narrative ads have been studied by some consumer researchers looking at drama in advertising (e.g., Deighton et al., 1989; Escalas, 1998; Stern, 1994; Wells, 1984) and by others who applied narrative grammar to advertising (Mick, 1987). In advertising research, however, the definitions of drama are not completely synonymous with the necessary elements of a narrative as outlined above. Based on Well’s (1984) dichotomous description of lecture ads and narrative ads, Deighton et al. (1989) posited three elements for defining the difference between narrative ads and informative ads: narration, character, and plot. According to their classification, narrative ads have character and plot but not narration (only actor’s dialogue), while informative ads have narration but not character and plot. In narrative theory, however, all stories have a narrator.
presence, or at least a perspective stance (Bruner, 1990). In a film or play, audience members may feel that they are directly witnessing the action, in which case a point of view may substitute for the narrator (Chapman, 1978). In non-narrative ads, people understand the action through an actor’s perspective which is replaced by a narrator (Stern, 1994). Thus, the distinction which Deighton et al. had made would be not appropriate for defining a narrative ad. Broadly, it is more appropriate that both forms can be considered to be narrative ads. This rationale is based on the following notable studies on the definition and inclusiveness of narrative advertising.

According to Deighton et al. (1989), narrative ads influence persuasion by evoking feelings and by verisimilitude, which they operationalize as drawing the viewer into the ad and the ad being perceived as having authenticity. Informative ads, on the other hand, affect persuasion by presenting convincing arguments that do not evoke a great deal of counter-arguing. Thus, narrative ads work by generating affect, personally involving the viewer in the ad, and appearing to be realistic or believable stories. Deighton et al. developed a four-level ad structure taxonomy, but their empirical work contrasts only narrative and informative ads.

Stern (1994) stated that narrative ads are, in essence, classical drama. She refers to Freytag’s pyramid to define the elements of classical drama as a beginning, rising action, turning point, falling action, and resolution. This is entirely consistent with the way narratives have been defined in the literature. Stern distinguishes narrative ads from vignettes, which she defines as a series of narratives, and asserts that vignettes style can be regarded as narrative ads. However, this vignette style of ads does not have a temporal dimension of beginning, middle, and end. Vignettes are better referred to as a sequence of scenes or actions. Narratives have a linear chronology, whereas vignettes are discrete, unconnected stretches of time. Although many narrative ads rely on a linear, story-like sequence of events, Polyrat, Alden, and Kim (2007) have
recently asserted that this is not a necessary prerequisite; that is, the conclusion of a narrative ad can be communicated first, followed by the events that led up to this conclusion.

Mick (1987) sought to apply the formal structural analysis of story grammars to advertising, despite the fact that story grammars have primarily been used to study folktales and tend to have limited applicability (Mandler, 1984). Nevertheless, Mick found that the grammaticality of story ads was a matter of degree. In this type of analysis, ads are broken down into their “base structure,” which consists of grammatical story components, primarily a series of episodes as discussed above. Mick asserts that by analyzing story ads via the story grammar approach, advertisers can identify whether ads are story-like or not and determine the influence of story structure on cognitive responses such as recall. Moreover, he points out three differences between traditional stories (e.g., found in books and movies) and televised advertising narratives. First, consumers have preconceived ideas about the persuasive intent of the advertiser and approach advertising with more skepticism than they do a book or movie. Second, advertising narratives are pictorial, so they are more like movies than books. Finally, stories in ads are compressed to just 30 to 60 seconds and typically consist of one or two episodes at most.

Escalas (1998) supports Mick’s suggestion about TV narrative ads. In her content analysis, she found that many TV narrative ads do not begin with an initial event, but instead tend to “throw you into the action” (p. 279), meaning that the viewer picks up the storyline quickly via inferencing. Because narrative processing occurs naturally and requires little effort, consumers are able to understand fairly complex stories rapidly. This makes narrative ads appealing for two reasons: first, they are able to overcome the time constraint of advertising, and second, they can be understood in a low-involvement setting (Escalas, 1998).
In sum, although some of their traits are different from those of traditional narratives (e.g., book, TV drama, film, theater), narrative ads, in particular TV ads, can have essential elements of narratives and present these elements through various applied forms with persuasive goals. The various applied forms of narrative ads, however, have led to different definitions and conceptualizations of narrative ad in advertising literature. It may be more useful to define a narrative ad through describing factors of a narrative ad which impact the effectiveness of an ad’s ability to persuade.

**Effectiveness of NarrativeAds**

Traditional argumentative ads communicate information about the features of a product or service in a direct, logical, and fact-based manner. Each piece of information in an argumentative ad has its own meaning and can be interpreted without affecting the overall meaning of the ad very strongly (Adaval & Wyer, 1998) because the information in this type of ad is not conveyed by a character or conveyed through causality or chronology (Padgett & Allen, 1997). Distinguishing between narrative and argumentative ads is important since they typically trigger different forms of processing, “each providing distinctive ways of ordering experiences, of constructing reality” (Bruner, 1986, p. 11). Specifically, narrative ads often prompt viewers to adopt a narrative form of processing, whereas argumentative ads usually elicit an analytical form of processing. Based on the assertion that narrative ads prime narrative processing, there are a variety of ways in which narrative ads can affect viewers. However, this variety can be split into two broad categories: cognitive and emotional response.

Narrative ads have been shown to influence viewers’ cognitive responses. They may be able to capture a viewer’s attention and draw him or her into an ad. Escalas et al. (2004) found
that essential content elements of a narrative ad such as interesting and relevant plot, a familiar setting, or characters to whom the viewer can relate cause a personal involvement they called being hooked. A narrative can draw in or hook readers, making them experience what the characters feel and immersing them in the characters’ world.

Other scholars have recently suggested an integrated theoretical model focusing on “hooked state.” They suggest that narrative processing may elicit a cognitive process called transportation, which is defined as the extent to which individuals immerse themselves into a text and eventually get “lost” in it (Gerrig, 1993; Green & Brock, 2000). The term transportation is based on the metaphor that readers undertake a mental journey into the world of a narrative. When an individual is transported into the narrative world, “all mental systems and capacities become focused on the events occurring in the narrative” (Green & Brock, 2000, p. 701). The mental state of being transported to the narrative world has been conceptualized as a co-activation of attention, imagery, and emotions (Green, 2004; Green & Brock, 2000). Accordingly, transportation is a rather broad concept incorporating several aspects of an absorbed reception of information. The construct of transportation and the transportation scale proposed by Green and Brock for its measurement have been widely used in research on narrative persuasion.

Three different ways have been proposed for how transportation facilitates narrative processing. First, transportation may prevent activation of basic cognitive and elaborative processing that underlies resistance to persuasion, such as counterarguing (Green & Brock, 2000) or epistemic monitoring (Richter, Schroeder, & Wöhrmann, 2009; Schroeder, Richter, & Hoever, 2008). Second, transportation has strong a relationship with a vivid mental simulation of the events described in a narrative, with the consequence that these events may be misremembered
as if they were actual real-world experiences (Johnson, Hashtroudi, & Lindsay, 1993). Third, transportation involves strong emotional experiences that can facilitate narrative persuasion via positive mood (i.e., transportation is usually enjoyable; Green, Brock, & Kaufman, 2004), arousal (Clore & Schnall, 2005), or positive identification with story characters (Mar & Oatley, 2008; Oatley, 1994; Zillmann, 1991).

Among the three characteristics of transportation in narrative processing, the first is the most useful to discuss in the context of advertising literature. Transportation is distinct from elaboration of thinking, the major cognitive mechanism of two-process models of persuasion such as the Elaboration Likelihood Model (e.g., Petty & Wegener, 1999) and the Heuristic-Systematic Model (e.g., Chen & Chaiken, 1999). As opposed to elaboration, narrative thinking, which has been proposed to explain the impact of transportation, is not processed from distanced analytical processes such as propositional reasoning or critical thinking evoked by argument ads. In other words, transportation is conceived as a holistic experiential state by a close connection of the audience to the story world and its emotional components. Summarizing these differences, Green and Brock (2000) note that “elaboration can be construed as a divergent process because individuals engaged in elaboration use information differently from that presented in a text (e.g., their prior knowledge, opinions, and real-world experiences) to evaluate the arguments presented” (p. 702). In this regard, they describe that transportation can be a convergent process as the individual is fully focused on the narrative itself.

The convergent process of transportation has been empirically demonstrated. By processing an ad in a narrative manner, audiences can transport themselves into the world suggested by the ad and may process the meaning of the ad for themselves (Bruner, 1986; Gerrig, 1993). Feldman, Bruner, Renderer, and Spitzer (1990) have shown that viewers of
narrative ads engage in the cognitive activities necessary to comprehend the story, such as establishing relationships among the narrative elements, fitting the story to their story schema, and developing causal inferences. Furthermore, Schank (1990) asserts that “understanding a story means being able to correlate the story we are hearing with one that we already know” (p. 21). This increased convergence has been demonstrated to better result in recall about the ad (Feldman et al., 1990)

Second, narrative processing also plays a role in creating, interpreting, and understanding emotions. It has been argued that emotions such as warm feelings arise in reaction to people or situations (Aaker, Stayman, & Hagerty, 1986; Escalas et al., 2004). These feelings may also develop in response to narratives. Narratives provide the characters and situations necessary to create an interpersonal or situational interaction. Stern (1994) argues that narrative ads are persuasive because they provide viewers with a coherent cause-effect progression, a key component of narrative. She claims that the persuasiveness of narratives works through empathy, which is defined as an involuntary and unself-conscious affective merging with another’s feelings (Escalas & Stern, 2003). Empathy enables viewers “to live in the character” (Langfeld, 1967, p. 137) and derive pleasure from the performance. In aesthetic film studies, the empathic response is described as the ultimate experience in which the spectator shares the emotions of characters and thus becomes the central figure in the performance (Aumont, Bergala, Marie, & Vernet, 1992). Viewers are actively drawn into narrative ads and therefore experience affective empathetic reactions. This is consistent with Deighton et al.’s (1989) empirical findings that drama persuades through emotional responses.

Empathy has been identified by some as primarily an affective phenomenon, referring to the immediate experience of the emotions of another person. Like transportation, however, some
researchers view empathy as primarily a cognitive construct (e.g., Barrett-Lennard, 1981; Katz, 1963; Rogers, 1986; Woodall & Kogler-Hill, 1982), referring to the intellectual understanding of another’s experience. Furthermore, some scholars hold that empathy has both cognitive and affective components (e.g., Brems, 1989; Hoffman, 1977; Strayer, 1987) or that it can be either cognitive or affective depending on the situation (e.g., Galdstein, 1983).

To minimize the confusion in understanding empathy, Gladstein (1983) used the term *cognitive empathy* to mean “intellectually taking the role or perspective of another person” (p. 468) and *affective empathy* to denote “responding with the same emotion to another person’s emotion” (p. 468) and stated that these two separate and distinct types of empathy were identifiable in the social psychology field. Smither’s (1977) observation of “empathy via contagion” and “empathy via role-taking” and Bachelor’s (1988) identification of cognitive and affective styles also supported Gladstein’s classification of the two types of empathy. With this in mind, empathy in the present study is operationalized as an affective response (Gladstein, 1983) in order to prevent conceptual overlapping with the concept of transportation, which is defined as a cognitive response (Escalas, 2004; Green & Brook, 2000) and which begins with the viewer’s taking on a character’s role and understanding the character’s situation (i.e., cognitive empathy).

Based on this distinctive perspective, Escalas and Stern (2003) developed a self-report ad response empathy scale that measures responses to another person’s emotion with the same emotion. In particular, this scale discerns between empathy and sympathy. Sympathetic observers remain “outside” a textual or real-life stimulus in a self-conscious, emotionally cognizant state. People who experience sympathy remain emotionally conscious of their personal lives and understanding but do not directly re-experience another’s feeling (Langfeld,
Thus, empathetic responses in narrative ads are exactly the sort of deep and compelling engagement that contemporary advertisers seek in order to gain the attention of their audience.

These two responses from narrative processing (i.e., transportation and empathy) have been shown to have an influence on attitude toward advertising messages. Narrative ads are often judged to be good ads (with correspondingly high attitudes towards the ad, hereafter referred to as Aad) because narratives are an interesting and entertaining form of communication (e.g., Deighton et al., 1989; Escalas, 1998). Furthermore, narrative processing may provide a more enjoyable form of processing (i.e., transportation; Green & Brock, 2000). These factors may favorably influence consumers’ assessments of narrative ads. In rhetorical criticism, McQuarrie and Mick (1996) explain that pleasure or enjoyment of the text is said to result in a more positive attitude toward the ad. In advertising literature, Stout and colleagues (Stout, Homer, & Liu, 1990; Stout & Leckenby, 1986) found that personally felt emotion (e.g., empathy) has a significant effect on positive attitudes to an ad.

In sum, narrative processing has unique differences from cognitive elaboration processing in terms of persuasiveness. When engaged in narrative processing, people think about ad information as if they were trying to create a story, imposing a beginning, middle, and end, attributing causality, and so on. Furthermore, they could feel emotions as a result of narrative processing which may evoke less criticism of the ad than analytical thought processing. The effectiveness of narrative processing primed by narrative ads has been empirically shown by three factors: transportation (e.g., Escalas, 2004; Green & Brook, 2000), empathy (e.g., Escalas & Stern, 2003; Goldstein, 1983), and attitude toward ad (e.g., Deighton et al., 1989; Stout & Leckenby, 1986). Transportation and empathy, as mediating roles, have been especially spotlighted by researchers in discussing the influence of narrative ads on attitude toward ads.
Two main topics have been discussed in this literature review so far. First, the elements necessary to a narrative ad and relevant theoretical investigations from drama studies to story grammar theories have been reviewed. Second, the function of narrative processing, specifically on the persuasive effectiveness of narrative ads, has been discussed. There is a major gap in this field of research and conceptualization, which is that most studies in this area have been focused exclusively on the receiver component of the advertising-communication process. There has been very little research done to delineate and analyze the specific message stimuli of narrative ads which are responsible for these effects.

In the present study the author will break down a narrative ad into content and format aspects, focusing especially on the influence of two message features – plot type as content and message sensation value (MSV) as format – on narrative processing and finally examine their main and interaction effects on narrative processing.

**Plot Type as a Feature of Message Content**

Plot as a feature of message content has been regarded as key to determine the content quality of narrative. In terms of message feature, however, plot has been defined as both content and format in media studies. Narrative, in particular drama, includes literary texts such as books and nonliterary performances such as film and covers subtypes such as tragedy, comedy, and mystery. Narrative differs from other forms of entertainment mostly in terms of the overarching plot (Vorderer & Knobloch, 2000). The appeal of narrative evolves with the plot. The term “plot” is ambiguous and rich in meaning, as it refers to both the specific events (actions or happenings) presented in a narrative (i.e., plot as content) and to the artistic arrangement of these events in the presentation (i.e., plot as format). From a literary point of view, the plot conveys a
certain moral (e.g., treachery leads to disaster), and thereby evokes emotions in the audience by a balanced and well-timed presentation of information about characters and events (Vorderer & Knobloch, 2000). Through plot, a narrative provides a representation of a series of causally and chronologically related events that make up dramatic conflict (Onega & Garcia, 1996), which occurs when “somebody wants something badly and is having difficulty getting it” (Howard & Mabley, 1993, p. 137). Thus, plot has to be understood through the development of characters’ dramatic conflict in a narrative. In this context, the semantic relationship between narrative components such as character, events, performance, and conflict and audiences’ responses rather than how the narrative components are arranged syntactically is of interest for the purposes of this study. In other words, plot is limited to content.

In the same vein, narrative ads are built of causal and temporal plots describing model characters’ conflicts. In advertising messages, however, there is one unique trait that is different from general narratives. Advertising messages have as their primary purpose to persuade the audience to purchase the advertised products. Further, advertising is a strategy by which advertisers want to attain their business goals. Ogilvy (1985) opens his book with this statement: “I do not regard advertising as entertainment or an art form, but as a medium of information. When I write an advertisement, I don’t want you to tell me that you find it ‘creative.’ I want you to find it so interesting that you buy the product” (p. 7). Industry icon Leo Burnett defined advertising as “selling corn flakes to people who are eating Cheerios” (Bendinger, 1993, p. 60), U.S. President Calvin Coolidge called it “the life of trade” (Bradley, Daniels, & Jones, 1960, p. 13), English professor S. I. Hayakawa (1964) termed it “a symbol-manipulating occupation” (p. 269), and media guru Marshall McLuhan referred to it as “the cave art of the twentieth century” (Fitzhenry, 1993, p. 19). A more modern definition, encompassing a broader range of media,
can be found in the *American Heritage Dictionary* (2000): “The activity of attracting public attention to a product or business, as by paid announcements in the print, broadcast, or electronic media.” In other words, the primary focus of advertising is how to produce advertising that sells. Thus, how a product (or a service) is inserted in a narrative ad, especially in plot, could be critical in terms of a narrative form.

Historical advertising trends in creative ad production may assist in understanding the role a product plays in the plot of narrative ads. The roles of a product in advertising have evolved broadly within two methods. Until the 1960s in the U.S., advertising production focused intensely on the direct appeal of an attribute or function of a product. This type of presentation method is based on ad strategies such as “pre-emption” or “unique selling proposition.” Throughout the era of creative advertising evolution in the late 1960s, however, products began to be presented in a minor way (e.g., a very small image of a product in the bottom corner of the ad) or sometimes not at all in advertisements (Bendinger, 1993). Today these two ad production styles coexist depending on the advertiser’s appeal intention for the product. In current advertising strategies, the role of a product in narrative ads can be either a centered casting of active involvement with characters and their conflict situation in the plot or a non-centered casting in which the product simply assists or is not even present physically and thus has no influence on the characters and conflicts in plot.

**Product-centeredness in Plot**

In a product-centered plot, the product has an important role in constructing the narrative ad message. In this plot type, the product is strongly involved with the main character(s) and the conflictive situation in which the character wants something badly and is having difficulty
getting it. Most importantly, this type of plot emphasizes the attribute or function of the product. There are two broad types of product-centered plot: the product leads to the resolution of the conflictive situation or it is the source of the conflict.

Narrative ads frequently depict a product as a resolution of dramatic conflicts which the characters encounter. In this plot type, a character can attain a goal via an attribute or function of a product which can remove a conflictive situation or event. A commercial for the painkiller Aleve, for example, tells a story about a woman who feels sudden muscle pains in the middle of jogging and sits on a bench with a pained facial expression. Her friend who is running with her asks why she has stopped running. When she hears about the pain, the friend gives her Aleve and says, “Aleve works very quickly and leaves you pain-free for 24 hours.” After the statement, the Aleve product is presented in the center of the screen; in the background, the characters are running again. This short commercial (15 seconds) contains the necessary elements of narrative: chronology and causality. The product, Aleve, takes a role to resolve the conflict (the protagonist wants to get rid of her muscle pain).

The second type of product-centered plot in narrative ads features the product as the source of a conflict. In this type of plot, a conflict situation or event is mostly caused by a character’s desire for a product. Specifically, the desire for an attribute or function of a product or sometimes the value of a product causes a problematic situation for the characters. For example, a commercial for AXE, a male body spray product, shows a woman sniffing something appealing and then starting to run very quickly in the direction the smell came from. Her greedy expression is featured in a close-up. The next scene shows a group of women running competitively with her in the same direction, and the scene after that shows hundreds of women swimming in the same direction in the ocean. The next scene shows thousands of women
running to the same spot in the woods, where a man is spraying AXE on his body. In the last scene, shot apparently from the sky above, innumerable women are about to reach him from all directions. A narrator says, “Spray more, get more. The AXE effect.” This commercial also has essential elements of narrative. In this ad, the product’s effect is exaggerated to create a situation in which all women crave the man who is using the product. This type of plot can also be categorized as an ad message that emphasizes a product’s attribute or function.

**Non-product-centeredness in Plot**

Another style of narrative ads employs a non-product-centered plot. These ads might have a different kind of appeal in that they convey implicitly rather than explicitly an attribute or function of the product. In terms of processing types, it can be assumed that advertisers who decide to use a non-product-centered plot may intend to rely on the audience’s natural active inferencing of the relationship between a dramatic situation (or event) and a product’s attribute or value. This processing depends on association or an automatic thinking process. There are broadly two plot styles in this category: the product assists or is only indirectly involved in the conflict, or the product is not present at all or is present only in the background.

In the first type, the product takes an assistant role in the plot of the ad and is involved only indirectly in conflictive situations. The Pizza Hut ad previously described fits this category. In the narrative of the commercial, Pizza Hut is not involved directly with the dramatic situation of a boy miraculously catching a baseball and winning a game. However, the victory celebration occurs at a Pizza Hut, and the boy is featured in the commercial eating a piece of pizza and smiling. In this ad, we can easily infer the relationship between the bliss of the boy and his team and the attributes of Pizza Hut. Through inferencing, viewers can associate the boy’s happiness
with a relevant experience in their own lives, which elicits an empathetic response. This favorable affect leads to a positive attitude toward a product or brand.

In the second type of non-product-centered plot, a product is not presented or is placed as a background object without any obvious role in the main plot. For instance, John Hancock, a life insurance company, produced a commercial featuring a woman on a bus. She gets a text message which is presented on the top left-hand side of the screen: “Looking back, I guess I wasn’t prepared.” She responds with the message, “We’ll make it back. The economy is cyclical. History is always repeating itself.” The next text message she receives reads, “So how do I avoid repeating my mistakes?” After reading the last message, she stares out the bus window with a pensive facial expression. A narrator says, “John Hancock. The future is yours.” In this story, John Hancock (i.e., a service or attribute) was not involved in any role to resolve or create the conflict that she is thinking about, but we can infer that John Hancock may be an answer to this conflict.

Non-product-centered plots may have apparent purposes that lead audiences to activate more empathetic responses (compared with product-centered plots) toward the character’s situation and to naturally infer the relationship between the conflictive situation and a product, specifically a product’s attribute or function. Theoretically, this plot style conditions viewers to link inferencing or automatic thinking about the narrative situation with their attitude toward the ad (see Sloman, 1996 for more on associative or automatic thinking process).

Critical points used to decide whether a product has a centered role or a non-centered in a plot should be stated clearly. If the other parts of the narrative in an ad make sense semantically with the product removed from the ad, the message does not give the product a centered role in
plot. If the message is hard to understand without the product’s role, the product has a centered role in the plot. For instance, we cannot know why the women run toward the man in the AXE ad or how the woman is able to run again in the Aleve ad if the products are deleted.

In the present study, two plot types of narrative ads as a feature of message content will be considered: product-centered plot and non-product-centered plot. Narrative ads may lead to more favorable responses than informative ads because the former are more likely to prompt a narrative form of processing, whereas the latter are more likely to trigger an analytical form of processing. While it seems reasonable to assume that narrative ads will trigger a narrative form of processing, it is proposed that this will not necessarily always be the case. Instead, viewers may engage in a more analytical processing style in response to a narrative ad depending on the type of plot. Specifically, the author predicts that there will be significantly different effects on narrative processing between product-centered plot and non-product-centered plot. The persuasion knowledge model developed by Friestad and Wright (1994) provides a theoretical basis for understanding the different effect between the two plot types.

**Persuasion Knowledge Model**

In the persuasion knowledge model (PKM), people develop active knowledge structures about persuasion and draw on this knowledge to recognize and cope with persuasive attempts to influence them (Friestad & Wright, 1994, 1999). Persuasion knowledge consists of viewers’ beliefs about persuasion, such as determining marketer’s goals, tactics a marketer may employ to achieve the goals and how these tactics affect psychological factors such as getting attention, generating interest, or eliciting emotion, and how the individual can effectively manage these persuasion attempts (Friestad & Wright, 1994; Kirmani & Zhu, 2007). Wright (1985) refers to
this persuasion knowledge as a schemer schema. The PKM suggests that a marketer’s actions can cause people to activate their persuasion knowledge. When this happens, they regard the marketer’s claims with greater suspicion and may infer that the claims are deceptive and manipulative. These inferences, in turn, typically lead to resistance to persuasion (Campbell & Kirmani, 2000; Carlson, Bearden, & Hardesty, 2007).

In the PKM, however, inference of manipulative intention is not always occurred. The key factor in this discussion of PKM is that it does not matter whether the advertiser intended the action to be a tactic or not. What matters is whether the ad viewer perceives the action as a tactic. Some tactics might be effective as long as they remain tacit. Once a person becomes aware of a tactic, though, the effect is no longer automatic and is eliminated. This is called “change of meaning” (Friestad & Wright, 1994). To combat this, Magee (2009) argues for the principle of reinforcement of meaning. He asserts that if a marketer’s cue is perceived as a tactic but is evaluated under persuasion knowledge as being appropriate or respectful, the effectiveness of that tactic is heightened, not minimized. The difference between a change of meaning and a reinforcement of meaning is based on a qualitative difference between types of persuasion knowledge; it is not based, however, on any expert/novice distinction that derives from the amount of persuasion knowledge a viewer possesses.

In terms of information processing, Friestad and Wright (1994) have tried to explain a PKM that features the activation of cognitive resources. Persuasion knowledge operates during heuristic processing and systematic processing and under conditions of both low and high involvement but is subject to cognitive load. Persuasion knowledge, when highly accessible, exerts a main effect on evaluations of the persuader. When less accessible, this knowledge influences perceptions only under conditions of lower cognitive load (Campbell & Kirmani,
An increase in the use of persuasion knowledge in response to an ad, for example, can result in a greater cognitive load, and attentional efforts for the ad then shift away from deeper processing because a change of meaning occurs.

PKM holds insights into persuasion effects and consequently has been used to study the effectiveness of product placement (Bhatnagar, Aksoy, & Malkoc, 2004; Cowley & Barron, 2008; McCarty, 2004), guilt appeals (Hibbert, Smith, Davies, & Ireland, 2007), perceptions of firm effort (Morales, 2005), and evaluations of sales representatives (De Carlo, 2005). Furthermore, some researchers have found that certain characteristics of ad execution may increase the perception that the advertiser is trying to manipulate the audience. For instance, the use in ads of biased endorsers (Kirmani & Zhu, 2007), the excessive use of rhetorical questions (Ahluwalia & Burnkrant, 2004), negative comparisons (Jain & Posavac, 2004), and borrowed interest appeals (Campbell, 1995) may make manipulative intent salient and may cause consumers to activate their persuasion knowledge. These processes, in turn, typically lead to resistance to persuasion, decreasing the effectiveness of the ads.

In transportation studies, the influence of message content has been also regarded as an important variable to influence on the transportation experience. Green and her colleagues (1996, 2004, & 2008) have proposed five message factors that tend to influence transportation in narrative persuasion: artistic craftsmanship of the narrative, difficulty of the narrative, pre-reading instructions, modality, and perceived realism of the narrative. Among these five factors, the influence of pre-reading has relevant hypothetical implications for PKM in the context of narrative ads.
Although no one has investigated directly the relationship between activating persuasion knowledge and transportation in response to advertising messages, relevant studies might provide a rationale for establishing a hypothesis. According to Green and Brook (2000), pre-reading instructions that asked the viewer to focus on surface aspects of a narrative message decreased the degree of transportation. In the advertising context, two studies showed convincing results for this rationale. Escalas (2007) investigated the influence of pre-reading instructions that evoked ad viewer’s skepticism and asserted that instructions moderate transportation in ads. Rather than Escalas’s (2007) direct instructions, Wentzel et al. (2010) probed the effect of indirect instruction presented as rhetorical questions that were inserted in print ad stimuli and found that ad viewers perceived the instruction as salient manipulative intention and responded with negative attitudes toward ads.

Based on the above rationale, the effect on narrative processing of the extent to which manipulative intent caused by the role of a product in a narrative plot is perceived by the viewer will be investigated in this study. Specifically, it is predicted that if viewers perceive a product-centered plot as associated with cues that make the manipulative intent of the advertiser more salient, the level of transportedness induced by narrative ads may differ from that induced by a non-product-centered plot. This line of reasoning is summarized in the following hypothesis:

Hypothesis 1: Narrative ads that employ a product-centered plot will show a lower level of transportation compared to those with a non-product-centered plot.

Empathy as an affective response to a narrative ad can be also influenced by the plot type. As discussed earlier, viewers who activate their persuasion knowledge elicit skeptical elaborations on ad messages. In empathy studies, unfavorable cognitive responses such as
discounting (Ahluwalia, 2000; Keller, 1999) and counter-argument (Dillard & Shen, 2005) seem to impact the decreasing empathy responses. These results could be consistent with the influence of a product-centered plot on empathy in the context of a narrative ad. Based on this rationale, hypothesis 2 is formulated as follows:

Hypothesis 2: Narrative ads that employ a product-centered plot will show a lower level of empathy compared to those with a non-product-centered plot.

The function of inferencing of manipulation intention should be examined because hypotheses 1 and 2 assumed the mechanism of PKM. The theory premises that actions in persuasive context can cause people to activate their persuasion knowledge with greater suspicion and inference that the marketer is deceptive and manipulative. This reasoning does not imply that people always activate their persuasion knowledge when they are exposed to an influence attempt via media. A manipulative cue could be perceived as a tactic by some ad viewers. Once this occurs, the marketer’s action changes meaning and the effectiveness is minimized or lost entirely. It does not matter whether the advertisers intended the action to be a tactic or not; what matters is that the ad viewers perceived the action as a tactic. Some tactics might be effective as long as they remain tacit. Once a person becomes aware of a tactic, though, the effect is no longer automatic and is eliminated.

To validate the PKM in narrative ad content, it is necessary to investigate the influence of plot type on inferences of manipulation intention in order to further understand the working mechanism of plot type on narrative processing. Specifically, inferences of manipulative intent will act as a mediator between product-centered plots and narrative ad processing, transportation, and empathy. In contrast, narrative ads with a non-product-centered plot should not elicit
relatively more inferences of manipulative intent when focusing on the influence of a product’s role in the plot, so narrative processing will not be harmed by the plot type. Thus, the following hypothesis is formulated:

Hypothesis 3: Inference of manipulative intent will mediate the effects of plot type on the level of transportation and empathy.

**Message Sensation Value as a Feature of Message Format**

The concept of exposure is central to all theories of media effects. Individuals must be exposed to a message, either directly or indirectly, before effects can occur. Exposure has been operationalized in a variety of ways (Slater, 2004), but most authors agree that successful persuasion is contingent on whether an individual attends to and processes message content (e.g., Eagly & Chaiken, 1993). As a result, media effects literature is full of investigations of the influence of message formats which are responsible for sensory reception of incoming information of media. There are two broad focuses in the studies: the structural effects on attention and arousal and the influence of structural features as distracters or enhancers on processing massage content.

Message Sensation Value (MSV) has two relevant points for the present study. This study represents the first attempt to investigate the influence of format features of narrative ads on narrative processing. Many researchers studying the impact of format have restrictively focused on the effect of specific structural features (e.g., camera pace). However, MSV has been developed as a whole set of message structural features including visual, audio, and content structure. Thus a study approach with broad inclusion of message structural features rather than narrow focusing on the feature may be beneficial in the context of the present study. Second,
although measures of MSV have been developed to test the effectiveness of public service announcement (PSA) advertisements, it is plausible to apply MSV to narrative ads because PSA ads are frequently presented in narrative forms (Morgan et al., 2003). In light of these concepts, MSV will be focused on in the present study to explain the formative impact of narrative ad messages.

MSV as a feature of message format represents the degree to which structural and audiovisual features of a message elicit sensory, affective, and arousal responses (Palmgreen et al., 1991). Originally the MSV concept was applied primarily to PSA messages directed toward adolescents who are sensitive sensation seekers. Furthermore, most researchers in this field have linked MSV and perceived MSV (PMSV), and the concept of MSV has usually been operationalized as PMSV (Stephenson & Palmgreen, 2001). As research on MSV has progressed, however, researchers have realized that the distinction between subjective reactions to the message (i.e., PMSV) and the structural and content features (i.e., MSV) contributing to these reactions is important (Stephenson & Palmgreen, 2001). In light of this realization, researchers have begun to investigate the influence of message structural features themselves (Morgan et al., 2003).

Morgan et al. (2003) explained that MSV consists of three structural features including formal video features (e.g., cuts, edits, special visual effects, etc.), formal audio features (e.g., sound effects, music, voiceover, etc.), and content format features (e.g., act out vs. talking head, surprise/twist ending, etc.). Although some researchers may consider the last category of features as content rather than format, the original authors of the MSV index suggest that these “content” variables “do not have to do with specific consequences or arguments, but are more concerned with how these more specific features are arranged (e.g., surprise/twist ending) or
portrayed (e.g., acted out versus talking head)” (Morgan et al., 2003, p. 523). Thus, all MSV features are considered format features for the purpose of this study.

The limited capacity model of information processing (Lang, 2000; Lang, Dhillon, & Dong, 1995; Lang, Newhagen, & Reeves, 1996; Thorson & Lang, 1992) provides theoretical explanations about how structural features of messages (e.g., MSV) work in an ad viewing situation. This theoretical perspective has a premise that viewers have a limited cognitive ability to select, encode, store, and retrieve the information contained in televised stimuli. Furthermore, paying attention to stimuli can be both a function of conscious and unconscious processing of decision on the part of viewers. Although they are able to actively control their attention to stimuli from their goals, interests, and intentions, structural features of messages could trigger automatic or unconscious attentional processes.

There have been considerable attentions on structural features of media messages, particularly in the work of Lang and her colleagues, and literatures have been shown to have profound effects on a number of important outcomes. Manipulations of structural features have been shown to affect attention to the message (Geiger & Reeves, 1993; Lang, 1990; Lang et al., 1993; Lang et al., 1995; Lang, Zhou, Schwartz, Bolls, & Potter, 2000; Palmgreen et al., 1991), produce changes in physiological arousal such as heart rate and skin conductance (Lang, 1990; Lang et al., 1995; Lang, Bolls, Potter, & Kawahara, 1999; Lombard et al., 2000), increase emotional arousal (Detenber, Simon, & Reiss, 2000), increase or decrease memory for the message (Donohew, Lorch, & Palmgreen, 1998; Lang, 1990, 1995, 2000; Lang et al., 1999; Lorch et al., 1994; Zhou, 2004, 2005), affect the cognitive capacity required to process the message (Lang, 2000; Lang et al., 1995), and affect the favorability of viewers’ judgments of the message or even the persuasiveness of the message (Donohew, Palmgreen, & Lorch, 1994;
Hitchon & Thorson, 1995; Palmgreen et al., 1991; Yoon et al., 1999). Thus, structural features of messages such as cuts and edits, pacing, sound, use of color, and incorporation of emotionally intense material are linked to greater attention, arousal, memory for, and liking of the message, all of which are linked to message effectiveness.

In terms of measurements, the ability of MSV features to elicit arousal and attentional reactions has been demonstrated using both psychophysiological measures such as heart rate and skin conductance (Lang, 1990; Lang et al., 1999; Lang et al., 1995; Wei & Zhou, 2010; see more Lang, Potter, & Bolls, 2009) and self-reported measures (Everett & Palmgreen, 1995; Kang, Cappella, & Fishbein, 2006; Stephenson & Palmgreen, 2001). Although various researchers have shown that individual MSV features such as edits, cuts (Basil, 1994; Geiger & Reeves, 1993; Lang et al., 2000; Niederdeppe, 2005), visual graphics (Thorson & Lang, 1992), pace (Bolls, Muehling, & Yoon, 2003; Lang, 1990; Lang et al., 1999; Yoon et al., 1999), and emotionally intensive messages/images (Hitchon & Thorson, 1995; Zhou, 2004, 2005) have some impact on attention, arousal, memory, and cognitive capacity (Lang, 1990), direct evidence about the impact of MSV as a composite feature on attention and message processing is limited (Kang et al., 2006). Grouping a set of structural features under the concept of MSV may or may not produce the same effects in the same strength or in the same direction.

In sum, the limited capacity model of information processing explains how structural features of TV messages influence the effectiveness of messages by considering viewers’ cognitive allocation. Within this theoretical basis, MSV has been empirically demonstrated to have an influence on message processing. Specifically, depending on the levels of MSV, the influence on arousal and attention can be very different.
In terms of stimuli, MSV has been investigated mainly with PSAs. In the current study, the concept of MSV will be applied in a different context—narrative advertising messages. In testing the application, it is necessary to investigate the influence of MSV of narrative ads on arousal and attention. Theoretically, high MSV in narrative ads will elicit stronger arousal responses and lead the viewer to pay closer attention to main content message processing (e.g., how main character evolved, how story plot developed, or how conflict situations were resolved) than low-MSV ads. Thus, the following hypotheses are formulated:

Hypothesis 4: Participants will show a higher arousal state with narrative ads of high message sensation value than with those with low message sensation value.

Hypothesis 5: Participants will pay more attention to narrative ads with high message sensation value than to those with low message sensation value.

A narrative message elucidates how an initial event causes a character to develop goals and a course of action which result in certain outcomes (Pennington & Hastie, 1986). A narrative structure gives meaning to what otherwise would be unrelated, isolated events and allows individuals to draw causal inferences (Woodside, Sood, & Miller, 2008). This processing of narrative messages leads people to be transported into the world of the narrative and evokes an empathy response. In other words, these experiences give viewers a more realistic vicarious experience of the emotional consequences (Escalas, 2004, 2007; Padgett & Allen, 1997; Woodside, Sood, & Miller, 2008).

Messages high in sensation value are characterized as novel, creative, exciting, intense, dramatic, and fast-paced (Stephenson et al., 1999) and are regarded as more demanding of resources for information processing (Lorch et al., 1994; Palmgreen et al., 2001; Stephenson &
These characteristics of high MSV in a narrative ad may compel viewers to utilize more resources and lead them to deeper immersion (i.e., transportation) and stronger affective experience (i.e., empathy) during narrative processing. Thus, the following hypotheses are stated:

Hypothesis 6: Narrative ads with high message sensation value will lead to a greater level of transportation compared to those with low message sensation value.

Hypothesis 7: Narrative ads with high message sensation value will lead to a greater level of empathy compared to those with low message sensation value.

**Plot Type, Message Sensation Value, and Narrative Processing**

Two message factors (plot type and MSV) have been articulated, focusing on their influences on narrative ad processing separately. Previous theoretical conjectures regard a product-centered plot as an inhibitor and high MSV as an accelerator in narrative ad processing. It is apparent, however, that two message factors exist in a message. When plot type and MSV collide in a message, their impact directions could be changed by each other’s influence. More specifically, the moderating effect of MSV on the relationship between plot type and narrative processing needs to be investigated. Theoretical explanations about the moderating effect could be initiated from the literature on arousal and the impact of arousal on analytic processing.

Arousal induced by a message consumes cognitive resources. One important consequence of this effect is that arousal induces restriction in attentional focus (Kahneman, 1973). Higher levels of arousal lead to more attention toward and memory for the emotional content that has produced the arousal (Friestad & Thorson, 1985; Kahneman, 1973). Highly aroused people also tend to rely on fewer and more salient attributes to make their decisions.
(Mano, 1992, 1994). Sanbonmatsu and Kardes (1988) found that in a high arousal condition induced by exercise, people are more likely to depend on their emotional reactions and less likely to rely on argument (e.g., inferencing manipulation intention) to make evaluations of ad messages. Moreover, according to Baron et al. (1992), arousal increases one’s attention to internal reactions but reduces one’s attention to external persuasive arguments (see more Bodenhausen, 1993). Examining the impact of the Super Bowl on consumers’ recall of ads, Pavelchak, Antil, and Munch (1988) found that fans in the winning and losing city recalled fewer ads than viewers in other cities. More specifically on their study, the hypothesis was that the difference in recall could be explained by the fact that fans in the cities represented by the playing teams are highly aroused by the game, which interferes with their ability to process external messages. These findings suggest that people who are exposed to emotionally arousing messages may rely more on their emotional reactions and less on the actual message content to evaluate the message.

The function of arousal and attention in message processing is highlighted by Lang (2000), who points out that the arousal and attention demanded by structural features steals cognitive resources that might otherwise be devoted to the content of the message. This is particularly important when considering 30-second (sometimes 15-second) narrative ads: a fast-paced, MTV-style spot high in sensation value may elicit the arousal and grab the attention of viewers, but whether audience members are able to comprehend and evaluate the message should be a vital consideration.

In this study, a product-centered plot is hypothesized to activate viewers’ inferences of manipulation intention and subsequently stimulate analytic processing, which requires the use of extra cognitive effort and resources. However, if the high MSV itself demands extra cognitive
resources, viewers may allocate fewer resources for the inferencing process because resources are being “stolen” by the sensations the ad arouses. In other words, the inference of manipulation intention activated by a product-centered plot in a narrative ad may be affected by the function of high MSV to steal extra cognitive resources for narrative processing. In a product-centered plot, there will be a significant difference of the degree of transportation and empathy between high and low MSV, showing that high MSV may lead to a greater level of narrative processing than low MSV.

In a non-product-centered plot, however, the influence of MSV on narrative processing will have a different, more specifically opposite, direction. Lang and her colleagues have investigated the cognitive overload state of viewers in response to media messages (e.g., Lang, 2000, 2005, 2006; Lang & Basil, 1998; Lang et al., 2006, 2007; Fox, Park, & Lang, 2007). The theory (Lang, 2005, 2006) is based on the premise that because the human brain has only a limited supply of processing resources, unlimited resources cannot be allocated to process a message, meaning that processing is nearly always necessarily incomplete. When the exigencies of the processing task exceed the resources available in the limited capacity pool, cognitive overload results (Lang, 2000). At the point of cognitive overload, all processing resources have been allocated to the various processes, but more are required to complete the ongoing processing task. When this happens, processing suffers.

Specifically, cognitive overload means that there are insufficient resources available to perform information processing at the level required by the message (Lang, 2006). When cognitive overload occurs, primary task performance (e.g., narrative ad processing) suffers, leading to poor encoding of information and subsequent decreased storage and retrieval of information of the message. Some researchers suggest that there are several reasons why
cognitive overload happens (Lang et al., 2006; Fox et al., 2007). Television viewers are susceptible to be influenced by message complexity that varies in terms of structural features such as number of camera changes or sound effects (i.e., MSV). These structural features elicit orienting responses which result in an automatic allocation of resources to process information from the message. Therefore, the more complex the message structure, the more resources are allocated to processing the message. However, too much complexity of the message can use up the available resources of the viewer. At this point, viewers give up on trying to get the message.

Lang has explained cognitive overload using an automatic processing perspective which has two broad conceptualizations. First, overload is defined very narrowly as a statistically detectable decrease in recognition performance. This does not mean that participants feel overloaded, that they notice that they are processing the message poorly, or that they stop trying to process the message because it is too hard. Indeed, previous research shows that structurally complex messages (e.g., high MSV) which elicit this very specific type of overload are rated as more enjoyable and positive than messages which do not elicit recognition performance decrements. Second, if the shift were controlled then all or most users would have to be continuously deciding in concert, from one message to the next, whether to follow the instructions (e.g., to pay close attention to the narrative ads). There is no sign that they are doing this and it seems highly unlikely that all subjects would consistently make the same controlled decisions at the same point in the messages—especially given that the messages are presented, generally, in random order.

In this vein, it can be predicted that in the condition of a non-product-centered plot, viewers might voluntarily allocate their resources to understanding and immersing themselves in a narrative ad and might correspondingly feel transported and empathetic to the ad without any
detachable cues from a product-centered plot. However, high MSV in a non-product-centered plot demands more resources from viewers and might lead to cognitive overload because their resources are mainly being used for narrative plots of ads as a primary task performance. When viewers are overloaded and unable to perform well, they experience less enjoyment (Lang, 2006). Similarly, when media stimuli are overly simple, boredom results and enjoyment is reduced. An enjoyable and favorable experience is induced by transportation and empathy while watching narrative ad messages because narratives are an interesting and entertaining form of communication (e.g., Deighton et al., 1989; Escalas, 1998). Hence, high MSV could lead to less transportation and empathy response compared to low MSV in a non-product-centered plot.

Based on these rationales, the following hypotheses are formulated:

Hypothesis 8: There will be a significant interaction between plot type and MSV such that in the product-centered plot, narrative ads with high MSV will lead to a greater level of transportation than those with low MSV. In the non-product-centered plot, however, narrative ads with low MSV will lead to a greater level of transportation than those with high MSV.

Hypothesis 9: There will be a significant interaction between plot type and MSV such that in the product-centered plot, narrative ads with high MSV will lead to a greater level of empathy than those with low MSV. In the non-product-centered plot, however, narrative ads with low MSV will lead to a greater level of empathy than those with high MSV.

Although the present study deals with the relationship between narrative ad and ad processing, it is also necessary to measure the relationship between ad processing and attitude
toward the ad. The experience of transportation from watching narrative ads will lead to a more enjoyable and favorable form of processing (Green & Brook, 2000). According to McQuarrie and Mick (1996), pleasure or enjoyment of the text results in a more positive attitude toward the ad. Escalas (2004) and Zheng (2010) directly measured the relationship and found that more transported ad viewers were more likely to exhibit favorable ad and brand attitude and behavioral intentions. Thus, the following hypothesis is stated:

Hypothesis 10: Transportation will be associated with attitude toward ad in a positive direction.

Furthermore, Stout et al. (1990) found that personally felt emotion (e.g., empathy) has a significant effect on positive attitudes to an ad. According to Escalas (2004), the positive emotions generated during narrative processing are transferred to the ad message. Thus, the following hypothesis is stated:

Hypothesis 11: Empathy will be associated with attitude toward ad in a positive direction.
CHAPTER THREE

PRETESTS

This chapter contains the descriptions of two pretests. The first pretest delineates the procedure of selecting stimuli and reports the coders’ agreement of coding scheme. The second pretest had as its goal to demonstrate that the manipulation of the stimuli was successful through surveying with subject samples.

Pretest One: Stimulus Selection

Materials

Commercials used as stimuli were selected based on the following criteria: (a) primetime TV advertising, (b) 30-second duration, (c) excluding local product/service ads, and (d) relevance to college students. For the selection, television programming was recorded each night during primetime hours (7:00 to 11:00 p.m.) on the four major networks (NBC, FOX, CBS, and ABC) from late July to August in 2009. Specifically, 56 hours over a period of 14 days were recorded for each network (total 224 hours). After removing program content from the recordings, only advertisements which met the criteria were selected as the raw pool sample.

Narrative ad. Based the definitions of Stern (1994) and Padgett and Allen (1997), narrative ads were identified and selected from the raw pool. According to the definitions, ads are considered to be narrative if they consist of actors with motives, an event sequence which has a beginning, rising action, turning point, falling action, and resolution (Stern, 1994), and a setting
that has physical, social, and temporal components (Padgett & Allen, 1997). Based on this definition, if an ad has narrative content components (actors, actions, and conflicts) and structural components (causal and temporal plot), it is considered a narrative ad. In terms of time order of temporal plot, most narrative ads have a linear, story-like sequence of events. However, some ads have a non-linear ordering. For example, the conclusion of a narrative ad can be communicated first, followed by the events that led up to this conclusion. These non-linear ads were also included as samples if they satisfied the criteria discussed above.

All narrative ads selected for the stimuli pool were self-contained narrative type ad which contained complete stories in themselves.

**Plot types.** Two plot types of narrative ads were suggested by the literature review. A product-centered plot is defined as a plot in which a product plays a role in the ad either to resolve a conflict situation the main character(s) encounter or as the source of a conflict. In a non-product-centered plot, a product is not involved with the main character(s)’s conflict situation or appears in an assistant role in the ad.

The criterion to distinguish between a product-centered and non-product-centered plot is that when a product is removed from an ad, the other parts make sense as a narrative (i.e., causality and chronology). In other words, the ad does not give the product a central role in the plot. If the message of the ad cannot be understood when the product role is deleted, the product has a central role in the plot of the ad. Based on this criterion, a total of 10 narrative ads were selected as having product-centered plots and 10 narrative ads were defined as having non-product-centered plots.
Moreover, the ad duration was controlled for in order to prevent unexpected effects from different lengths of ad videos. For this reason, all 20 narrative ad stimuli selected are 30 seconds in length. Series, campaign-style sequential ads which repeat very similar structures of message plot with different characters or situations were not included as the final stimuli because it is hard to say whether their effects come from the message itself.

**Message Sensation Value (MSV).** MSV consists of visual, audio, and content frame features (see Morgan et al., 2003). Visual features include cuts, special visual effects, slow/fast motion, unusual colors, and intense images. For the purposes of this study, another visual dimension was added: emotional facial expressions. “Cuts” refers to the number of times the camera cuts from one visual scene to the next and will be coded as 0, 1, or 2 depending on the count of cuts: 0 = low (0-6 cuts), 1 = moderate (7-14), and 2 = high (more than 15 cuts).

“Special visual effects” are portrayals of anything beyond the range of human ability, such as morphing or computer manipulation of images and are coded as 0 (absent) and 1 (present).

“Slow motion,” which means the photographic slowing of real-life action through technical intervention, is coded as 0 (absent) and 1 (present). Fast motion is also coded as 0 (absent) and 1 (present). “Unusual colors” are those outside the range of colors normally perceived in real life and are coded as 0 (absent) and 1 (present). “Intense images” are intense or exaggerated images, such as needles going into arms, guns pointed at heads, or death, and are coded 0 (absent) and 1 (present).

Considering the traits of narrative ads, the dimension of emotional facial expression was added to the category of visual features. The face is believed to be the primary nonverbal channel for the communication of emotion (Ekman, Friesen, & Ellsworth, 1972). In addition to transmitting information, facial expression of emotion elicits vicarious emotion in observers, a
phenomenon called “emotional contagion” (Hatfield, Cacioppo, & Rapson 1993; Neumann & Strack 2000). Examples of corresponding or contagion responses would be smiles eliciting smiles or tears eliciting tears (Hatfield et al., 1993). For the purposes of this study, “emotional facial expression” is operationalized as an actor’s facial expression of emotion in close-up or at least a bust shot and includes smiles, joyfulness, or crying. This is coded as 0, 1, or 2 depending on the count of such shots: 0 = low (0-1 shot), 1 = moderate (2-3 shots), and 2 = high (more than 4 shots).

Audio features include sound saturation, music, and sound effects. “Sound saturation” refers to background sound throughout the narrative ad including street noise or other sounds, as opposed to simply having a person talking throughout the ad, and is coded as 0 (absent) and 1 (present). “Music” stands for background music in the ad and is coded as 0 (absent) and 1 (present). “Sound effects” are unusual sounds heard in the ad that could not occur in real life in that situation, including gongs and other noises, and are coded as 0 (absent) and 1 (present).

Content structural features include unexpected format and surprising/twist ending. “Unexpected format” refers to whether the image and message are interchangeable with those of other narrative ads and is coded as 0 (absent) and 1 (present). “Surprising/twist ending” refers to the presence of a climactic, shocking end to the narrative ad. If the end cannot be predicted, it has a surprising/twist ending. This factor is coded as 0 (absent) and 1 (present). Definitions of MSV also include the feature acted out (as opposed to talking head), which means that the attribute or function of a product or benefits of using a product is shown rather than described by a narrator. This factor was not considered in this study because the actor’s performance is a necessary component of a narrative ad.
The MSV total score was calculated as the sum of all individual MSV features.

**Results**

After receiving training, three coders (including the author) separately analyzed the same 20 ads considering the condition of narrative ad, plot type (product-centered or non-product-centered), and level of MSV.

In terms of narrative ad, four coding units were suggested, including actors, performances, conflicts, and causal and temporal plot, and these components were coded as 1 (exist) or 0 (none). Intercoder reliability of narrative ad coding scheme was acceptable (Krippendorff’s α = .89). According to Krippendorff (2004), a coefficient of .90 or greater is nearly always acceptable and .80 or greater is acceptable in most situations. After coding the narrative ad scheme, the three coders decided to exclude two ads because they did not satisfy all the criteria for a narrative ad scheme.

As a next step, the coders coded plot types of the stimuli (narrative ads). The plots of two of the narrative ads created confused results among the coders, so they were excluded. After this exclusion, an analysis of the coding of plot type for the 16 remaining narrative ads showed an acceptable intercoder reliability (α = .92).

As a final coding factor, MSV, consisting of visual, audio, and content frame features, was coded. Visual features (α = .82) and audio features (α = .96) met a level of acceptance, but content frame feature (α = .68) failed to reach the acceptable level suggested by Krippendorff (2004). After additional training for the three coders, the content frame feature was coded again, and the result was acceptable (α = .85). In sum, intercoder reliability of the MSV coding scheme was acceptable (α = .87).
A total of 16 ads were found to fulfill all necessary conditions which were operationalized. Ten of the ads had a product-centered plot and six had a non-product-centered plot. Considering the four conditions, eight narrative ads were selected for the final stimuli as follows: two ads with a product-centered plot and high MSV, two ads with a product-centered plot and low MSV, two ads with a non-product-centered plot and high MSV, and two ads with a non-product-centered plot and low MSV. Descriptions of the ad brand/product names, conditions (plot type, level of MSV), and brief plots of all eight narrative ads which were selected as final stimuli can be found in Appendix A.

**Pretest Two: Checking Manipulations**

The second pretest was conducted to measure the manipulations, plot type and MSV level, to ensure successful production of stimuli.

**Participants**

All participants were recruited from two classes in the Department of Mass Communication at a large Southeastern university in the United States. Participants were rewarded with extra credit for their participation. The participants in this pretest were not included in the main experiment. A total of 52 undergraduate students participated in this study. Participant ages ranged from 19 years to 23 years ($M = 21.2$, $SD = 1.66$), with 72% female ($n = 37$) and 28% male ($n = 15$).
**Procedure**

After the study’s purpose was explained, participants viewed the eight stimulus ads which were selected from pretest one on a classroom projection system and filled out a questionnaire after viewing each stimulus.

**Measures**

**Plot type.** Two items addressed participants’ perception of plot type: “In this ad you just saw, the product (or a service) was a key to solve the conflict the main character(s) encountered” and “In this ad you just saw, the product (or a service) was the source leading to the conflict the character(s) encountered.” The answers were on a 5-point scale ranging from 1 (completely disagree) to 5 (completely agree). Considering plot type of each stimulus, the perception of plot type was scored. Higher average score indicates a product-centered plot message.

**Perceived Message Sensation Value (PMSV).** PMSV was measured with the Perceived Message Sensation Value scale (Palmgreen et al., 2002). This scale contains 17 items, including Common/Unique, Weak impact/Powerful impact, Didn’t give me goose bumps/Gave me goose bumps, Ordinary/Novel, Unemotional/Emotional, Boring/Exciting, Weak visuals/Strong visuals, Not creative/Creative, Not graphic/Graphic, Not arousing/Arousing, Usual/Unusual, Uninvolving/Involving, Not intense/Intense, Weak soundtrack/Strong soundtrack, Not stimulating/Stimulating, Dramatic/Non-dramatic, and Weak sound effects/Strong sound effects. The items were rated on a 5-point semantic difference scale. For the purposes of this study, however, the item “Dramatic/Non-dramatic” was removed because all stimuli were dramatic narrative ads. The reliability of the scale was acceptable (α = .83). Higher mean score indicated high level of MSV.
Results and Discussion

The responses to questions about plot type were compared with a t-test, which revealed that difference of plot type of narrative ads was significant ($t = 2.84, p < .05$). Ads with a product-centered plot ($M = 3.98, SD = 1.32$) showed higher plot type question scores than those with a non-product-centered plot ($M = 1.64, SD = 1.68$). This result indicated successful stimuli selection for plot type.

Another t-test revealed that MSV between the two sets of ads was significant ($t = 3.42, p < .05$). Ads manipulated to be high in sensation value were rated as having significantly higher PMSV ($M = 4.12, SD = 1.49$) than ads manipulated to be low in sensation value ($M = 2.39, SD = 1.31$).

All results of pretest two indicated that the manipulations of plot type and MSV of the selected stimuli were successful. Table 1 summarizes the mean and standard deviation scores of plot type and PMSV of the eight stimuli.

50
Table 1

*Mean Scores and Standard Deviation of Plot Type and PMSV of the Stimuli*

<table>
<thead>
<tr>
<th>AD</th>
<th>Plot Type</th>
<th>MSV</th>
<th>Plot Type</th>
<th>PMSV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orville</td>
<td>PC</td>
<td>High</td>
<td>4.12(1.31)</td>
<td>4.33(1.51)</td>
</tr>
<tr>
<td>Hallmark</td>
<td>PC</td>
<td>High</td>
<td>3.69(1.63)</td>
<td>4.18(1.97)</td>
</tr>
<tr>
<td>Verizon</td>
<td>PC</td>
<td>Low</td>
<td>4.15(1.11)</td>
<td>2.32(1.77)</td>
</tr>
<tr>
<td>Febreze</td>
<td>PC</td>
<td>Low</td>
<td>4.08(1.33)</td>
<td>2.09(1.43)</td>
</tr>
<tr>
<td>Publix</td>
<td>NPC</td>
<td>High</td>
<td>1.89(1.66)</td>
<td>3.77(1.39)</td>
</tr>
<tr>
<td>Netflix</td>
<td>NPC</td>
<td>High</td>
<td>1.77(2.21)</td>
<td>4.19(0.97)</td>
</tr>
<tr>
<td>Target</td>
<td>NPC</td>
<td>Low</td>
<td>2.2(1.71)</td>
<td>2.21(1.27)</td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>NPC</td>
<td>Low</td>
<td>1.21(1.93)</td>
<td>2.48(1.3)</td>
</tr>
</tbody>
</table>

*Note: PC means a product-centered plot. NPC means a non-product-centered plot. PMSV means perceived message sensation value. Values in parentheses are standard deviations.*
CHAPTER FOUR
MAIN EXPERIMENT

The purpose of the main experiment was to find out the effects of two moderating variables (plot type and MSV) on narrative ad processing measured by transportation and empathy and to measure how these two variables work in combination to influence narrative ad processing.

Design

This experiment employed a repeated measures 2 (plot type) X 2 (MSV) X 8 (narrative ads) factorial design. The three factors of this experiment were plot type (product-centeredness and non-product-centeredness), MSV (high and low), and eight narrative ads. Plot type and MSV were of theoretical interest, while narrative ads were used as a repeated measure to have sufficient statistical analysis power and guard against unmeasured narrative ad effects. All presentation orders were randomized in order to prevent unexpected ordering effects including primacy and recency effects. All were within-subjects factors except for order of presentation. Thus, subjects served as their own control.

Participants

For the main experiment, 100 participants were recruited from a research participant pool at a large public university in the Southeast which resembled the general student population. The students either earned extra credit or fulfilled a course requirement by participating. The sample
was 30% male and 70% female. In terms of classification, the sample was made up of 22% freshmen \( n = 22 \), 22% sophomores \( n = 22 \), 43% juniors \( n = 43 \) and 13% seniors \( n = 13 \). Mean age for this sample was 20.5 years \( (SD = 3.2) \), with a range from 19 to 30 years of age.

**Procedure**

All response data the participants filled out were collected with a computer-based *MediaLab* survey application. Please see Appendix D for the content of the questionnaire. Upon arrival, participants were greeted and taken into the survey lab. Participants were told that they would be completing an experiment about how people process and evaluate advertising messages. Participants then sat in one of 15 cubicles equipped with a computer set with a 21” monitor and headphones. Before viewing the stimuli ads, they read and signed the informed consent form, answered basic demographic questions, and responded to questions measuring their individual preference for need for affect, sensation seeking, attitude toward TV advertising, and involvement with specific brands. After responding to these questions, the participants then watched the eight narrative ad stimuli. After watching each ad, participants filled out self-report measures of repeated exposure, arousal, attention, transportation, empathy, inference of manipulation intention, and attitude toward ad as a response to the ad they had just seen. After completing all measurements, the author debriefed the participants, answered any questions and concerns they expressed, and thanked them for participation.

**Instrument**

**Dependent Measures**

**Repeated exposure.** Participants answered the question “Have you ever seen this ad before?” This was done because the stimuli used in the present study were TV advertising
messages which had already aired on major national networks. Nordhielm (2002) asserted that advertising wear-out effects come from repeated exposure to TV ads and found an inverted U-shaped relationship between ad exposure and ad effectiveness as measured by a variety of dependent variables. Although they did not use commercials as narrative messages, Green et al. (2008) found that those who read the same narrative twice were the least transported, whereas those who first read then watched the filmed version of the narrative were the most transported. These rationales suggested that it is necessary to check the influence of repeated exposure to the stimuli ads.

**Arousal.** Arousal was self-reported using the pictorial SAM (self-assessment mannequin) scale (Lang et al., 1995). SAM is a 9-point, three-dimensional, pictorial emotional rating scale. Participants rate their emotional responses in terms of arousal (calm-excited), valence (positive-negative), and dominance (small-in control). Only the arousal dimension was used for the analysis.

**Attention.** In this study, attention was operationalized as allocating cognitive resources to interpret and comprehend the content of a message (i.e., narrative ads). Participants responded to the three attention questions on a 7-point scale ranging from 1 (none at all) to 7 (a great deal). The three questions are: “Overall, how much did you pay attention to the characters in the ad?” “Overall, how much did you pay attention to the story plot in the ad?” and “Overall, how much did you pay attention to the situations the characters were in during the ad?” The three items showed strong internal reliability ($\alpha = .927$).

**Transportation.** The transportation measure was adapted from Escalas (2004). To ascertain to what extent participants engaged in a more narrative form of processing, participants
responded to three items: “I was mentally involved in the ad,” “While thinking about the ad, I could easily picture the events in it taking place,” and “I could picture myself in the scene shown in the ad.” Transportation was measured on a 7-point scale ranging from 1 (completely disagree) to 7 (completely agree). The reliability of the scale met an acceptable standard (α = .815).

**Empathy.** The empathy measure developed by Escalas and Stern (2003) was employed. The measure consisted of five questions: “While watching the ad, I experienced feeling as if the events were really happening to me,” “While watching the ad, I felt as though I were one of the characters,” “While watching the ad, I felt as though the events in the ad were happening to me,” “While watching the commercial, I experienced many of the same feelings that the characters portrayed,” and “While watching the commercial, I felt as if the characters’ feelings were my own.” Empathy was measured on a 7-point scale ranging from 1 (completely disagree) to 7 (completely agree). The reliability of the scale met acceptable standards (α = .943).

**Inference of manipulation intention.** Campbell (1995) developed a six-item scale of inferences of manipulation intention. The items were ranked on a 7-point scale ranging from 1 (completely disagree) to 7 (completely agree) The questions were as follows: “The way this ad tried to persuade people seems acceptable to me” (reverse scored), “The advertiser tried to manipulate the audience in ways that I don’t like,” “I was annoyed by this ad because the advertiser seemed to be trying to inappropriately manage or control the viewers,” “I didn’t mind this ad; the advertiser tried to be persuasive without being excessively manipulative” (reverse scored), “This ad was fair in what was said and shown” (reverse scored), “I think that this advertisement is unfair.” The internal reliability of the six questions met an acceptable level (α = .935).
Attitude toward ad. Three attitude measurement items were employed, with 7-point scales for each ad and brand. The items are “very bad/very good,” “very uninteresting/very interesting,” and “dislike very much/like very much.” Attitude toward ad showed an acceptable level of reliability (α = .954).

Manipulation check. Two questions asked about participants’ perception of plot type: “In this ad you just saw, the product was a key to solve the conflict the main character(s) encountered” and “In this ad you just saw, the product was the source leading to the conflict the character(s) encountered.” Participants answered on a 5-point scale ranging from 1 (completely disagree) to 5 (completely agree).

Individual Factors

The main theoretical interest underlying this study is the influences of message factors of narrative ads on transportation and empathy. Researchers have found significant influences of individual factors on transportation, empathy and MSV. For a comprehensive understanding the effects of plot type and MSV on narrative ad processing, it could be beneficial to investigate the impact of individual factors on the relation between plot type and MSV and narrative ad processing. In this study, individual factors were measured as covariates with Need of Affect, Sensation Seeking, Skepticism toward Television Advertising, and brand involvement.

Need of affect. According to Appel and Richter (2010), individuals who have high degree of need of affect preference reported higher levels of transportation in response to narrative drama compared to those who have low need of affect. The original Need of Affect Questionnaire included a total of 26 approach and avoidance items, but only the approach subscale of this measure was included in this study because it alone was found to be related to...
emotional experiences (Appel & Richter, 2010; Maio & Esses, 2001). A total of 12 items were measured on a 7-point scale (1 = Very strongly disagree to 7 = Very strongly agree): “It is important for me to be in touch with my feelings,” “I think that it is important to explore my feelings,” “I am a very emotional person,” “It is important for me to know how others are feeling,” “Emotions help people get along in life,” “Strong emotions are generally beneficial,” “I feel that I need to experience strong emotions regularly,” “I approach situations in which I expect to experience strong emotions,” “I feel like I need a good cry every now and then,” “I like to dwell on my emotions,” “I like decorating my bedroom with a lot of pictures and posters of things emotionally significant to me,” and “The experience of emotions promotes human survival.”

**Sensation seeking.** The second individual factor measured in this study was sensation seeking preference. Some studies reported that individuals who have a high sensation seeking value process information from PSAs or other media messages differently compared to those who have low sensation seeking preference (e.g., Everett & Palmgreen, 1995; Kang et al., 2006; Lorch et al., 1994; Stephenson et al., 2003). The sensation seeking measure was adapted from the BSSS-4 scaled developed by Stephenson et al. and consisted of four items: “I like to explore strange places,” “I like to do frightening things,” “I like new and exciting experiences, even if I have to break the rules,” and “I prefer friends who are exciting and unpredictable.” All items were measured on a 7-point scale. Levels of reliability were acceptable for both Need of Affect (α = .79) and BSSS-4 (α = .84).

**Skepticism toward television advertising.** Skepticism toward television advertising was measured. According to Boush, Friestad, and Rose (1994), individuals who have high skepticism toward TV ads tend to easily activate greater levels of elaboration and counter-
arguments in response to advertising. In the current study, skepticism might have an apparent influence on the relationship between plot type and transportation or empathy because plot type will activate the ad viewer’s inference of manipulation intent and therefore decrease his or her transportation and empathy as a response to the narrative ad. The measure for skepticism toward television advertising was adapted from Boush et al.’s scale and has two factors: disbelief in ad claims and mistrust of advertiser motives. Disbelief in ad claims was measured with the following five questions: “TV commercials tell the truth,” “You can believe what the people in commercials say or do,” “The products advertised on TV are always the best products to buy,” “You can depend on getting the truth from most TV advertising,” and “If a TV commercial was not true it could not be on television.” Mistrust of advertiser motives was measured with the following six questions: “Advertisers care more about getting you to buy things than what is good for you,” “I often notice tricks that TV advertisers play to get me to buy something,” “TV commercials try to make people buy things they don’t really need,” “TV commercials are different from TV programs in the way they try to influence you,” “TV commercials tell only the good things about a product, they don’t tell you the bad things,” and “TV commercials are all about the same when it comes to telling the truth.” All items were measured on a 7-point scale. Reliability was acceptable for disbelief in ad claims (α = .86) and mistrust of advertiser motives (α = .87).

**Brand involvement.** Participants’ brand involvement was measured in advance of the main experiment. All participants answered one question about their involvement with 16 brands (8 brands featured in the stimulus ads and 8 other brands as filler): “Rate how important/involved the following brands are to you.” The question was answered with a 7-point scale.
CHAPTER FIVE

RESULTS

Before analyzing the study hypotheses, two pre-analyses were conducted. First, manipulations between conditions were further checked using post-message responses as a supplementary confirmation of the major manipulation. Second, the effects of repeated exposure were measured, even though TV ads which aired more than one and half years before the time of the main experiment were selected in order to alleviate the repeated exposure effect. After conducting these two analyses, the hypotheses were analyzed.

Manipulation Check

A t-test was used to check the manipulation of plot type. The difference between two conditions of plot type was significant ($t = 2.61, p < .01$). Narrative ads manipulated to have product-centered plots were rated significantly higher ($M = 4.27, SD = .84$) than ads manipulated to have non-product-centered plots ($M = 2.11, SD = .91$). This result indicated a successful manipulation of the plot type variable.

Effect of Repeated Exposure

Two analyses were conducted to measure the effects of repeated exposure. A t-test was used to measure the difference between two conditions: first exposure and repeated exposure regardless of specific ads. A second t-test was used to measure the effect of repeated exposure for all eight ad stimuli.
After analyzing the first t-test, it was found that the responses of transportation and empathy between the first exposure group and the repeated exposure group were not different statistically. In addition, inference of manipulation intent and attention were compared, and the results of the t-test revealed that the effect of repeated exposure was not significant. The results of the first analysis are summarized in Table 2.

Table 2

*Mean Scores and Standard Deviation by Repeated Exposure*

<table>
<thead>
<tr>
<th>Repeated Exposure</th>
<th>N</th>
<th>IMI</th>
<th>Attention</th>
<th>Transportation</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>369</td>
<td>2.65 (1.42)</td>
<td>5.79 (1.46)</td>
<td>5.02 (1.46)</td>
<td>4.27(1.77)</td>
</tr>
<tr>
<td>No</td>
<td>423</td>
<td>2.53 (1.48)</td>
<td>5.83 (1.24)</td>
<td>4.99 (1.52)</td>
<td>4.38(1.78)</td>
</tr>
</tbody>
</table>

*Note:* Values in parentheses are standard deviations. IMI stands for the inference of manipulation intent.

As the next analysis procedure, the effect of repeated exposure on specific ad stimuli was measured. Table 3 presents mean scores and standard deviation values showing that differences between the repeated exposure group and the non-exposure group were not significant except for the mean score of transportation ($t = 2.78, p < .05$). The group who had watched the Hallmark narrative ad before rated a significantly higher transportation experience ($M = 5.61, SD = 1.26$) than the group who saw the ad first during the experiment ($M = 4.78, SD = 1.63$). This result will be considered in interpreting the final results in the Discussion.
### Table 3

Mean Scores and Standard Deviation of Narrative Ad Stimuli by Repeated Exposure

<table>
<thead>
<tr>
<th>Ad</th>
<th>Repeated Exposure</th>
<th>N</th>
<th>IMI</th>
<th>Attention</th>
<th>Transportation</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT&amp;T</td>
<td>Yes</td>
<td>77</td>
<td>1.76(1.11)</td>
<td>6.06(1.1)</td>
<td>5.58(1.11)</td>
<td>4.79(1.6)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>22</td>
<td>2.21(1.69)</td>
<td>6.24(.94)</td>
<td>5.43(1.4)</td>
<td>4.71(1.83)</td>
</tr>
<tr>
<td>Febreze</td>
<td>Yes</td>
<td>86</td>
<td>3.79(1.1)</td>
<td>5.44(1.3)</td>
<td>4.23(1.38)</td>
<td>3.36(1.55)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>13</td>
<td>3.8(1.2)</td>
<td>5.79(1.5)</td>
<td>4.82(1.45)</td>
<td>4.07(1.7)</td>
</tr>
<tr>
<td>Hallmark</td>
<td>Yes</td>
<td>31</td>
<td>2.33(.64)</td>
<td>6.06(.99)</td>
<td>5.61(1.26)*</td>
<td>4.75(1.69)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>68</td>
<td>2.61(.94)</td>
<td>6.06(1.05)</td>
<td>4.78(1.63)*</td>
<td>4.47(1.86)</td>
</tr>
<tr>
<td>Netflix</td>
<td>Yes</td>
<td>51</td>
<td>1.85(1.19)</td>
<td>5.65(1.26)</td>
<td>5.64(1.07)</td>
<td>4.9(1.58)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>48</td>
<td>1.94(1.23)</td>
<td>5.45(1.49)</td>
<td>5.21(1.41)</td>
<td>4.74(1.57)</td>
</tr>
<tr>
<td>Orville</td>
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<td>32</td>
<td>2.7(.95)</td>
<td>5.87(1.16)</td>
<td>4.62(1.43)</td>
<td>3.71(1.65)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>67</td>
<td>3.1(1.38)</td>
<td>5.77(1.41)</td>
<td>4.34(1.55)</td>
<td>3.48(1.69)</td>
</tr>
<tr>
<td>Publix</td>
<td>Yes</td>
<td>17</td>
<td>1.76(.88)</td>
<td>5.68(1.36)</td>
<td>5.25(1.43)</td>
<td>4.83(1.37)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>82</td>
<td>1.91(1.39)</td>
<td>5.79(1.21)</td>
<td>5.24(1.23)</td>
<td>4.5(1.66)</td>
</tr>
<tr>
<td>Target</td>
<td>Yes</td>
<td>29</td>
<td>1.6(.89)</td>
<td>6.19(1.1)</td>
<td>6.17(1.13)</td>
<td>5.76(1.47)</td>
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<td></td>
<td>No</td>
<td>70</td>
<td>1.67(1.0)</td>
<td>6.05(1.07)</td>
<td>6.11(.94)</td>
<td>5.6(1.28)</td>
</tr>
<tr>
<td>Verizon</td>
<td>Yes</td>
<td>46</td>
<td>4.07(1.11)</td>
<td>5.7(1.21)</td>
<td>3.97(1.39)</td>
<td>3.32(1.65)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>53</td>
<td>4.17(1.21)</td>
<td>5.6(1.2)</td>
<td>3.88(1.41)</td>
<td>3.19(1.49)</td>
</tr>
</tbody>
</table>

*Note: Values in parentheses are standard deviations. IMI stands for the inference of manipulation intent. *p < .05
Main Hypothesis Tests

Main Effect of Plot Type on Narrative Ad Processing

Hypotheses 1, 2, and 3 proposed that narrative ad processing is influenced by plot type, which was operationalized in this study as product-centered plot and non-product-centered plot. Based on the theoretical explanation of the persuasion knowledge model (PKM), it was predicted that this main effect is mediated by activating inference of manipulation intention of ad viewers. As suggested by Baron and Kenny (1986), analysis of variance (ANOVA) and mediation analysis were conducted in order to show whether these effects exist.

Hypothesis 1 predicted that narrative ads that employ a product-centered plot would show a lower level of transportation compared to those with a non-product-centered plot. A one-way ANOVA test was used to compare mean scores between the two factors. The result revealed a significant main effect of plot type on transportation, $F(1, 790) = 248.434, p < .001, \eta^2 = .239$. A non-product-centered plot ($M = 5.59, SD = 1.22$) elicited a greater level of transportation than a product-centered plot ($M = 3.98, SD = 1.62$). A total of 23.9% of variance of transportation was explained by plot type. This analysis supported hypothesis 1.

Hypothesis 2 predicted that narrative ads that employ a product-centered plot would show a lower level of empathy compared to those with a non-product-centered plot. Using the same analysis method as in hypothesis 1, a one-way ANOVA was used to compare the influence of plot type on empathy. The result revealed a significant main effect of plot type, $F(1, 790) = 190.26, p < .001, \eta^2 = .194$. A non-product-centered plot ($M = 4.95, SD = 1.6$) elicited higher empathy responses than a product-centered plot ($M = 3.29, SD = 1.78$). A total of 19.4% of variance of empathy was explained by plot type. Thus, hypothesis 2 was supported.
Hypothesis 3 predicted that inference of manipulative intent (IMI) would mediate the effects of plot type on the level of transportation and empathy. Four analyses were performed to show the mediating effect of IMI. First, the main effect of plot type on transportation was measured with ANOVA. Second, ANOVA was performed between plot type and IMI. Third, regression analysis was performed between IMI and transportation. Last, analysis of covariate (ANCOVA) was performed between plot type and transportation with IMI as covariate.

A one-way ANOVA revealed that the two conditions of plot type had significantly different IMI scores, $F(1, 790) = 300.93, p < .001, \eta^2 = .276$. A product-centered plot ($M = 3.35, SD = 1.28$) activated higher IMI than a non-product-centered plot ($M = 1.82, SD = 1.19$).

A bivariate regression was performed by regressing IMI on transportation. The overall regression, $F(1, 790) = 317.91, p < .001, R^2 = .287$, was significant. IMI showed significant influence on predicted transportation ($\beta = -.536, p < .001$).

Last, ANCOVA was performed by including the proposed mediator of IMI as the covariate and transportation as the dependent variable. When the effect of plot type on transportation is controlled by IMI, the effect model was still significant, $F(1, 789) = 71.987, p < .001, \eta^2 = .084$. IMI also had a significant effect on transportation, $F(1, 789) = 129.59, p < .001, \eta^2 = .141$. These models explained 34.7 % of variance of transportation. The mean score of plot type had changed by IMI [a product-centered plot: 3.98 (unadjusted) to 4.31 (adjusted) and a non-product-centered plot: 5.59 (unadjusted) to 5.26 (adjusted)]. Moreover, the explanation power of plot type was also decreased ($\eta^2 = .239$ to $\eta^2 = .084$). According to Kenny, Kashy, and Bolger (1998), if the absolute size of the direct effect between the independent variable (i.e., plot type) and the dependent variable (i.e., transportation) is reduced after controlling for the mediator
variable (i.e., IMI), but the direct effect is still significantly different from zero, the mediation effect is said to be partial.

For the next analysis, the mediating influence of IMI on empathy was measured with the same procedure except for the repeated analyses. A bivariate regression was performed by regressing IMI on empathy. The overall regression was significant, $F(1, 790) = 291.43, p < .001, R^2 = .269$. IMI showed significant influence on predicted empathy ($\beta = -.519, p < .001$).

Last, ANCOVA was performed by including the proposed mediator of IMI as the covariate and empathy as the dependent variable. When the effect of plot type on empathy is controlled by IMI, the effect model was still significant, $F(1, 789) = 44.42, p < .001, \eta^2 = .053$. IMI also had a significant effect on empathy, $F(1, 789) = 130.27, p < .001, \eta^2 = .142$. These models explained 30.7% of the variance of empathy responses. The mean score of plot type had changed by IMI [a product-centered plot: 3.29 (unadjusted) to 3.68 (adjusted) and a non-product-centered plot: 4.95 (unadjusted) to 4.56 (adjusted)]. Moreover, the explanation power of plot type was also decreased ($\eta^2 = .194$ to $\eta^2 = .053$). These results reveal that IMI partially mediates the effect of plot type on empathy.

In sum, mediation analyses revealed that IMI partially mediated the effect of plot type on narrative ad processing. Thus, hypothesis 3 was partially supported. However, additional analysis would be required considering the mixed interaction effects by MSV. This analysis will be articulated after the discussion of the interaction analysis (hypotheses 8 and 9).

**Main Effect of Message Sensation Value on Narrative Ad Processing**

Hypotheses 4, 5, 6, and 7 proposed that narrative ad processing is influenced by MSV, which was operationalized as high and low level.
Hypothesis 4 predicted that participants would show a higher arousal state with narrative ads of high MSV than with those with low MSV. A one-way ANOVA test was used to compare mean scores between the two conditions. The result revealed a significant effect of MSV on arousal in response to narrative ads, $F(1, 790)= 140.89, p < .001, \eta^2 = .151$. A high MSV ($M = 7.59, SD = 1.22$) elicited a greater level of arousal than a low MSV ($M = 5.53, SD = 1.52$). Thus, hypothesis 4 was supported.

Hypothesis 5 predicted that participants would pay more attention to narrative ads with high MSV than to those with low MSV. A one-way ANOVA was performed to compare mean scores of the two conditions. The result revealed a significant effect of MSV on attention, $F(1, 790) = 23.924, p < .001, \eta^2 = .029$. A high MSV ($M = 5.8, SD = 1.25$) elicited a greater level of attention than a low MSV ($M = 5.34, SD = 1.38$). Thus, hypothesis 5 was supported.

The results of the analyses for hypotheses 4 and 5 were consistent with the results of pretest two, which measured manipulation. Based on these results, the main effect of MSV on transportation was analyzed in order to test hypothesis 6, which predicted that narrative ads with high MSV would lead to a greater level of transportation compared to those with low MSV. A one-way ANOVA was performed for the analysis. Responses of transportation by watching high MSV ads ($M = 5.04, SD = 1.45$) were higher than those of low MSV ads ($M = 4.53, SD = 1.78$). The difference between these two groups was significant, $F(1, 790) = 19.061, p < .001, \eta^2 = .024$.

Hypothesis 7 predicted that narrative ads with high MSV would lead to a greater level of empathy compared to those with low MSV. A one-way ANOVA to compare mean scores of the two conditions revealed a significant effect of MSV on empathy, $F(1, 790) = 14.275, p < .001, \eta^2$
A high MSV condition elicited a greater level of empathy \((M = 4.37, SD = 1.73)\) than a low MSV \((M = 3.87, SD = 1.99)\).

In sum, the main effect of MSV on narrative ad processing was significant. Thus, hypotheses 6 and 7 were supported.

**Interaction Effect of Plot Type and MSV on Narrative Ad Processing**

For the last analysis, the plot type and MSV interaction effect was analyzed. A general linear model (GLM) was used to measure the interaction effect proposed in hypotheses 8 and 9. Specifically, two analyses of interaction effects were performed for transportation and empathy, respectively.

Hypothesis 8 predicted that there would be a significant interaction between plot type and MSV such that with a product-centered plot, narrative ads with high MSV would lead to a greater level of transportation than those with low MSV. With a non-product-centered plot, however, narrative ads with low MSV would lead to a greater level of transportation than those with high MSV. The GLM analysis revealed there was a significant interaction effect between plot type and MSV on transportation, \(F(2, 788) = 115.053, p < .001, \varepsilon^2 = .13\). Figure 1 presents this interaction effect visually. Table 4 shows the means and standard deviations for the interaction. In narrative ads with product-centered plots, high MSV led to a greater level of transportation \((M = 4.74, SD = 1.56)\) than low MSV \((M = 3.22, SD = 1.29)\). In the condition of non-product-centered plot, low MSV showed a greater level of transportation \((M = 5.84, SD = 1.26)\) than high MSV \((M = 3.34, SD = 1.26)\). The interaction effect supported hypothesis 8.
Table 4
Means and Standard Deviations of Transportation by Plot Type and Message Sensation Value

<table>
<thead>
<tr>
<th>Plot Type</th>
<th>MSV</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product-Centered</td>
<td>High</td>
<td>4.74</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>3.22</td>
<td>1.29</td>
</tr>
<tr>
<td>Non-Product-Centered</td>
<td>High</td>
<td>5.34</td>
<td>1.26</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>5.84</td>
<td>1.12</td>
</tr>
</tbody>
</table>

Figure 1. Interaction between Plot Type and Message Sensation Value on Transportation ($p < .001$)
Hypothesis 9 predicted that there would be a significant interaction between plot type and MSV such that with a product-centered plot, narrative ads with high MSV would lead to a greater level of empathy than those with low MSV. With a non-product-centered plot, however, narrative ads with low MSV would lead to a greater level of empathy than those with high MSV. The GLM analysis was performed using the same procedure as for hypothesis 8. The result revealed a significant interaction effect between plot type and MSV on empathy, $F(2, 788) = 81.174, p < .001, \varepsilon^2 = .093$. Figure 2 presents this interaction effect visually. Table 5 shows the means and standard deviations for the interaction. In narrative ads with product-centered plots, high MSV elicited a greater level of empathy ($M = 4.05, SD = 1.8$) than low MSV ($M = 2.53, SD = 1.38$), while for non-product-centered plots, low MSV showed a greater level of empathy ($M = 5.21, SD = 1.56$) than high MSV ($M = 4.69, SD = 1.59$).

Table 5

*Means and Standard Deviations of Empathy by Plot Type and Message Sensation Value*

<table>
<thead>
<tr>
<th>Plot Type</th>
<th>MSV</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product-Centered</td>
<td>High</td>
<td>4.06</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>2.53</td>
<td>1.38</td>
</tr>
<tr>
<td>Non-Product-Centered</td>
<td>High</td>
<td>4.69</td>
<td>1.59</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>5.21</td>
<td>1.56</td>
</tr>
</tbody>
</table>
Hypothesis 3, which predicted that inference of manipulative intent (IMI) mediates the effects of plot type on the level of transportation and empathy, was partially supported. However, interaction between plot type and MSV on transportation and empathy showed significant influences. These results imply that the partial mediation of IMI could be from the influence of MSV. For being precise analysis, it is necessary to perform the mediation analysis of IMI, limiting the conditions of high MSV and low MSV.

Additional mediation analysis of IMI on the relationship between plot type and narrative processing was therefore performed. Table 6 presents means score of each condition of plot type
and MSV on IMI, transportation, and empathy. The same analysis procedures for testing hypothesis 3 were performed based on the suggestion of Baron and Kenny (1986). In the high MSV condition, the effect size of plot type on transportation $F(1.394) = 460.336, p < .001, \eta^2 = .54$, was not changed compared to that of the analysis using IMI as a covariate, $F(1.393) = 156.52, p < .001, \eta^2 = .56$. When measuring empathy as a dependent variable, the result was the same as in the transportation analyses (the initial effect: $F(1.394) = 325.954, p < .001, \eta^2 = .45$; the effect with covariate: $F(1.393) = 321.738, p < .001, \eta^2 = .44$). The results of these analyses indicate that IMI did not mediate the relationship between plot type and narrative processing under the condition of high MSV.

Table 6

*Means of IMI, Transportation, and Empathy by Plot Type and Message Sensation Value*

<table>
<thead>
<tr>
<th></th>
<th>IMI</th>
<th>Transportation</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>High MSV</td>
<td>PC</td>
<td>2.32</td>
<td>5.04</td>
</tr>
<tr>
<td></td>
<td>NPC</td>
<td>1.89</td>
<td>5.34</td>
</tr>
<tr>
<td>Low MSV</td>
<td>PC</td>
<td>3.46</td>
<td>4.53</td>
</tr>
<tr>
<td></td>
<td>NPC</td>
<td>1.75</td>
<td>5.84</td>
</tr>
</tbody>
</table>

*Note: IMI stands for the inference of manipulation intent.*

Next, the analyses performed above were conducted for the low MSV condition. The initial effect between plot type and transportation, $F(1.394) = 17.648, p < .001, \eta^2 = .04$, disappeared when performing ANCOVA with IMI as the covariate. Similarly, the initial effect between plot type and empathy, $F(1.394) = 13.822, p < .001, \eta^2 = .03$, also disappeared after ANCOVA analysis. These results show that IMI fully mediated the relationship between plot type and narrative processing under the condition of low MSV.
These analyses undergirded the result of the analysis for hypothesis 3, which revealed partial mediation showing the mediating effect of IMI was only significant when messages had low structural complexity.

**Relationship between Narrative Ad Processing and Attitude toward Ad**

Hypotheses 10 and 11 predicted that transportation and empathy in response to narrative ads would lead to positive attitude toward advertising (Aad). First, correlation analysis was performed to demonstrate the strength and direction of a linear relationship among the variables [Aad ($M = 5.43, SD = 1.41$), transportation ($M = 5.01, SD = 1.49$), and empathy ($M = 4.33, SD = 1.77$)]. Aad was strongly correlated with both transportation, $r (792) = .55, p < .01$, and empathy, $r (792) = .54, p < .01$. Moreover, transportation and empathy were also strongly correlated with each other, $r (792) = .774, p < .01$. Table 7 presents the results of the correlation analysis.

**Table 7**

*Pearson Product-Moment Correlation Coefficients*

<table>
<thead>
<tr>
<th></th>
<th>Aad</th>
<th>Transportation</th>
<th>Empathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aad</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>.55**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>.54**</td>
<td>.774**</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: ** $p < .01$*

Second, the influence of transportation and empathy on Aad was measured with multiple regression analysis. The result revealed the influence was significant, $F(2, 789) = 200.069, p <$
.001, $R^2 = .336$. In this analysis, transportation significantly predicted Aad, $\beta = .327$, $t (789) = 7.14, p < .001$. Empathy also significantly predicted Aad, $\beta = .289$, $t (789) = 6.31, p < .001$. These results indicate that 33.6% of variance of Aad is explained by transportation and empathy elicited by viewing narrative ads.

In sum, the results revealed that narrative ad processing was associated strongly with attitude toward ad. Thus, hypotheses 10 and 11 were supported.

**Individual Factors and Narrative Ad Processing**

Analyses of the influence of three individual factors (skepticism toward TV advertising, Need for Affect, and BSSS) on the relationship between two independent variables (plot type and MSV) and dependent variables (transportation and empathy) were performed. Specifically, the analyses were performed to measure the change of main effects of two independent variables on narrative processing while employing individual factors as control variables. With this rationale, three individual factors were measured with ANCOVA analysis. Table 8 presents the results of all eight ANCOVA analyses.

There were two significant effects of disbelief in ad claims and need of affect as individual factors. Specifically, disbelief in ad claims as one factor of skepticism toward TV advertising revealed a significant influence, $F(1, 789) = 9.37, p < .005, \varepsilon^2 = .012$, on the relationship between plot type and empathy, independent and dependent variables respectively. Another individual factor which revealed significant influence was need of affect, $F(1, 789) = 10.5, p < .005, \varepsilon^2 = .013$. Need of affect influenced the main relationship between MSV and empathy. Hence these significant effects should be interpreted with caution when discussing main impacts of independent variables.
### Table 8

*Analysis of Covariate with Individual Factors*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable/Covariate</th>
<th>$F(1, 789)$</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation</strong></td>
<td>Plot Type</td>
<td>248.92***</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>Disbelief in Ad Claims</td>
<td>2.546</td>
<td>.003</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td>Plot Type</td>
<td>192.28***</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>Disbelief in Ad Claims</td>
<td>9.37**</td>
<td>.012</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>Plot Type</td>
<td>248.87***</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>Mistrust of Advertiser Motives</td>
<td>2.387</td>
<td>.003</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td>Plot Type</td>
<td>190.84***</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>Mistrust of Advertiser Motives</td>
<td>3.34</td>
<td>.004</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>MSV</td>
<td>19.07***</td>
<td>.024</td>
</tr>
<tr>
<td></td>
<td>Need of Affect</td>
<td>1.3</td>
<td>.002</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td>MSV</td>
<td>14.45***</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Need of Affect</td>
<td>10.5**</td>
<td>.013</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>MSV</td>
<td>19.1***</td>
<td>.024</td>
</tr>
<tr>
<td></td>
<td>Sensation Seeking</td>
<td>2.13</td>
<td>.003</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td>MSV</td>
<td>14.26***</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Sensation Seeking</td>
<td>1.34</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note:* MSV stands for message sensation value. ***$p < .001$, **$p < .01$*

For the last analysis procedure, brand involvement was measured as a control variable with ANCOVA. Table 9 reveals its influence level on the main relationship between plot type
and narrative ad processing. Brand involvement showed a significant influence on plot type and transportation, $F(1, 789) = 7.1, p < .005, \eta^2 = .009$, and plot type and empathy, $F(1, 789) = 8.99, p < .005, \eta^2 = .011$. Because its partial effect was very small (0.9% and 1.1% of explanation power, respectively), it should be cautious to interpret plot type as a main effect on narrative ad processing.

Table 9

*Analysis of Covariate with Brand Involvement*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable/Covariate</th>
<th>$F$ (1, 789)</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>Plot Type</td>
<td>229.46***</td>
<td>.225</td>
</tr>
<tr>
<td></td>
<td>Brand Involvement</td>
<td>7.1**</td>
<td>.009</td>
</tr>
<tr>
<td>Empathy</td>
<td>Plot Type</td>
<td>173.18***</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>Brand Involvement</td>
<td>8.99**</td>
<td>.011</td>
</tr>
</tbody>
</table>

Note: ***$p < .001$, **$p < .005$

**Summary**

In this study, the influence of plot type and MSV on narrative ad processing was investigated. Table 10 presents the results of the eleven hypotheses in brief.
Table 10

*Brief Summary of Results for Hypotheses*

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Analysis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>Plot type and Transportation</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>Plot type and Empathy</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>Mediating of IMI</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>MSV and Arousal</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 5</td>
<td>MSV and Attention</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 6</td>
<td>MSV and Transportation</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 7</td>
<td>MSV and Empathy</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 8</td>
<td>Interaction effect on Transportation</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 9</td>
<td>Interaction effect on Empathy</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 10</td>
<td>Transportation and Aad</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 11</td>
<td>Empathy and Aad</td>
<td>Supported</td>
</tr>
</tbody>
</table>

*Note:* IMI stands for inference of manipulation intention. MSV stands for message sensation value.
CHAPTER SIX

DISCUSSION

Overview of the Study

In the contemporary media environment, advertisements are perceived as clutter or manipulative intentions which lead to skeptical disbelief among media consumers. These perceptions have been regarded by marketers and advertisers as a critical threat. Perhaps the most studied way to reduce such negative resistance, and currently the most popular, is the use of narratives as a persuasive vehicle (Green et al., 2002). Narratives are believed to reduce resistance for two main reasons. First, given that audiences generally approach stories with the expectation of being entertained, barriers posed by the perception of persuasive intent are thought to be avoided. Second, the dramatic and suspenseful nature of the narrative may capture viewers’ attention in such a way that their focus is on following the plot of the story and the fate of the characters, which serves to distract them from scrutinizing the message content. Further, if audiences identify with story characters, they may be more likely to adopt the emotions and behaviors of the characters they like, given that their resistance is down.

However, there has been very little research done to suggest how to design a persuasive narrative ad message. In the current study, the author suggested two message factors, plot type and message sensation value as content and format respectively, and investigated their influences on narrative ad processing (i.e., transportation and empathy).
The Impact of Message Content on Narrative Ad Processing

As message content, plot type in narrative ads was operationalized as two types: product-centered plot and non-product-centered plot. As hypothesized, the main effect of plot type on narrative ad processing was significant. Specifically, a product-centered plot activated more inference of manipulation intention while watching narrative ads, and the activation inhibited the experience of transportation and empathy compared to ads with a non-product-centered plot. This result suggests two things. Previous studies have focused on the superiority of narrative ads compared to informative ads. However, the possibility that some components of narrative ads could act to reduce or hamper their superior performance was found in the current study. More narrowly, the findings of this study show that using a product as the key to solve a dramatic conflict was the component that activated inferencing of manipulation intention which makes viewers lose focus on the narrative itself.

This finding is congruent with findings in previous studies based on the persuasion knowledge model (PKM) which have led to the identification of activators of persuasion knowledge such as biased endorsers (Kirmani & Zhu, 2007), excessive use of rhetorical questions (Ahluwalia & Burnkrant, 2004), negative comparisons (Jain & Posavac, 2004), and borrowed interest appeals (Campbell, 1995) and empirically shown their influence in advertising messages. Plot type in narrative ads can be regarded as one of these activators which make manipulative intent salient and may cause ad viewers to activate their persuasion knowledge. Furthermore, the influence of product-centered plot type in narrative ads on narrative processing is congruent with the impact of a pre-reading instruction (Escalas, 2007) and rhetorical questions (Wentzel et al., 2010), both of which resulted in reduced transportation experiences.
In sum, while most researchers have argued that narrative ads lead to more positive responses because they trigger a narrative form of processing (e.g., Adaval & Wyer, 1998; Escalas, 2004), the findings of the current study demonstrate that this relationship is moderated by the salience of manipulative intent activated by a product-centered plot. Therefore, it can be hard for an ad with a product-centered plot to attain maximum persuasive influence because viewers who activate a high degree of persuasion knowledge based on plot type are less likely to fall under its influence.

The Impact of Message Features on Narrative Ad Processing

Decades of persuasion research have demonstrated that information can be manipulated to influence a message’s persuasive effects (O’Keefe, 2003). It is valuable to explore how intrinsic features of messages might engender greater message scrutiny or persuasiveness (O’Keefe & Jensen, 2009).

As hypothesized, high MSV elicited greater arousal and attention level than low MSV and subsequently resulted in significantly higher levels of transportation and empathy. The finding of the present study is congruent with previous findings in the literature. In a study of the effects of MSV in TV news stories, for instance, Wei and Zhou (2008) found that higher MSV leads to a more positive perception of the story in terms of clarity, understandability, credibility, enjoyability, and informativeness. Similarly, MSV has been shown to have a positive effect on various media message types such as PSAs (e.g., Kang et al., 2006; Morgan et al., 2003; Stephenson & Palmgreen, 2001) and general TV ads (e.g., Donohew et al., 1994; Hitchon & Thorson, 1995; Palmgreen et al., 1991; Yoon et al., 1999).
In sum, the influences of MSV under the condition of watching TV narrative ads are shown to be congruent with findings in previous investigations in that high MSV in this study elicited greater arousal and attention and led to greater transportation and empathy than low MSV.

**Interaction Effect between Plot Type and MSV on Narrative Ad Processing**

Previous findings in this chapter revealed the main impact of plot type (i.e., product-centered plot) as inhibitor and MSV (i.e., high MSV) as enhancer on narrative ad processing. As a next step, the moderating effect of MSV on plot type was measured, and a significant interaction effect between the two factors was found. In the condition of a product-centered plot, narrative ads with high MSV elicited a greater level of narrative ad processing than those with low MSV. In the non-product-centered plot condition, however, the influence of MSV had the opposite effect. High MSV did not lead to greater levels of transportation and empathy than low MSV, but did result in a significantly lower level of narrative processing.

This study contributes to the literature by demonstrating the types of narrative ads that enhance narrative processing and the conditions under which their effect may be less favorable. In research on resistance to persuasion, one set of strategies focuses on minimizing the sources of resistance. One could directly address the sources of resistance by offering counterarguments or other forms of assurance or distract from resistance by disrupting message scrutiny that leads to a skeptical attitude toward the ad message. High MSV ads are characterized as novel, creative, exciting, intense, dramatic, and fast-paced (Stephenson et al., 1999) and are regarded as more demanding of resources for information processing (Lorch et al., 1994; Palmgreen et al., 2001; Stephenson & Palmgreen, 2001). These characteristics of high MSV in a narrative ad may
compel viewers to utilize more resources and lead them to deeper immersion (i.e., transportation) and stronger affective experience (i.e., empathy) during narrative processing.

In this vein, viewers who watch a narrative ad with a product-centered plot perceive the role of the product and activate their persuasion knowledge. This activation of persuasion knowledge might be a mental effort which demands cognitive resources. However, high MSV compels the viewers to use more resources and gives them an enjoyable perception of immersion even though they realize the intention of the ad to persuade them to do or buy something. Hence, high MSV in a narrative ad is better liked and leads to a more positive attitude toward advertising. That is, persuasion knowledge effects can be mitigated when viewers are cognitively busy with high MSV.

However, high MSV does not always elicit positive responses. This assertion might be an explanation of the impact of high MSV on narrative ads with non-product-centered plots. Viewers might voluntarily allocate cognitive resources to understanding and immersing themselves in narrative ads and might feel corresponding transportedness and empathy from the ads without any detachable cues from a product-centered plot. However, high MSV in a non-product-centered plot demands more cognitive resources from viewers. This might lead to a state of cognitive overload because these resources are mainly used to understand the narrative plots of ads. When viewers have trouble allocating their resources and are unable to perform well, they experience less enjoyment (Lang, 2006). For example, Kang et al. (2006) found that the distractive effect of high MSV hinders the persuasive goals of arguments in anti-marijuana PSAs.
In sum, the interaction between plot type and MSV is significant statistically. The impact of manipulative intent induced by plot type on the level of narrative ad processing is contingent on the amount of cognitive resources that ad viewers have at their disposal. Specifically, when ad viewers watch a narrative ad with a product-centered plot, their persuasion knowledge is activated by the role of the product in the plot. However, highly complex messages with fast pacing, sound effects, and zooming to the actor’s face demand additional cognitive resources from viewers that hinder them from using their cognitive resources to activate persuasion knowledge. As a result of these cognitive allocations, they evaluate high MSV ads as more pleasurable and enjoyable and experience a greater level of transportation and empathy compared to those with low MSV. However, in a non-product-centered plot, ad viewers might regard high MSV as a distraction which hampers their ability to transport themselves to a dramatized narrative world and therefore evaluate these ads as less enjoyable.

**Individual Factors as Potential Moderators**

Four individual factors (i.e., skepticism toward TV advertising, need of affect, sensation seeking, and brand involvement) were measured to gain a comprehensive understanding of the influences of plot type and MSV on narrative ad processing.

Two individual factors showed significant moderating influences on the relationship between message factors and narrative ad processing. Disbelief in ad claims, one sub-factor of skepticism, moderated the influence of plot type on the degree of empathy, but explained only 1.2% of total variance ($p < .01$). Similarly, need of affect had a significant moderation on the influence of MSV on empathy, but this factor also explains only 1.3% of total variance ($p < .01$). Sensation seeking and brand involvement did not reveal any significant moderation.
In contrast with previous studies, individual factors did not show strong significant influences in the context of narrative ads in the current study. This result could be explained by the unique characteristic of narrative. Green (2004) found that regardless of their prior knowledge and experience, individuals reported a more transported experience from a narrative message. This theoretical rationale might explain the minimal influences of individual factors seen in the current study.

**Implications**

This research makes several theoretical contributions to the literature. First, while most researchers have argued that narrative ads lead to more positive responses because they trigger narrative processing (Adaval & Wyer, 1998; Chang, 2009; Escalas, 2004), the findings of the current study demonstrate that the superiority of narrative ads is moderated by plot type, which influences the activation of manipulative intent. This finding contributes to work on the PKM and advertising tactics. Numerous researchers have examined the applicability of the PKM in the context of guilt appeals (Cotte, Coulter, & Moore, 2005), comparative advertising (Jain & Posavac, 2004), and attention-getting ads (Campbell, 1995). The findings of the current study build on this research by showing that the PKM is also applicable in the context of narrative ads.

Second, an important moderator for these effects was identified, namely message sensation value. The findings show that narrative ads with high MSV elicit greater arousal and attention and lead to greater narrative processing than those with low MSV. This result shows that the impacts of message structural features in narrative ads are congruent with features of other message formats like TV news, drama, and PSA.
Third, the interaction effect between plot type and MSV shows statistical significance. High MSV has positive impacts on deeper narrative processing only under the condition of product-centered plot. In non-product-centered plots, however, the impact seems to be negative. When plot type and MSV collide in a message, their impact directions are changed.

The findings of the current study have implications for industry professionals involved in managing and producing ad messages. Numerous ads which employed narrative styles have emphasized the unique or competitive attribute of the product (or service) by casting it in a main role such as solving dramatic conflicts. However, in the present study product-centeredness activated ad viewers’ skeptical inferencing and hampered deeper narrative processing as a result. In order to optimize the effectiveness of narrative ad design, it could be best to employ non-product-centered plots especially with a low level of message structural complexity. When a product-centered plot is thought to be irreplaceable, it is recommended to design the ad with highly complex structural features. However, overly complex message structures could cause cognitive overload in viewers and lead them to negative evaluations (Fox, Park, & Lang, 2007). Furthermore, the findings of the present study could be beneficial because plot type and MSV can be more easily designed and controlled in the initial development steps.

The broadest implication of the present study is in the attempt to integrate structural and content elements of narrative ad messages and explain their significant interaction based on theories of persuasion knowledge model and limited information processing system to impact the level of resources allocated for the narrative processing.
Limitations and Future Study

Some limitations of the study need to be pointed out. The first is that the present study employed an experiment method conducted in lab survey facilities. The narrative ad stimuli in the study were viewed in conditions isolated from surrounding media content. In everyday media consumption, especially exposure to advertising, the influence of previous program content or other commercials on the ad could be significant. For instance, excitation-transfer theory purports that residual excitation from one stimulus (e.g., previous program content) will amplify the excitatory response to another stimulus (i.e., the ad) even though the hedonic valences of the stimuli may differ (Bryant & Miron, 2003). In addition, naturally the laboratory setting also could be one of limitations which are conducted by obtrusive means of assessing levels of attention. Future studies are required to fully understand the influence of environmental/situational factors which lead to deeper transportation and empathy responses to narrative ads. Future researchers may want to replicate this study’s findings using less obtrusive means of assessing levels of attention conducted under more natural viewing conditions.

The second limitation involves the dependent variables which were used in the study. Transportation was regarded as a cognitive reaction and empathy as an affective reflexive reaction based on various relevant studies (e.g., Goldstein, 1983). Other researchers have confirmed that analytical cognitive processing and emotional processing are two qualitatively different modes of thinking (Bruner, 1986, 1990; Kerby, 1991; Schank, 1990). However, Zillmann (2009) points out that the validity of empathy theories is partial to, and ultimately limited by, specific situational and behavioral contexts. Moreover, it is apparent that in producing empathic reactivity, the operation of several of the specific mechanisms is usually confounded. Green and Brook (2000) also defined transportation as “an integrative melding” of
cognitive attention, mental imagery, and emotional involvement (p. 701). The results of the present study do not contradict this argument, showing similar results between transportation and empathy as reactions to narrative ads. Future researchers should address this controversial argument especially in the narrative ad context. Movius et al. (2009) probed the difference among identification, transportation, and motivation although they did not use ad stimuli. Moreover, Murphy et al. (2009) compared the theoretical concepts of involvement, transportation, and emotion in educational game context.

Third, extended investigations are required to fully understand the effectiveness of narrative ads. In advertising literature, attitude, recall, and memory have also been regarded as key metrics in testing for the effectiveness of advertisements. Numerous researchers have discussed recall/memory as a basic measurement of ad effectiveness (e.g., Stapel, 1998). Moreover, recall of message is critical in the limited capacity of information processing model, which focuses on the effectiveness of message structures. However, the dramatic and suspenseful nature of a narrative may capture viewers’ attention such that their focus is on following the plot of the story and the fate of the characters, which may serve to distract them from memorizing the message content (e.g., competitive attribute of a product) which advertisers regard as a critical factor in decision-making about future purchasing. Bruner (1986) asserts that whereas individuals aim to construe context-independent, abstract meaning through paradigmatic thought, they intend to generate highly personal meaning through engaging in narrative thought. In other words, people are likely to engage in mental simulation, defined as “the cognitive construction of hypothetical scenarios” (Taylor & Schneider, 1989, p. 175). In this regard, measuring memory accuracy can be a next step to a more comprehensive understanding of narrative ad persuasiveness.
Future researchers may also want to investigate which additional factors moderate the relationship between narrative ads and narrative processing. Although plot was articulated as a moderating factor in this study, there are many other factors of narrative such as actor/character and performance. For instance, Grabe and Samson (2010) found that viewers who saw TV news messages reported by a sexualized female had a lower level of memory accuracy compared to those who watched an unsexualized female anchor because their cognitive resources were occupied by the sexual overtones of the sexualized woman. When applying this result to the actor in narrative ads, it might be interesting to investigate the relationship between the level of sexualization of actors and narrative ad processing. Performance can also be an influential factor on narrative processing. Deighton et al. (1989) argue that judgment of verisimilitude or plausibility is a critical factor in the persuasiveness of narrative ads, pointing out that “drama must meet the test of verisimilitude or plausibility of the depicted events because belief is the product rather than an indicator of the process of persuasion” (p. 337). The success of a narrative advertisement could lie in its verisimilitude. Future researchers can examine factors that may increase an ad’s verisimilitude, including the performance quality of the actors and the similarity of the depicted episode to consumers’ personal experiences.

Although the influence of message factors was the sole focus of this study, future research in this field should be done to learn how to design optimized narrative ad messages while considering and integrating multidimensional boundaries such as individual, message, and environmental/situation factors.
REFERENCES


Green, M. C. (2004). Transportation into narrative worlds: The role of prior knowledge and perceived realism. Discourse Processes, 38, 247-266.


Appendix A

Ad Stimuli Description
<table>
<thead>
<tr>
<th>AD Brand</th>
<th>Plot Type</th>
<th>MSV</th>
<th>Story Plot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orville</td>
<td>PC</td>
<td>High</td>
<td>A boy with a broken leg sits on a chair watching his friends playing outside. They call him “loser.” He decides to change his mood with Orville Redenbacher popcorn. The other kids smell it and run to the door of the home. However, the boy has already locked the living room door and eats the popcorn while laughing at them.</td>
</tr>
<tr>
<td>Hallmark</td>
<td>PC</td>
<td>High</td>
<td>On the first day of school, a girl is in a very nervous state. Her mom says “everybody is nervous going back to school.” As the girl gets on the school bus, other students in the bus show their nervous faces. Taking a seat, she finds a card with mom’s message “You Rock! Love you, mom.” After reading it, she smiles confidently.</td>
</tr>
<tr>
<td>Verizon</td>
<td>PC</td>
<td>Low</td>
<td>On a rainy day, a man runs out of a restaurant and yells to the sky “NO!” A woman asks her waiter, “What’s going on?” The server says, “It’s a dead zone. Facebook, Tweeting is super slow.” She responds “I know it. So I switched to Verizon.” The Verizon man appears and says to the yelling man “We got 3G all over.” The man smiles blissfully.</td>
</tr>
<tr>
<td>Febreze</td>
<td>PC</td>
<td>Low</td>
<td>A mom asks her son, “Karl, aren’t your friends coming over?” Son responds “Yes, so?” Mom smells a chair and curtain in son’s room and says, “Smell this, it stinks. You need to wash the whole room.” She shows him Febreze spray and they start spraying it all over the room together. Two girl friends enter his room and say, “It smells nice here.” He says “You know, I like to keep things fresh. It helps me concentrate.” After listening to her son’s words, mom shakes her head.</td>
</tr>
<tr>
<td>Publix</td>
<td>NPC</td>
<td>High</td>
<td>In a pharmacy section, a sick-looking woman gives her prescription to a pharmacist. Her daughter is dancing joyfully behind her, and the sick mom makes a grimace at that. The pharmacist tells her, “Mrs. Brown, have a seat while I prepare this, ok?” and asks the girl to draw a picture to make mommy happy. When the medicine is ready, the pharmacist staples the picture to the paper bag. Mom checks the medicine and finds daughter’s picture of herself and mom going to a picnic with the message “I love you, mom.” She looks back and smiles at the pharmacist, saying “Thank you.” A narrator says, “Publix, where shopping is a pleasure.”</td>
</tr>
</tbody>
</table>
| Netflix  | NPC       | High| Late at night, a man finds a DVD which is due today. He gets on his bike and rides it at full speed. When he enters the shop and returns the DVD, a clerk says to him, “There
<table>
<thead>
<tr>
<th>PC</th>
<th>NPC</th>
<th>MSV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>NPC</td>
<td>Low</td>
</tr>
<tr>
<td>A son and mom are packing stuff for college. Mom packs a blanket, imagining it covering her son as he studies hard in his room. The next scene shows the son using the blanket to hide a kiss with a girl in a public space. Next, mom packs a reading lamp, imagining her son using it for studying, but the next scene shows it is used as dancing light in his dorm room. A small refrigerator is imagined to be full of healthy food, but the next scene shows the refrigerator is full of Red Bull and Mountain Dew. When the son gets back to his dorm room, he calls his mom. At that time, mom is hosting a house party with other moms.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| AT&T | NPC | Low |
| A voice narrates, “My name is Blake. I’m chief shoe-giver at TOMS Shoes” over various shoe business scenes. Next scene portrays his working activities with narration, “My entire business is with a phone, and I need a network with a great coverage because whenever we sell a pair of shoes, we give a pair away to children in need.” Next scene shows that he is giving away shoes to children. His last narration is, “It would be impossible for me to do this without a network that works all over the world.” The last visual is a zoom-in on his big smile at a child who got new shoes from him. |

Note: PC = a product-centered plot, NPC = a non-product-centered plot, MSV = message sensation value.
Appendix B

Informed Consent Form
This study is being conducted by Jung Kyu Kim, a PhD student and Dr. Shuhua Zhou, a professor at College of Communication & Information Sciences, the University of Alabama. I would like to invite you to participate in an experiment to determine the factors influencing information processing in the context of advertising messages. Please read this form and ask any questions you may have before agreeing to participate in this study.

**Background Information and Procedures**

The objective of this study is to investigate information processing of advertising messages. The findings of the present study will be shared in academic settings through papers and presentations, but not used for any marketing purposes.

Participants are recruited from the University of Alabama in Tuscaloosa, AL. You are being asked to take part in the current study. When you agree to participate in the study, you will be directed to one cubicle which has computer facilities and allowed ample time to review the form. The study will take approximately 30 minutes to finish. After sixteen questions about your preferences, you will watch 8 commercial videos and be asked to complete questions after each video. Your participation is strictly voluntary.

**Risks of Being in this Study**

There will be minimal risks to the participants involved in this study. Participants will be asked about their opinions and thoughts about commercial videos. These questions are not expected to cause any feelings of embarrassment or discomfort for the participant or researcher.

**Benefits of Being in this Study**

This study will provide students with a learning experience about the quantitative research method. Moreover, participation may help them better understand the narrative processes involved in plot type and message structure of the ad message.

**Confidentiality and Voluntary Nature of the Study**

Please note that there is no place to put participant’s name on the questionnaire, nor is there a link between your information in this consent form and your responses in the questionnaire. The researcher will not, in any way, be able to identify your answers. Your confidentiality will be maintained throughout the entire process.

If you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any kind if you decide that you do not want to participate.

This study is strictly voluntary. You can skip answering any questions or can withdraw from the survey at any time without any concern of reprisal or without affecting their current or future relations with the instructor of the class or with the College.

__________________    _____________________    ____________________
Signature              Printed Name             Date

University of Alabama IRB
CONSENT FORM APPROVED: 10-07-10
EXPIRATION DATE: 10-06-11
Appendix C

Pretest Questionnaire
**Pretest Questionnaire**

* Please answer below questions

Please rate below questions with 1 to 5 scale:

Very strongly **Disagree**  1  2  3  4  5  Very strongly **Agree**

1. In this ad, a product (or a service) was a key to solve the conflict the character(s) encountered (____)
2. In this ad, a product (or a service) was the cause of the conflict the character(s) encountered (____)

* Please **rate the ad video clip** on each of the scales below

<table>
<thead>
<tr>
<th>Common</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Unique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak impact</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Powerful impact</td>
</tr>
<tr>
<td>Ordinary</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Novel</td>
</tr>
<tr>
<td>Boring</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Exciting</td>
</tr>
<tr>
<td>Weak visuals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Strong visuals</td>
</tr>
<tr>
<td>Not arousing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Arousing</td>
</tr>
<tr>
<td>Usual</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Unusual</td>
</tr>
<tr>
<td>Uninvolving</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Involving</td>
</tr>
<tr>
<td>Weak soundtrack</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Strong soundtrack</td>
</tr>
<tr>
<td>Not stimulating</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Stimulating</td>
</tr>
</tbody>
</table>
Appendix D

Main Experiment Questionnaire
Questionnaire

Name: ________________________________________   CWID: _______________________
Age: ___________________ years old                          Gender: _______________
Classification: __________________________________

Individual Preference

Please rate below questions with 1 to 7 scale:
Very strongly **Disagree**   1  2  3  4  5  6  7  Very strongly **Agree**

1. It is important for me to be in touch with my feelings. (____)
2. I think that it is important to explore my feelings. (____)
3. I am a very emotional person. (____)
4. It is important for me to know how others are feeling. (____)
5. Emotions help people get along in life. (____)
6. Strong emotions are generally beneficial. (____)
7. I feel that I need to experience strong emotions regularly. (____)
8. I approach situations in which I expect to experience strong emotions. (____)
9. I feel like I need a good cry every now and then. (____)
10. I like to dwell on my emotions. (____)
11. I like decorating my bedroom with a lot of pictures and posters of things emotionally significant to me. (____)
12. The experience of emotions promotes human survival. (____)
13. I like to explore strange places. (____)
14. I like to do frightening things. (____)
15. I like new and exciting experiences, even if I have to break the rules. (____)
16. I prefer friends who are exciting and unpredictable. (____)
17. I like to explore strange places. (____)
18. I like to do frightening things. (____)
19. I like new and exciting experiences, even if I have to break the rules. (____)
20. I prefer friends who are exciting and unpredictable. (____)
21. TV commercials tell the truth. (____)  
22. You can believe what the people in commercials say or do. (____)  
23. The products advertised on TV are always the best products to buy. (____)  
24. You can depend on getting the truth from most TV advertising. (____)  
25. If a TV commercial was not true it could not be on television. (____)  
26. Advertisers care more about getting you to buy things than what is good for you. (____)  
27. I often notice tricks that TV advertisers play to get me to buy something. (____)  
28. TV commercials try to make people buy things they don't really need. (____)  
29. TV commercials are different from TV programs in the way they try to influence you. (____)  
30. TV commercials tell only the good things about a product, they don't tell you the bad things. (____)  
31. TV commercials are all about the same when it comes to telling the truth. (____)  

**Brand Involvement**  
Please rate below questions with 1 to 7 scale:  
Not Very Involved/Important 1 2 3 4 5 6 7 Very Involved/Important  
1. AT&T (____)  
2. T-Mobile (____)  
3. Verizon (____)  
4. Publix (____)  
5. Walmart (____)  
6. Target (____)  
7. Netflix (____)  
8. Youtube (____)  
9. Febreze (____)  
10. Tide (____)  
11. Orville (____)  
12. FiberOne (____)  
13. Hallmark (____)  
14. TacoBell (____)  
15. Morning Glory (____)  
16. Hulu (____)
Questions about Ad Stimuli

Arousal

* Please place an “X” over the picture or between the pictures that best represent your feelings.

Happy                                                                                     Sad

* Please place an “X” over the picture or between the pictures that best represent your feelings.

Excited                                                                                     Calm

Attention

* Please rate below questions

Please rate below questions with 1 to 7 scale:

Not At All   1   2   3   4   5   6   7   Very Much

1. Overall, how much did you pay attention to the characters in the ad? (____)
2. Overall, how much did you pay attention to the story plot in the ad? (____)
3. Overall, how much did you pay attention to the situations the characters were in during the ad? (____)
**Main Variables**

*Please, answer below questions*

Please rate below questions with 1 to 7 scale:

Very strongly **Disagree** 1 2 3 4 5 6 7 Very strongly **Agree**

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>The way this ad tried to persuade people seems acceptable to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The advertiser tried to manipulate the audience in ways that I don’t like</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I was annoyed by this ad because the advertiser seemed to be trying to inappropriately manage or control the viewers</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I didn’t mind this ad; the advertiser tried to be persuasive without being excessively manipulative</td>
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<td></td>
</tr>
<tr>
<td>This ad was fair in what was said and shown</td>
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<td></td>
</tr>
<tr>
<td>I think that this advertisement is unfair</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I was mentally involved in the ad</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>While thinking about the ad, I could easily picture the events in it taking place</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I could picture myself in the scene shown in the ad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>While watching the ad, I experienced feeling as if the events were really happening to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>While watching the ad, I felt as though I were one of the characters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>While watching the ad, I felt as though the events in the ad were happening to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>While watching the commercial, I experienced many of the same feelings that the characters portrayed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>While watching the commercial, I felt as if the characters’ feelings were my own</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Attitude toward Ad**

* Please rate **the advertising itself** you just watched on each of the scales below

<table>
<thead>
<tr>
<th>Very bad</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very uninteresting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Very interesting</td>
</tr>
<tr>
<td>Dislike very much</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Like very much</td>
</tr>
</tbody>
</table>

**Manipulation Check**

* Please, answer below questions

Please rate below questions with 1 to 5 scale:

Very strongly **Disagree** 1 2 3 4 5 Very strongly **Agree**

1. In this ad, a product (or a service) was a key to solve the conflict the character(s) encountered (____)
2. In this ad, a product (or a service) was the cause of the conflict the character(s) encountered (____)

**Repeated Exposure**

* Have you ever seen this ad before?
Yes (______) No (______)

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