

THE IMPACT OF NARRATIVE FOCUS, VIVIDNESS OF PRODUCT DEPICTION,
MENTAL IMAGERY ABILITY, AND NEED FOR COGNITION ON
TRANSPORTATION IN NARRATIVE ADVERTISING

by

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A DISSERTATION

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ABSTRACT

This dissertation explored a relatively new persuasion model, Transportation-Imagery Model, in a narrative advertising context. In particular, the study investigated the impacts of two message factors including narrative focus (process vs. outcome) and vividness of product depiction (vivid vs. pallid), as well as two individual factors including one's dispositional ability to generate vivid mental imagery and need for cognition, on message recipients' degree of transportedness in response to narrative ads.

It was found that narrative advertising featuring the process of product consumption and vivid product depiction tends to elicit greater degree of transportedness compared with that featuring the outcome of the product usage and pallid product depiction. In addition, transportation was also positively influenced by one's mental imagery ability, with high imagers being more transported than low imagers. In response to print narrative ads, transportation was also affected by need for cognition, with individuals high in need for cognition being more transported than those low in need for cognition. Moreover, transportation was found to positively influence one's affective and conative responses to narrative ads. Specifically, highly transported individuals were more likely to exhibit favorable ad attitude and brand attitude as well as stronger behavioral intention than their less transported counterparts. Theoretical and practical implications of the study as well as its limitation were discussed. Directions for future studies were also provided.

DEDICATION

This dissertation is dedicated to my husband, my parents, my professors, and all the other beautiful people who have provided me with their guidance, encouragement, support and love throughout this exhilarating adventure.

LIST OF ABBREVIATIONS AND SYMBOLS

- α Cronbach's index of internal consistency
- β Beta coefficients or standardized coefficients: the estimates resulting from an analysis performed on variables that have been standardized so that they have variances of 1
- df Degrees of freedom: the number of values free to vary after certain restrictions have been placed on the data
- η^2 Eta squared: the ratio of variance explained in the dependent variable by a predictor while controlling for other predictors
- 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
- N Size of overall data set
- p Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value; significance level
- r Pearson product-moment correlation
- SD Standard deviation: a measure of dispersion in a sample or population
- t Computed value of t test
- $<$ Less than
- $=$ Equal to

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CHAPTER 1

INTRODUCTION

Dominant persuasion models such as the Elaboration Likelihood Model (ELM) have failed to explain and predict narrative-based belief changes, in which elaboration plays a negligible role (Green & Brock, 2000). Melanie Green (1996) proposed that transportation constitutes the underlying mechanism in narrative persuasion. Transportation was conceptualized as the message viewer's experience of being lost in the text, or an immersion into the narrative world (Gerrig, 1994). Green and Brock (2000) explicated three components of transportation: mental imagery, cognitive attention, and emotional involvement. In particular, mental imagery was found to play a paramount role in the evocation of transportation.

Albeit potent, Green's (1996) Transportation-Imagery Model seems to be in its early stage of development, and further refinement of the model, especially in an advertising context, is highly warranted so as to lend more credence to this theory. However, very few scholars have empirically examined transportation in an advertising context. Escalas (2004a) found that advertising-encouraged mental simulation persuaded via narrative transportation. Transportation was found to include favorable affective responses and reduced counterarguments, which resulted in more positive ad attitude and brand evaluations (Escalas, 2004a). Despite her remarkable findings, Escalas examined transportation as something given, and did not seek to further refine and improve this model.

To address such concerns, this dissertation seeks to investigate several factors that would appear to affect transportation in a narrative advertising context. Through extensive literature

review and analysis, four factors emerged as the most promising to exert tangible impact on transportation. They are narrative focus (process vs. outcome), vividness of product depiction (vivid vs. pallid), an individual's dispositional ability to generate vivid imagery, and need for cognition.

First, advertising-encouraged mental simulation has been found to persuade via narrative transportation (Escalas, 2004a). Mental simulation focusing on the process of product consumption was found to be superior to that focusing on the outcome or end-benefits of the product usage when the advertisement has strong argument (Escalas & Luce, 2003). In particular, by manipulating individuals' thought-focus on the process versus on the outcome of the product consumption, researchers found that process-focused thought was more likely to generate favorable behavioral intentions such as purchase intention and free sample usage. However, these research findings were generated in a somewhat unrealistic advertising environment, because the researchers manipulated the thought focus essentially by varying ad processing instructions, whereas only minor changes were made to the ad copies (Escalas & Luce, 2003). To address such concern, the present study not only employed thought-focus instructions but also used different versions of narrative ad copies with focus either on the process of the product consumption or on the end-benefits of the product usage. Moreover, if process-focused mental simulation is superior to its outcome-focused counterpart, and transportation constitutes the underlying mechanism in mental simulation, it seems reasonable to deduce that transportation is also influenced by narrative focus. Therefore, the first research objective of the study is to explicate the relationship between narrative focus and transportation.

In addition, Green and her colleagues (2008) contended that factors enhancing fluency or ease of mental model construction would increase transportation, whereas those undermining this process would decrease transportation. In an advertising context, the vividness of product depiction and an individual's dispositional ability to generate vivid mental imagery have been identified as two factors that affected the ease of imagery generation (Petrova & Cialdini, 2005). As mental imagery constituted a key factor in the Transportation-Imagery Model (Green, 1996) and was influenced by the vividness of product description and one's mental imagery ability, it seems reasonable to deduce that the degree of transportedness is also likely to be influenced by these two factors. Hence, the second and the third research objectives of this study are to empirically probe the impact of (1) vividness of product depiction and (2) one's dispositional ability to generate vivid imagery on transportation. Such an investigation has potentials for producing provocative insights into the nature of transportation and enhancing our knowledge of narrative transportation.

Furthermore, the current study also attempts to examine the relationship between need for cognition (NFC) and transportation. Green (1996) initially claims that NFC is unrelated to transportation. However, in their most recent study, Green and her colleagues (2008) found that NFC influenced transportation across modality. In particular, individuals high in NFC were more transported in reading the narratives, whereas those low in NFC were more transported in viewing the narratives. Probably due to the initial nonsignificant correlation between transportation and NFC, scholars who examined transportation in an advertising context (e.g. Escalas, 2004; Escalas & Luce, 2003) have yet to investigate NFC in their studies. Nevertheless,

Green et al.'s conflicting findings in this regard prompt us to explicate a definite relationship between transportation and NFC. As a key moderator of motivation in the ELM, NFC refers to "the tendency for an individual to engage in and enjoy thinking" (Cacioppo & Petty, 1982, p. 116). ELM posits that individuals high in NFC are more likely to be motivated to process the information and diligently evaluate the argument strength via the central route than those low in NFC. Moreover, individuals high in NFC are also more adept at differentiating weak arguments from strong ones (Cacioppo & Petty, 1982).

Given the discussion above, more research is needed to address the role of NFC in narrative persuasion, as it can enrich our knowledge about the intricate relationship between elaboration and transportation. The present study is the first study to investigate NFC and transportation in narrative advertising. Moreover, this study probes the potential relationship and interaction effect between NFC and one's mental imagery vividness ability on transportation.

Transportation theory seems to have great potential for explaining and predicting narrative-based belief change. However, this theory is still in its infancy, and a clear schema delineating the relationship among the three components (mental imagery, cognitive attention and emotional involvement) has not been provided. Moreover, transportation model has not explicated the moderators of the three components and thus has limited predictive power in narrative persuasion.

As such, the present study constitutes the initial step of the author's long-term research agenda to refine the Transportation-Imagery model in an advertising context. In particular, the current study examines the impact of two message factors (narrative focus and vividness of

product depiction), and two individual dispositional traits (mental imagery ability and need for cognition) on transportation. It is hoped that the present study can shed light into the nature of transportation and help refine the Transportation-Imagery Model in an advertising context.

Chapter 2 summarizes the pertinent literature and lists research questions and hypotheses to be addressed. Chapter 3 outlines the research methods and statistical analyses adopted and performed in this study. Chapter 4 presents the research findings. In Chapter 5, some of the important findings and implications are discussed. All the questionnaires used in the current study along with the ad copies are enclosed in the Appendices.

CHAPTER 2

LITERATURE REVIEW AND RESEARCH QUESTIONS

Argument versus Narrative Persuasion in Many Disciplines

Persuasion studies in many disciplines have noted the salient distinction between argumentative reasoning and narrative account (Deighton, Romer, & McQueen, 1989). In particular, an array of fields including literature (Booth, 1974), theology (Goldberg, 1982), law (Bennett & Feldman, 1981), history (White, 1981), economics (McCloskey, 1985), communication (Fisher, 1984), and psychology (Bruner, 1986) all demonstrate such distinction.

Wells (1989) first applied this distinction to the field of advertising (Deighton et al., 1989). Wells (1989) argued that advertising consists of two basic ingredients: drama and lecture. Accordingly, advertising can take the form of either a narrative or an argument (Boller & Olsen, 1991). Narrative-based advertising depicts a story, whereas argument-based advertising features a logical demonstration of product attributes (Chang, 2009).

Definition of Narrative and Argument Advertising

Escalas (1998) defined narrative advertising as one recounting a story. According to Boller and Olsen (1991), narrative advertising features the content and structure of a story. Specifically, the narrative advertising should portray events, as well as characters that react to and undergo the events. Moreover, the plot of the narrative advertising unfolds along the timeline of the characters' reactions to the portrayed events. Chang (2009) maintained that narrative advertising depicts the product consumption or pertinent experiences or consequences of the product usage.

In contrast, argument advertising is plotless, characterless, and convinces its audience of a claim through logical arguments (Deighton et al., 1989). Wells (1989) contended that argument advertising presents product-attribute information based on arguments and evidence. Akin to a platform speech, argument advertising holds the audience members at arm's length.

Forms of Narrative Advertising

Drama advertising (story acted out by actors) and story advertising (delivered by a narrator) constitute two forms of narrative advertising (Escalas, 2004b; Padgett & Allen, 1997). The distinguishing mark between drama advertising and story advertising lies in the presence of the narrator/narration (Deighton et al., 1989).

Drama advertising is composed of characters and plots. Characters refer to protagonists depicted as acting without knowledge of the camera's existence. These characters address one another, through whom the audience members observe products or services being used (Wells, 1989). Plot typically introduces the interruption of a stable state of affairs, the ensuing crisis, and its eventual resolution (Bruner, 1986).

In contrast, story advertising contains not only characters and plots, but also a narrator (Deighton et al., 1989). Some researchers have argued that narration might impair the development of empathy by distancing audience members from the story characters. In particular, when characters' feelings and thoughts are purveyed via the narrator's verbal interpretation, audience's empathy seems to be redundant. That is, consumers' vicarious participation in the narrative appears unnecessary because interpretations of experiences have already been provided. Moreover, sometimes narration can be distracting, notably when the narrator's interpretations of

the characters' thoughts and feelings are in disagreement with audience members' vicarious experience. Further, advertisements with narration often are perceived to be of persuasive intent, and thus tend to be judged in an evaluative manner (Deighton et al., 1989). Notwithstanding such potentially negative impacts, many researchers believe that the use of narration is helpful under certain circumstances, particularly because narrative advertisements seldom garner the same level of attention as cinema, novels, or theater. Therefore, narration can make sure that audience members will be at the minimum level of attention when they are exposed to the verbal interpretation of the characters' experiences. According to Boller and Olsen (1991), the overt narration serves to embellish characters' thoughts and feelings, as well as to elaborate their experiences.

The narrative form of advertising started to garner increasing scholarly attention in the late 1980s and early 1990s (Boller, 1990; Deighton et al., 1989; Wells, 1989). Before that, the information processing and persuasion models, such as the Elaboration Likelihood Model (Petty, Cacioppo & Schumann, 1983), seemed to be based on the postulation that advertising only has an argumentative form. As such, advertisements are assumed to purvey objective brand meanings that contain attribute-benefit logic structured in a way to convince audience members of the validity of specific brand claims. Undeniably, such perception of advertisements has its reasons, particularly because the archetypal language of science employed in the studies of advertising effects has often taken the form of argument (Bruner, 1986).

Albeit traditional advertising response models such as the ELM yield provocative insights into the comprehension of the argumentative form of advertising, they bear limited

explanatory power for the effects of narrative advertising (Wells, 1989). The increasing importance of narrative advertisements calls for more potent advertising processing models (Boller & Olsen, 1991). Research dedicated to theory building in the field of narrative persuasion is highly warranted (Slater & Rouner, 2002).

Advertising Processing: Narrative versus Argument

Boller and Olson (1991) argued that theoretical accounts of advertising processing hinge upon the advertising form in discussion. In a similar vein, Deighton and his colleagues (1989) asserted that the form dimension of the advertisements influences how the advertisements are processed. In particular, two distinctive persuasion mechanisms coexist. Specifically, the argument advertising, which substantiates its claims with appeals to objectivity, is processed in an evaluative manner, whereas the narrative advertising seeks to address subjective feelings and tends to be processed in an empathic fashion (Deighton et al., 1989).

Wells (1989) concurred that consumers must alternate between two distinct states of mind in response to lecture and narrative forms of advertising. In the lecture mode, individuals, as the recipients of advertising message projected outward from the screen, analyze the information at arm's length, and utilize the outcome to guide their behaviors. Lectures present argument, evidence, as well as exhortation, and are in essence "secondhand abstractions, one step removed from life" (Wells, 1989, p. 15). Consequently, audience members are likely to believe that conclusions drawn from commercial lecture are "imposed on them" (Wells, 1989, p. 15).

In sharp contrast, narrative/drama advertising depicts object lessons by portraying stories about how the world functions. Characters in the drama speak to one another instead of delivering direct address to audience members. In the narrative mode, ad viewers become “eavesdroppers” (Wells, 1989, p. 14), and are transported into the narrative world. They switch their mental location so as to experience events unfolding yonder, on the drama side of the frame (Wells, 1989). With claims resting upon subjective grounds, drama advertising impinges upon audience members in an entirely distinct fashion. Specifically, Bruner (1986) asserted that plot and character in drama advertisements engage the audience’s imagination to perform the meaning of the drama. Audience members become “close-in observers” of or “vicarious participants” (Wells, 1989, p. 13) in the narratives, and they learn from narrative advertising by applying the inferred lessons to everyday circumstances they confront (Wells, 1989). In this sense, dramas are able to “deliver a firsthand taste, a true sample of the emotional reward that the product can provide” (Wells, 1989, p. 15). In consequence, from the audience members’ perspectives, conclusions drawn from narrative advertising are “mine” and voluntary (Wells, 1989, p. 15). In summary, Wells (1989) maintained that lectures and dramas work in essentially distinct fashions, and they resort to different mechanisms to persuade.

Argument versus Drama Advertising: Different Consumer States of Mind

The disparate patterns of influence by lecture and drama can be appropriately construed from a narrative psychology perspective. Bruner (1986, 1990) asserted that the paradigmatic and the narrative modes of thoughts constitute two distinct modes of cognitive functioning and order

experience differently. As such, in response to stimuli of different natures, people comprehend experience in disparate fashions.

According to Bruner (1986), the paradigmatic mode of thought seeks to “fulfill the idea of a formal, mathematical system of description and explanation” (p. 15). At exposure to stimuli with either implicit or explicit arguments, people resort to this mode of thought. In contrast, the narrative mode of thought essentially concerns understanding and construction of meaning, and is defined as a thinking process whereby people craft stories to make sense of the experience. In particular, “narrative deals with the vicissitudes of human intention” (Bruner, 1986, p. 17).

It would seem reasonable to argue that the Elaboration Likelihood Model (ELM), proposed by Petty and Cacioppo (Petty & Cacioppo, 1981), constitutes a dominant persuasion model that explains the underlying mechanism of the paradigmatic mode of thought. The ELM seeks to explain how rhetoric influences attitude change. Defined as the extent to which people engage in issue-relevant thinking, elaboration is assumed to fall along a continuum with one end characterized by extensive evaluation of the central merits of the message, and the other end characterized by little mental activity. The ELM posits that belief changes can take place at any point along this elaboration continuum (Petty & Cacioppo, 1981).

The ELM is essentially a dual-process persuasion model that delineates two distinct routes to persuasion (O’Keefe, 2002; Petty & Cacioppo, 1981). The central route to persuasion is characterized by extensive cognitive elaboration of the arguments in the message. When the message recipient has both elaboration motivation and ability, the central route is activated. Persuasion via the central route is achieved through the attentive assessment of the argument’s

inherent cogency. In contrast, the peripheral route to persuasion is characterized by low degree of elaboration and occurs when message recipient lacks the ability and/or motivation to process the message. Under low elaboration and in the peripheral route, message recipients tend to rely on heuristic principles, such as length of the message, likeability or attractiveness of the endorser/communicator to decide whether to accept the advocacy. The ELM predicts that persuasion achieved via the central route tends to be relatively more durable and predictive of the subsequent belief change, as well as more resistant to counterarguments (Cialdini, Petty, & Cacioppo, 1981).

The activation of different routes to persuasion is affected by elaboration motivation and ability (Petty, Heesacker, & Hughes, 1997). Motivation is contingent upon two key factors among others: personal involvement with the issue and one's need for cognition (Petty, Cacioppo, & Goldman, 1981). In particular, when a topic is of high personal relevance to the message recipient, he/she is said to be highly involved with the topic. As such, the message recipient tends to be more motivated to engage in issue-relevant thinking as well as to attentively assess the cogency of the argument strength via the central route. In sharp contrast, when a topic bears little personal relevance, the message recipient tends to be low in involvement and be less motivated to scrutinize the message arguments. Under this condition, the message recipient tends to process the information peripherally and rely on some cognitive shortcuts, such as attractiveness of the endorser or the source expertise, to make decisions via the peripheral route (Petty, Cacioppo, & Goldman, 1981; Petty, Cacioppo & Shumann, 1983).

Motivation is also influenced by need for cognition, defined as one's dispositional tendency to enjoy or engage in thinking so as to understand the world (Cacioppo & Petty, 1982). Generally speaking, individuals high in NFC are more likely to be motivated to process the information and attentively assess the argument strength via the central route than those low in NFC. Moreover, individuals high in NFC are more adept at differentiating weak arguments from strong ones (O'Keefe, 2002).

Apart from motivation, elaboration ability constitutes a second determinant for processing strategy (O'Keefe, 2002). Individuals with cognitive abilities to ponder the message are more likely to process the information centrally. Ability is influenced by factors including the presence of distraction (Petty & Brock, 1981) and prior knowledge (Cacioppo, Petty, & Sidera, 1982). When the message recipient is distracted (e.g., due to noise), he/she is less able to process the information via the central route. In addition, individuals with considerable pertinent background knowledge about the topic are more capable of evaluating the central arguments and are more adept at differentiating the weak arguments from the strong ones. Conversely, limited knowledge about the topic always causes individuals to be less able to process the information centrally (O'Keefe, 2002).

As succinctly put by O'Keefe (2002), the persuasive effect hinges upon different factors in the central route (under high elaboration) than in the peripheral route (under low elaboration). Under high elaboration, the predominant valence (negative or positive) of the message recipient's issue-pertinent thoughts will mainly impinge on the persuasive effects. In particular, the predominant valence is affected by two factors. The first factor involves whether the

advocated position is proattitudinal or counterattitudinal for the message recipient. Everything else being equal, proattitudinal messages tend to elicit more favorable thoughts in message recipients. In contrast, everything else being equal, counterattitudinal messages are likely to trigger more negative thoughts in message recipients (O'Keefe, 2002). The second factor is argument strength. When people process the information via the central route by scrutinizing the message argument, strong arguments tend to elicit more favorable attitude changes than do weak arguments. Under low elaboration, the persuasive effect relies on cognitive shortcuts, which are activated by peripheral cues, such as attractiveness of the communicator (Petty, Cacioppo, & Schumann, 1983).

The ELM is extremely potent in explaining rhetoric-based belief change. It recognizes the fact that sometimes message recipients are active thinkers, attentively assessing the argument strength to make decisions, whereas other times they are cognitive misers, making decisions based on some simple heuristics. In addition, the ELM delineates two distinct routes to persuasion taken by active thinkers and cognitive misers under different circumstances. Further, the ELM specified the conditions under which different routes will be activated. Lastly, the ELM has identified several factors such as involvement, source expertise, attractiveness of the endorser that tend to influence rhetoric-based belief change. These strengths of the ELM make it a powerful tool in predicting and explaining persuasion through argumentative advertising.

Nonetheless, it is pivotal to note that the ELM bears limited explanatory power outside the realm of rhetorical persuasion. Albeit potent, the ELM mainly applies to rhetorical persuasion and thus fails to adequately address the workings of the narrative mode of thought.

According to Prentice and Gerrig (1999), neither of the dual-process models (ELM, HSM) “seems to capture the phenomenological experience of reading (or hearing or viewing) a work of fiction” (p. 453).

In fact, the persuasiveness of narratives has long been recognized in literature. Within the context of advertising, the narrative mode of thought has also been examined. Nevertheless, a persuasion model that is mainly applicable to narrative-based belief change was still lacking prior to the proposition of the Transportation-Imagery Model by Melanie Green in 1996.

Research on narratives prior to Green mainly viewed the narrative-based belief change as a result of empathy. Ever since Aristotle’s *Poetics* (Trans, 1987), literary theorists have stated that the persuasiveness of narratives lies in their ability to move an audience to empathize with the story characters (Booth, 1961; Martin, 1986). Empathy can be construed as a “hedonically compatible and concordant” affective reaction that the reacting individual attributes to happenings to another person and/or “by this person’s expressive and behavioral responses to them” (Zillmann, 2006, p. 155). In a narrative advertising context, empathy has been conceived as a dynamic process through which audience members imaginatively project themselves into the experiences of advertising characters (Booth, 1961; Katz, 1963).

According to Zillmann (2006), a valid comprehension of empathy is based upon a lucid recognition of the joint operation of both emotion-inducing circumstances and a model’s affective responding. Zillmann (2006) suggested that the causal and expressive components in a model’s affect appear to be sequentially dependent. As such, prior knowledge of causal conditions of affective reactions should facilitate pronounced empathic responding. Conversely,

when causal circumstances of a model's affective display remain unclear, the intensity of resultant empathy in the observer should be relatively diminished (Zillmann, 2006). Furthermore, the conceptual separation of causal and expressive elements in a model's affect also ensures close attention to types of causal conditions as well as to the linkage between the model's and the observer's reactions to such conditions (Zillmann, 2006).

Regarding the type of the presentation of causal circumstances, Zillmann (2006) stressed that the reproductive fidelity of affect-eliciting circumstances tended to impact the affective reactions of the observer. Zillmann (2006) stated that closer (re)presentation of the actual stimulus conditions tended to result in greater affective impact. Analogously, advertising scholars also highlighted the key role of verisimilitude in determining the persuasiveness of the narrative advertising. Verisimilitude refers to the believability of character actions and dialogue within the story context (Todorov, 1977). To have verisimilitude, the advertising story must portray the product consumption experience in such a fashion that it conforms to consumers' general understanding of human experience. A "contrived" or "hokey" narrative advertising message fails to evoke empathic responding in audience members (Wells, 1989, p. 15). Moreover, the vivid portrayal of affective reactions of story characters is equally essential in eliciting consumers' empathic reactions. In advertising stories, characters interact with or use the brand, and thus display overt indications about their affective responses toward the brand (Boller & Olson, 1991). By virtue of their interactions with and reactions to the advertised brand, characters in narrative advertisements can offer viewers a taste of the psychosocial consequences germane to the brand consumption (Boller, 1990). It is through characters' response to the events

that experiential meanings of the advertised brand are conveyed. In this sense, audience members process narrative ads by establishing empathic relationships with the advertising characters. Through such relationships, individuals are able to vicariously experience the personal relevance of the advertised brand (Boller & Olson, 1991). Note that all modes of representation (both visual and non-iconic) can be potent in evoking affect reactions (Zillmann, 2006).

From the audience members' perspective, the empathic process involves two aspects: character identification, and vicarious participation in the story events (Boller & Olson, 1991). First, they may identify with a character. In particular, during their exposure to a narrative advertisement, their empathic feeling normally starts with their identification with a character. Second, they may vicariously participate in that character's experience. In other words, consumers experience the story events vicariously by virtue of the cognitive and affective perspectives of the story character with whom they identify. In the beginning, such vicarious participation in the events may be just some thoughts and perceptions. Nevertheless, as their identification with the characters intensifies, their vicarious participation evolves to a deeper level, such that they may exhibit some emotional and even some physical reactions. Occasionally, consumers with a short sense of empathy may even feel as if they virtually "lived through" the story events (Boller & Olson, 1991, p. 173).

The persuasive power of narratives stems from the human tendency to arrange information about people and their actions in the form of a story according to narrative psychology. Adaval and Wyer (1998, p. 207) asserted that, "much of the social information we acquire in daily life is transmitted to us in the form of a narrative." Moreover, people tend to

associate their interpretations of experience to others by narrating, or telling stories. Narrative processing hinges upon existing narrative knowledge structures. In particular, Fiske (1993) contended that people retain causal relations inherent to recurring narrative episodes as structures of causality and store such structures as prototypes in their minds. People process incoming narrative information by referring to the prototypes or structures developed from their personal experiences (Schank & Abelson, 1995). In this way, people comprehend how and why a story evolves. In addition, people also tend to picture themselves in the same situation as depicted in the narrative. To put it differently, people are likely to engage themselves in mental simulation, defined as “the cognitive construction of hypothetical scenarios” (Taylor & Schneider, 1989, p. 175).

Consistent with such human inclination to understand experience by narratives, narrative advertising has been found to prompt consumers to construct functional consequences and symbolic meaning from the depicted stories so as to understand the advertisement. Whereas the dominant persuasion models such as the ELM fail to identify the underlying mechanism of narrative persuasion, the above-discussed research on the narrative mode of thought was equally unable to evolve into a comprehensive persuasion model that explains and predicts the effectiveness of the narrative-based persuasion, where the evocation of mental imagery plays a paramount role.

Nevertheless, the previous research on the narrative mode of thought identified several elements of persuasive narratives: character identification and vicarious participation in the story events by the audience, as well as the intrinsic characteristics of the narrative including

successful development of characters and verisimilitude. These elements combined with the human tendency to process information in a story format may lead to empathy towards the narrative. Such empathy is where the persuasive power of narratives resides.

Melanie Green's Transportation-Imagery Model

An audacious attempt to explicate a model specifically applicable to narrative persuasion was made by Melanie Green in 1996. Green (1996) first proposed that *transportation* constitutes the underlying mechanism in narrative-based belief change. The conceptualization of “transportation” is based on its use in the book entitled *Experiencing the Narrative World* by Richard Gerrig in 1993.

Someone (“traveler”) is transported, by some means of transportation, as a result of performing certain actions. The traveler goes some distance from his or her world of origin, which make some aspects of the world of origin inaccessible. The traveler returns to the world of origin, somewhat changed by the journey. (Gerrig, 1993, pp. 10-11).

The literal experience of traveling was employed here to construe the processes that take place during one’s exposure to a story (Gerrig, 1993). Such feeling of being lost in a narrative (Nell, 1988) seems quite common for many people. Gerrig (1993) noted that transportation is an immersion into the text, or being lost in the narrative.

Following Gerrig (1993), Green (1996) further asserted that with exposure to a highly involving narrative, transportation is likely to be activated. Transportation is conceptualized as “an integrative melding” of cognitive attention, mental imagery, and emotional involvement.

That is, transportation entails attentional focus, mental imagery, and emotional responses (Green & Brock, 2000, p. 701).

First, as transportation is perceived as a convergent process, all of the message recipients' mental systems and capacities become focused on the events taking place in the narrative. Attentional focus constitutes one attribute of transportation (Green, 1996).

In addition, both the degree of transportedness of the narrative and the induced belief changes hinge upon the evocation of measurable imagery. Isolated images that are not pertinent to a focal story are not powerful enough to induce belief change. Moreover, the potency of mental imagery is contingent upon the narrative structure to some extent. As such, if the narrative is a mere collection of provocative descriptions, transportation is unlikely to be elicited. Instead, transporting narrative entails an identifiable storyline, with a beginning, middle and end, in which emerged questions and problems are only answered and resolved in the subsequent portions of the narrative (Green, 1996).

Furthermore, transportation is an emotional immersion into the narrative. Transported individuals tend to exhibit positive attitude towards the characters in the narrative. The experiences and the beliefs of these characters may then have a heightened influence on the message recipients. As a result, message recipients tend to endorse story-consistent beliefs. In addition, Green (2004) found that more transported individuals are more likely to endorse story-consistent beliefs regardless of their prior knowledge and experience.

In sum, transported individuals tend to be cognitively attentive to the events occurring in the narrative, experience vivid mental imagery, and generate strong emotional reactions to the

story characters. As a result, upon returning to their world of origin, transported individuals tend to exhibit story-consistent beliefs (Green, 1996).

In this scenario, the transported individuals are not likely to simply follow the central or the peripheral route to persuasion as identified by the ELM. Moreover, although the induced belief change via transportation does not involve elaboration, it has been found to be more enduring and persistent than the one realized via central route, and even have absolute sleeper effects (Appel & Richter, 2007).

Gilbert (1991) noted that audience members are naturally susceptible to believing whatever they read or hear, whereas disbelieving tends to be an arduous correction process. As such, transportation into a narrative world renders message recipients less motivated (or less able) to disbelieve any specific conclusion. In addition, transported individuals are engrossed in the narrative such that they may become less willing to stop and critically examine propositions manifested therein (Green & Brock, 2000).

The Inception of Transportation in Narrative Persuasion

Green and Brock (2000) empirically investigated the role of transportation in narrative persuasion. Transportation can influence readers via three means: fostering bonds with characters, decreasing counterarguments, and rendering narrative events more like real experience.

In particular, transportation induces heightened positivity towards sympathetic characters (Green & Brock, 2000). As such, transportation seems to be a significant predictor of positive evaluation for story characters. Empirically, highly transported individuals rated characters more positively than their low-transported counterparts. Moreover, it was found that highly transported

individuals were also more likely to endorse story-consistent beliefs on both specific and general items implied by the narrative.

Moreover, the study revealed that transportation results in less counterarguing, as indicated by “Pinocchio Circling” (Green & Brock, 2000). In particular, because the traditional thought-listing coding technique was not sufficiently sensitive enough to capture cognitive responding to stories, Green and Brock (2000) created “Pinocchio Circling” to assess message recipients’ questioning or doubtful reaction to a story. It was found that highly transported readers circled fewer false notes in the story than less-transported readers. Specifically, “Pinocchio Circling” required participants to go back over the story after they had completed dependent measures and circle any “false notes,” or parts of the story that did not appear factual to them. Green and Brock (2000) contended that false noting in narrative communication was akin to counterarguing (Brock, 1967) in rhetorical communication because both were processes that might impair the text influence. Green and Brock (2000) used two ways to calculate Pinocchios: the number of circles drew and the number of lines of text on which circles appeared. A circle was deemed a single unit, but might correspond to a single word or several sentences. Circles were indicative of the number of ideas people considered to be “false notes,” whereas lines presented a measure of the actual amount of text people rejected. An ANOVA with reported transportation, source (fiction vs. nonfiction), and instruction sets (theater, narrative, fourth-grader) as factors indicated only a main effect of transportation on both lines and circles, with highly transported individuals drawing fewer circles and circling fewer lines. In other words,

highly transported individuals were more likely to endorse the story and were less likely to engage in disbelieving processing. As such, transportation enhanced perception of authenticity.

An ANOVA using need for cognition (NFC), source, and instructions as the independent variables revealed that NFC was unrelated to Pinocchios for both circles and lines. In particular, participants high in NFC (as measured by a median split) did not draw more Pinocchios than their counterparts low in NFC. Neither did NFC significantly affect beliefs or character evaluations. Therefore, unlike transportation, NFC did not appear to constitute a reliable moderator of the narrative influence on beliefs or character evaluations (Green & Brock, 2000).

In consequence, the Pinocchio technique appears to lend additional evidence supporting the distinction between transportation and cognitive elaboration: highly transported individuals circled fewer false notes in the story compared with their less-transported counterparts; no such differences were observed between individuals high versus low in NFC. Extent of transportation reliably distinguished between participants who circled many false notes (less transported participants) versus few false notes (highly transported participants). In contrast, need for cognition (Cacioppo & Petty, 1982), which measures the natural enjoyment of cognitive effort was unrelated to the circling of false notes. As such, transportation and cognitive elaboration are hypothesized to be distinct constructs. Following this line of reasoning, the NFC Scale would not necessarily predict transportation. In effect, Green and Brock (2000) also found that the correlation between NFC and transportation was small and lacked statistical significance.

Transportation seems to be resistant to external manipulation, because the truth status and the pre-reading instructions did not affect degree of transportation (in experiments one to three)

(Green & Brock, 2000). Neither did truth status and instructions influence beliefs and character evaluations. Further, there was no interaction effect between transportation and truth status and instruction on beliefs and character evaluations.

Green and Brock (2000) performed mediational analyses (Baron & Kenny, 1986) in experiment four to explicate the relationship between pre-reading instructions, transportation, beliefs and character evaluations. Results demonstrated that transportation constituted the underlying mechanism in narrative-based belief change. Furthermore, researchers failed to find any significant effect of absorption on beliefs and character evaluations. Therefore, the level of absorption could not account for story-consistent beliefs.

Given the association between transportation into a narrative world and reported greater degree of endorsement of story-consistent beliefs, researchers argued that the scientific study of persuasion should refocus on poetics in lieu of rhetoric (Green & Brock, 2000). According to Green and Brock (2000), the dearth of empirical studies on narrative persuasion results from the fact that the dominant dual-process persuasion models such as the ELM and the HSM fail to identify the apposite mechanism in narrative-based belief change. Prentice and Gerrig (1999) echoed that neither of the dual-process models appears to “capture the phenomenological experience of reading (or hearing or viewing) a work of fiction” (p. 543). In effect, this study highlighted the fundamental difference between rhetorical and narrative communication. Specifically, rhetoric is much affected by framing. For instance, previous research (e.g., Eagly & Chaiken, 1993) revealed that source credibility influences the impact of arguments. Conversely, Green and Brock (2000) found when the audience members are transported into the narrative

world, the source exerted negligible influence. In other words, transportation tends to be immune to source manipulation. That is, regardless of the truth status of the narrative, transportation can affect real-world beliefs. As such, less credible sources and speakers without cogent arguments may employ narratives to more effectively achieve their persuasive goals.

In summary, transportation is distinct from cognitive elaboration (Petty & Cacioppo, 1986) and demonstrates characteristics consistent with its conceptualization by Gerrig (1993): temporary immersion (involving cognitive attention, mental imagery, and emotional involvement) into the narrative world afar from a reader's original situation. It was found that the entire Transportation Scale was predictive of beliefs and character evaluations across the four experiments. Meanwhile, an alternative process, need for cognition, was unable to moderate story-consistent beliefs and evaluations. In addition, Green and Brock (2000) further maintained that any text can elicit transportation theoretically, but well-crafted and high-quality narratives are more likely to activate such transportation experience.

Green and Brock (2000) also predicted that narrative-based belief change, notably to the extent that it activates transportation, would result in stronger and more enduring beliefs than rhetoric-based change. The prediction is based upon three underlying premises including: 1) narrative is the universally preferred mental structure for organizing and retrieving human experiences (Schank & Abelson, 1995); 2) compared with rhetoric, narrative is more conducive to integrating affective and cognitive processes for opinion formation, other things being equal; 3) attitudes formed both affectively and cognitively (e.g., Edwards, 1990; Fabrigar, 1995) tend to be more enduring (Rosselli, Skelly, & Mackie, 1995).

Furthermore, the narrative worlds are broadly defined with respect to modality. Whether the narrative is in audio, written, or cinematic formats, the same transportation process is theorized to occur. Accordingly, the reader (as used in Gerrig, 1993) includes any message recipients (reader, listener, or viewer) of a narrative (Green & Brock, 2000).

According to Green, the degree of transportation is affected by message attributes such as the level of artistic craftsmanship and the degree of adherence to the narrative structure. In addition, the degree of transportedness is also affected by the message recipient's attributes such as imagery abilities, field dependence, and hypnotic susceptibility. And there is a moderate correlation between dispositional empathy and transportation (Green, 1996; Green & Brock, 2000). Nevertheless, transportation may not generally vary by gender.

Transportation has been measured by a 15-item self-report scale (Green & Brock, 2000). The scale consists of 11 general items and four imagery items specifically germane to the target narrative. All items are measured on a seven-point scale anchored by *very much* and *not at all*. The theoretical range of the Transportation Scale was 15 to 105, with higher scores indicating greater degree of transportedness. The scale taps into cognitive dimension, affective aspects, as well as visual imagery processes and these three factors nevertheless are intercorrelated (*rs* ranged from .41 to .21). The transportation experience results from the synergy of the combined processes (Green & Brock, 2000).

Application of Transportation Theory to the Advertising Domain

Mental simulation elicits narrative transportation. Previous studies long asserted that people naturally think about and interpret the world around them through stories (Bruner, 1990;

Kerby, 1991). Schank and Abelson (1995, p. 1) echoed that narrative processing is so pervasive that “all of our knowledge is contained in stories and the mechanisms to construct and retrieve them.”

In an advertising setting, Escalas (2004) empirically validated previous researchers’ prediction (e.g., Fiske, 1993; Polkinghorne, 1991) that mental simulation tends to elicit narrative processing. Mental simulation refers to the cognitive construction of hypothetical situations (Taylor & Schneider, 1989) in a story or a narrative format (Fiske, 1993). Mental simulation is episodic in nature, as people imagine an event unfolding over time. As such, simulations are similar to stories or narratives (Fiske, 1993) linking actions and outcomes in a causal fashion (Bruner, 1990; Pennington & Hastie, 1986; Stein & Albro, 1997).

Escalas (2004a) empirically demonstrated that advertising-encouraged mental simulation persuades via narrative transportation. In effect, Escalas (2004a) was among the very few scholars who examined transportation theory in the advertising domain. It was found that transportation was accompanied by positive affective responses and reduced critical thinking, which results in more favorable ad attitude and brand evaluation.

In an advertising context, Phillips, Olson, and Baumgartner (1995) maintained that consumption visions, or self-constructed mental simulations of future consumption scenarios, encourage consumption behavior because these visions involve the self-enacting, detailed, product pertinent behaviors. According to Escalas (2004a), such consumption visions serve as a subset of possible mental simulation stories and are the most germane ones to an advertising setting, where advertisers seek to evoke imagined product consumption experience.

Escalas (2004b) empirically examined self-focused mental simulation evoked by a print ad for running shoes. It was a 2 x 2 between-subjects design, with simulation condition (simulation encouraged versus not encouraged) and argument strength (strong versus weak) as two factors. It was found that under the mental-simulation-encouraged condition, that is, when ad viewers were simulating themselves using the advertised product with favorable consequences, they tended to ignore argument strength, and their ad attitude and brand evaluations did not vary significantly in response to the ad with strong or weak argument. Escalas (2004b) argued that when simulation was activated, audience members became lost in or absorbed by their thoughts in the form of a narrative, which precluded them from thinking critically about the advertisement and its arguments. As such, argument strength did not exert any impact on simulators' ad attitudes and brand evaluations. In contrast, under mental simulation not-encouraged condition, that is, when ad viewers were not simulating, they seemed to go through an analytical cognitive process. In this case, argument strength influenced viewers' attitudes toward the ad, with strong argument eliciting more favorable ad attitude compared to weak argument. The lack of statistically significant difference in terms of brand evaluation was due to the fact that respondents in simulation not-encouraged condition universally did not like the advertised running shoe, even when the argument was strong. Besides, it is possible that because of low involvement, ad viewers were only attentive to those peripheral cues in the ad, such as the appearance of the picture of the stimulus shoe, which is consistent with the ELM (Petty, Cacioppo, & Schumann, 1983). That is, nonsimulators tended to engage in analytical thought processes rather than narrative thought processes. Analytical thought processing leads to more

critical thoughts and fewer positive emotions. The end result of analytical processing is less favorable ad attitude and brand evaluations, compared with the narrative processing evoked via mental simulation. Nevertheless, regardless of why nonsimulators did not like the shoes, Escalas (2004b) found that ad-encouraged mental simulation can overcome ad viewers' negative perception of the stimulus brand and result in more favorable ad attitude and brand evaluations.

Escalas (2004a) measured narrative transportation in two ways: the three-item transportation scale and thought coding for narrative structure. It was found that mental simulation leads to narrative thought structure and narrative transportation, which result in more positive effect on ad attitude and brand evaluation. Furthermore, when examining the effect of narrative transportation on ad attitude and brand evaluation, Escalas (2004a) noted that transportation affected ad attitude and brand evaluation by eliciting positive emotions and reducing critical cognitive responses. As such, narrative transportation, positive feelings, and reduced critical thinking resulted in more persuasive ad appeal than one based primarily on analytical processing, as indicated by ad attitude and brand evaluation.

Escalas (2004a) concluded that different types of processing were employed by simulators and nonsimulators. In particular, narrative processing transported simulators' attention away from critical evaluations and elicited more favorable affective responses in terms of more positive ad attitude and brand evaluation. In contrast, non-simulators engaged in analytical cognitive processing where argument strength influenced their ad attitude. As such, ad viewers generated more critical thoughts and fewer positive emotions, resulting in less favorable ad attitudes and brand evaluations.

Mental simulation type (process versus outcome) influences behavioral outcomes. As previously discussed, mental simulation was likely to elicit narrative processing, in which transportation constitutes the underlying mechanism (Escalas, 2004a). Social psychological studies further indicated that mental-simulation type affects behavioral outcomes (Pham & Taylor, 1999). In particular, most successful mental simulation focuses on the process of attaining a goal in lieu of the outcome of completing the goal (Taylor, Pham, Rivkin, & Armor, 1998). In other words, in order to achieve a goal, it is more effective to simulate those progressive steps towards the goal than to simulate experiences of success brought by reaching the goal (Pham & Taylor, 1999). For instance, for a recovering alcoholic, it would be more useful for him to simulate how he is going to tackle the anticipated pressures of drinking at a Super Bowl party than to simulate how good he will feel if he finishes the entire game without binging (Pham & Taylor, 1999). In fact, mentally going over those problem-solving activities may allow the alcoholic to formulate a specific plan for handling such nerve-racking event (Escalas & Luce, 2003).

Escalas and Luce (2003) extended such findings into the advertising domain and yielded consistent results. Specifically, it was found that process-focused pre-advertisement thought led to more favorable behavioral intentions than outcome-focused pre-advertisement thought, when the print ad involved strong arguments.

In process-focused simulation, planning and emotion regulation constitute two mediators (Taylor et al., 1998). Process-focused simulation emphasizes a series of actions required to achieve an outcome, and thus forge the linkage between action and outcome. As such, process-

focused simulation is likely to encourage plan formation, during which simulators mentally go through a timeline of specific activities, constructing a detailed, evolving story. In other words, the process-focused simulations consist of a sequence of casually linked, specific actions or events that conform to real-world constraints. These mentally visualized behaviors are highly pertinent to problem-solving activities in reality. Due to the realistic and specific nature of simulation, the plan for attaining the goal includes precise and feasible details. This enhances the likelihood that the plan will be carried out and thus affect behavioral intentions and behaviors (Kahneman & Miller, 1986). By contrast, outcome-focused simulation emphasizes the end of the story, that is, the positive benefits or results of the actions. The actions are assumed to have occurred, but the step-by-step details are not necessarily considered. It is argued that process-versus outcome-focused modes of thought encourage the creation of different types of narratives in working memory (Escalas & Luce, 2003).

In an advertising context, process-focused advertising messages stress the process of product consumption. Alternately, outcome-focused advertising messages often encourage consumers to simulate favorable outcomes of product consumption. Such messages feature an “eye on the prize” focus and tend to stimulate ad viewers to concentrate on the pleasure arising from the achievement of positive benefits or outcome (Escalas & Luce, 2003).

In their first experiment, Escalas and Luce (2003) found that when the argument strength in the advertisement was strong, process-focused mental-simulation resulted in more favorable behavioral intentions (product purchase intention and free-sample usage intention) than outcome-focused mental simulation. In particular, it was noted that under the process-focused instructions

condition, individuals thought not only about the process but also about the outcome of using the advertised product (vitamins), whereas under the outcome-focused instructions condition, individuals thought more exclusively about the end benefits of using the vitamins. As such, the empirical findings demonstrated that process-focused mental simulation resulted in both behavior and outcome thinking within the context of plan formulation. More importantly, the study revealed that individuals under the process-focus instructions condition exhibited stronger behavioral intention to purchase the product and use a free sample of the product compared with their counterparts under the outcome-focus instructions condition. To summarize, Escalas and Luce (2003) noted that process-focused mental simulation resulted in the formulation of a progressive plan to achieve a favorable outcome, with outcome being one component of the plan. By imagining taking the advertised vitamins on a daily basis, participants seemed to visualize the necessary behavioral steps to obtain the benefits of the vitamin usage. As a result, they appeared to be more willing to take these steps as indicated by greater purchase intention and free sample usage intention.

To examine the moderating impact of argument strength on thought-focus instructions, Escalas and Luce (2003) conducted another 2×2 between-subject experiment with thought focus and argument strength as two factors. Specifically, researchers manipulated thought focus with pre-advertisement thought-focus instructions. Moreover, researchers manipulated argument strength as a potential moderator of the process-versus outcome-focus effect between participants. The argument strength manipulation was achieved by varying the credibility and the strength of specific “scientific” claims made in each advertisement. Consistently, researchers

found that under the process-focused condition, participants thought about both the process and outcome of the advertised product (a fictitious vitamin brand) consumption, whereas under outcome-focused condition, participants thought predominantly about results of the product usage. In addition, the process-focused thoughts tended to enhance behavioral intentions only in an ad with strong arguments and were found to diminish behavioral intentions in an ad with weak arguments compared to outcome-focused thoughts. As such, compared to outcome-focused mental simulation, process-focused mental simulation rendered participants more sensitive to the argument strength. It was argued that such heightened sensitivity in process-focused mental simulation was due to the associated planning processes. Under the process-focused mental simulation condition, when their behavioral ability to attain the outcome was weak (when exposed to weak argument), participants seemed to be more unwilling to formulate an actionable plan compared to the outcome-focused simulation condition.

Based on the above-mentioned findings, Escalas and Luce (2003) empirically demonstrated the superiority of process-focused mental simulation to outcome-focused mental simulation in inducing favorable behavioral intentions when ads involve strong arguments. In addition, the researchers identified an interaction effect between argument strength and thought-focus. Specifically, process-focused simulation appeared to make the consumers more discerning to argument strength, such that consumers showed enhanced behavioral intentions in response to strong argument, whereas they decreased their behavioral intentions in response to the weak argument.

It is pivotal to note that the findings with respect to the impact of thought-focus on behavioral intention were obtained in a somewhat unrealistic advertising environment, because Escalas and Luce (2003) mainly used pre-advertisement thought-focus instruction to manipulate individuals' thought-focus on process versus outcome of the product consumption. For instance, in the case of the vitamin ad, process-focused thought instructions required participants to imagine themselves "using the vitamin being advertised," whereas the outcome-focused thought instructions asked participants to "imagine the end benefits of using the vitamin being advertised." As participants imagine, process-focused thought instructions ask people to "focus on how you would feel if you took these vitamins EVERY DAY," and focus on "how you would feel as you used the advertised product," whereas the outcome thought focus ask people to focus on "the benefits you would gain from using the vitamins" and "as a result of using the advertised product" (Escalas & Luce, 2003, p. 250). In the real world however, such a manipulation technique does not seem to be a practical option for advertisers to implement.

To address such concern, Escalas and Luce (2003) suggested that future research should use narrative advertisements to more efficiently manipulate the degree to which ad viewers focus on the process versus the outcome by including the product-consumption process as a central component of the depicted story in the ad. Narrative advertising depicts experiential brand meaning, or meanings about the self-relevant outcomes pertinent to brand consumption by portraying stories about one or more characters' brand relevant experiences. Due to the human inclination to process information in narratives, narratives fulfill two key functions in an advertising context (Chang, 2009). First, they portray the benefits of intangible products in a

meaningful manner (Mattila, 2000; Padgett & Allen, 1997). Second, they can hook consumers and transport them into the narrative world (Escalas, 2004; Green & Brock, 2000). More importantly, the degree of transportedness is positively correlated with message recipients' ad attitude.

Moreover, if the process-focused mental simulation is superior to its outcome-focused counterpart in inducing favorable behavioral intentions (Escalas & Luce, 2003), and transportation constitutes the underlying mechanism in mental simulation (Escalas, 2004), it seems reasonable to infer that the degree of transportation is also influenced by narrative focus. Therefore, the first research objective of the present study is to explicate the relationship between narrative focus and transportation. Specifically, by using different versions of narrative advertising copies to manipulate thought focus on the process versus the outcome of product consumption, the researcher expects that advertisements with narrative focus on the process would generate higher degree of transportation than those with focus on the end-benefits of product usage. Hence, H1 has been proposed as below:

H1: Transportation is influenced by narrative focus of the advertisements, with process-focused narrative advertisements eliciting more transportation than outcome-focused narrative advertisements.

Fluency of imagery construction influences transportation. Transportation is phenomenologically similar to flow, a state of complete absorption in the task (Csikszentmihalyi, 1982; Green et al., 2008). A flow state entails a smooth and uninterrupted focus on an activity (Green et al., 2008). Consistently, recent perspectives on transportation have indicated that

fluency of processing constitutes a key element of transportation experience (Busselle & Bilandzic, 2008; Vaughn et al., 2007). Two recent studies on transportation examined the fluency of imagining in evocation of transportation. Busselle and Bilandzic (2008) posited that readers would seek to build mental models while reading, and when the model construction process proceeds smoothly, transportation is likely to be activated. In a similar vein, Vaughn and colleagues (2007) proposed that feelings of processing fluency tend to enhance transportation, so long as audience members attribute such feelings to the narrative. Based on these findings, it is argued that factors enhancing fluency or ease of mental model construction will increase transportation, whereas those undermining this process will reduce transportation (Green et al., 2008).

In an advertising context, the vividness of product depiction and individual's dispositional ability to generate vivid mental imagery was identified as two factors that affect the ease of mental imagery generation (Petrova & Cialdini, 2005).

In particular, vividness essentially concerns the clarity of images. And controllability reflects the extent to which images can be held in mind and/or altered in specific ways at will (Marks, 1972). Informational vividness consists of three factors: "(a) emotionally interesting, (b) concrete and image provoking, and (c) proximate in a sensory, temporal, or spatial way" (Nisbett & Ross, 1980, p. 45). Not commonly independent in practice, these three factors are nevertheless conceptually distinct. Each factor consists of different components, and each of these components tends to independently contribute to greater inferential impact of more vivid information (Nisbett & Ross, 1980).

Specifically, the degree of emotional interest of an event hinges upon several components. One pivotal set of components involves the nature of one's familiarity with the participants of the event, and affective stance towards them (Nisbett & Ross, 1980). For instance, events that happen to one's acquaintances or oneself are more emotionally interesting than those that happen to strangers. Independent of the first set of components, the degree of emotional interest of an event is also affected by "the hedonic relevance of the event to the participants" (Nisbett & Ross, 1980, p. 46). That is, the degree of resultant emotional interest is in direct proportion to the degree to which an event impacts the participants' needs, desires, motives, and values (Nisbett & Ross, 1980).

In contrast, the concreteness dimension revolves around the extent of detail and specificity about actors, actions, and situational context. These components are conducive to the "imaginability" of information, or its tendency to elicit sensory imagery. For example, the information that "Jack was killed by a semitrailer that rolled over on his car and crushed his skull" conveys information with greater impact than the message "Jack sustained fatal injuries in an auto accident" (Nisbett & Ross, 1980, p. 47). In this particular case, the concrete information alone can enhance emotional impact however message recipients' familiarity with, or affective stance towards the event protagonist Jack may be. To a large extent, the concreteness of the first statement and the ensuing involuntary imagery contribute to its emotional impact, which then generates stronger inferences (Nisbett & Ross, 1980). Moreover, image-provoking information was found to exert greater impact on inferences (Enzle, Hansen, & Lowe, 1975). Indeed, it has

been found empirically that people have difficulty making associations that lack concreteness and imaginability (Wason & Johnson-Laird, 1965).

In addition, informational vividness is also affected by one's temporal, spatial, and sensory proximity to it. For instance, the news about a bank robbery that just occurred in one's neighborhood is considered more vivid than the news about a bank robbed last week in another town (Nisbett & Ross, 1980). Moreover, ample anecdotal evidence indicates that first-hand acquired information, or information procured through one's own sensory apparatus is deemed more vivid and thus more apt to influence one's assessment and inferences than information received verbally via an indirect channel.

Indeed, compared to nonvivid information, vivid information has been found to carry a disproportionate weight in judgment and decision making (Borgida & Nisbett, 1977; Reyes et al., 1980; Shedler & Manis, 1986), the so-called "vividness effect." Researchers (e.g., Taylor & Thompson, 1982; Taylor & Wood, 1983) delineated several conditions under which the vividness effect is likely to occur. In particular, they suggested that the vivid information tends to be disproportionately influential when 1) the vivid information competes with less vivid information for attention; 2) the message bears personal relevance to the message recipient; 3) the vivid information induces an affective reaction or is emotionally arousing.

Past studies have manipulated the level of vividness through the use of the presence of pictures (Keller & Block, 1997; Kisielius & Sternthal, 1984), concrete versus abstract pictures (Babin & Burns, 1997), concrete versus abstract words (Rook, 1987), or narrative versus statistical information (Keller & Block, 1997).

Specifically, Petrova and Cialdini (2005) noted that accessibility of consumption imagery evoked by the advertisement is a mediator of the effects of imagery appeals. Advertisements featuring imagery appeal seek to induce viewers to immerse themselves in imagined product experiences. Typical imagery advertisements feature phrases such as “imagine yourself,” “visualize yourself here,” and “picture how it would be.” Vividness of product depiction and consumers’ mental imagery abilities were found to affect the ease of imagery construction and have opposite effects on product preference under different circumstances (Petrova & Cialdini, 2005).

It was noted that when the product depiction is high in vividness, imagery ads result in stronger product preference. Conversely, when the product depiction is low in vividness, imagery ads result in weaker product preferences (Petrova & Cialdini, 2005).

Vividness was manipulated by presenting either personal case stories or abstract impersonal information. As in Rook’s (1987) manipulation, two versions of stories have been created, with one featuring a fictitious couple’s reaction upon learning they have HPV, the other replacing summary abstract information with the personalized story. The vivid and nonvivid versions were matched as closely as possible in terms of content and length.

In Petrova and Cialdini’s (2005) studies, researchers empirically examined the influence of vividness of product depiction and the presence of imagery-inviting appeals on imagery fluency. In particular, they varied the concreteness of the pictorial product depiction (study 2) and used either easy-to-imagine verbal product description versus nonexperiential information such as numerical ratings (study 3) to manipulate the vividness of product depiction.

It was found that participants reported more favorable emotional responses (as measured by the extent to which the ad made them feel good, excited, stressed, elated, bad, interested, unpleasant, sad, happy, bored, pleasant, uninterested, tranquil, flat, positive emotions, or negative emotions) at their exposures to ads featuring high-vividness than ads involving low-vividness. In addition, it was found that participants under the high-vividness conditions reported more product-relevant thoughts, and more product attributes in these thoughts than their counterparts under low vividness condition. These findings were in line with previous research suggesting heightened cognitive elaboration in response to vivid information (Kisielius & Sternhal, 1984). However, no statistically significant difference was detected between ads with or without imagery appeals in the number of product-relevant thoughts and the number of product attributes reported in these thoughts. This suggests that imagery appeals per se did not increase cognitive elaboration.

In addition, MANOVA analyses confirmed the interaction effect between the vividness of the product depiction (vivid versus pallid) and the presence of imagery appeals on brand attitudes and purchase intentions. Imagery appeals had the opposite effects impinging upon the vividness of product depiction. In the presence of imagery appeals, ads featuring high vividness of product depiction resulted in more favorable brand attitude and purchase intention than ads featuring low vividness of product depiction. Nevertheless, in the absence of imagery appeals, the vividness of the product depiction did not influence brand attitude or purchase intention.

Furthermore, there was an interaction effect between vividness of product depiction and presence of imagery appeals on the accessibility of the consumption imagery. To measure the

accessibility of the consumption imagery, researchers asked participants to visualize the advertised service (vacation) as well as to provide a written description of the mental image. The ease of this subsequent generation of the consumption imagery was gauged with six 9-point scales. The first three items seek to measure 1) whether the participants were able to imagine the vacation, 2) how easy it was for them to imagine the vacation, and 3) how long it took them to create the mental image. For the remaining three items, participants were asked to rate the mental image as 1) vivid and clear versus vague, 2) alive and dynamic versus not dynamic, and 3) detailed versus not detailed. Petrova and Cialdini (2005) found that in the presence of imagery-inviting appeals, high vividness of product depiction increased the perceived ease of subsequent imagery generation, whereas low vividness of product depiction decreased the perceived ease of imagery construction. Next, following the procedures used by Baron and Kenny (1986), Petrova and Cialdini (2005) conducted additional analyses and found that imagery accessibility had significant effects on both brand attitudes, and intentions. Furthermore, when the effect of imagery accessibility was controlled, the interaction effect of vividness of product depiction and the presence of imagery appeal was no longer significant for both brand attitudes, and purchase intention. Finally, the mediating role of the imagery accessibility was further validated by the significant estimate of the mediated effect for brand attitudes and purchase intention.

In study 3, Petrova and Cialdini (2005) replicated and extended the results from the previous study using another stimulus ad, with different manipulations of imagery fluency and with a direct measure of actual product choice. Specifically, a restaurant review ad created by Pham, Meyvis, and Zhou (2001) was used as the stimulus material. Researchers varied he

original review's degree of vividness into three conditions. The original version, rated as very easy to visualize was used as the first version. In the second version, the original information was presented in a table with corresponding numerical ratings. In the third version, the original information was presented by including the numerical ratings in parentheses after the vivid description of each of the items. To manipulate the processing instructions, Petrova and Cialdini (2005) adopted a previously validated technique (Keller & McGill, 1994). In the imagery processing condition, participants were asked to fully harness their imagination, not to be coldly analytical, to close their eyes, visualize the description, and rely on the power of their imagination to picture it; in the analytical processing condition, participants were asked to be careful, to stay well reasoned, and not to let their imagination overcome their analytical judgment; no specific instructions were provided in the third condition.

To measure the actual product choice, researchers initially told participants that their names would be automatically entered in a drawing for a \$30 cash prize. At the end of the experiment, participants were then asked to choose between the \$30 cash prize and a \$50 gift certificate from the restaurant featured in the ad. Their choice of the gift certificate for the restaurant over the monetary prize was used as the measure of product choice.

To gauge cognitive elaboration, recall, and affect as alternative accounts for the predicted reverse effects of imagery appeals, researchers asked participants to list their thoughts in response to the restaurant review and answer an open-ended recall question. Two independent raters coded 1) the number of product-relevant thoughts, 2) the valence of these thoughts, 3) the number of product attributed mentioned in the thought listings, and 4) the number of product

attributes recalled correctly. In addition, participants were asked to indicate the extent to which the restaurant review made them feel good, bad, excited, stressed, happy, pleasant, unpleasant, interested, bored, positive emotions, and negative emotions. Moreover, researchers used the Private Self-Consciousness Scale (Fenigstein et al., 1975) to assess the predicted moderating role of internal focus. The style of Processing Scale (Childers, Houston, & Heckler, 1985) was also used to control for differences in personal preference of visual versus verbal style of processing. Regression analysis was conducted with the choice of a gift certificate from the restaurant over the \$30 cash prize as the outcome/predicted variable, style of processing as a covariate, and three independent variables including type of information, type of processing instructions, and private self-consciousness. The analysis identified a three-way interaction among the three independent variables. Using the median split technique on the private self-consciousness, researchers found that among the high private self-consciousness group, there were main effects of type of information, and type of processing instructions on the preference of the gift certificate over the monetary prize. In addition, for participants high in internal focus, imagining instructions exerted opposite effects on product preferences depending upon the vividness of product information. When product vividness was high, the imagining instructions increased product choice. When the vivid product depiction was combined with numerical ratings, the imagining instructions did not influence product choice. When the product was presented only with numerical ratings, imagining instructions decreased their product choice. Note also that three types of information were equally effective in the absence of imagining instructions. For participants low in internal focus, neither the main effects of type of information, and type of instructions, nor the interaction

effect between them was significant. As such, it seems that the interaction effect between the type of information and type of instructions was only significant among individuals attuned to their internal experiences.

Moreover, there was a main effect of information type on participants' affective responses, with vivid product depiction resulting in more favorable affective reactions than the numerical ratings. There were no significant effects of type of processing instructions on affective responses. These results indicate that affective response to the message is not likely a mediator of the effects. When examining the cognitive responses and recall, researchers found significant interactions between type of information and type of processing instructions for the number of product-related thoughts, the number of product attributes mentioned in the thought listings, and the number of product attributed recalled. The pattern of these interactions was in a direction different from the above-noted results for product choice. In particular, when the product depiction included both vivid information and numerical ratings, the imagining instructions produced more product-related thoughts, and product attributes mentioned in the thoughts or recalled. However, when the product information included either vivid description or numerical ratings, the imagery appeals decreased product-related thoughts, thoughts about specific product attributes, and recall. In addition, when the product was described with vivid information or a combination of vivid and numerical ratings, more product features were recalled than when the product was depicted with numerical ratings alone. As such, these findings are in line with previous research suggesting that vivid information facilitates memory (Kieras, 1978). In Petrova and Cialdini's (2005) study, such findings also indicated that the effects of imagining

instructions could not be attributed to enhanced cognitive elaboration or recall. Moreover, the effect of valence of the product relevant thoughts was not significant, which lent further support that the preference of the cognitive responses did not mediate the observed effects.

Petrova and Cialdini (2005) concluded that the persuasive effect of imagery appeals can be reversed by conditions that decrease the fluency with which consumers imagine the product-consumption experience. In particular, vividness of the product depiction was identified as one factor that impacted the fluency of imagery generation. Study 2 and Study 3 indicated that in the absence of vivid product depiction, imagery appeals or asking consumers to imagine a favorable product experience exerted a negative impact on their product evaluations. More importantly, study 3 suggests that adding non-experiential, numerical information to the vivid depiction impaired the persuasiveness of imagery appeals. In other words, imagery appeals/instructions were effective only when the vivid information was the only information for consumers to process. It is noteworthy also that in both study 2 and study 3, the different product depictions were equally effective in the absence of imagining or analytical processing instructions. As such, the differential effects of imagining instructions were not simply caused by the different information types of the product. Given the above-mentioned discussion, the researcher formulates the second research hypothesis.

H2: Transportation is influenced by the vividness of product depiction: narrative advertising featuring vivid product description will elicit greater degree of transportation than that featuring pallid product depiction.

As noted above, besides the vividness of product depiction, Petrova and Cialdini (2005) also observed that individuals' dispositional ability to create vivid mental images constituted the second factor that affected fluency of imagery generation. In effect, the chronic vividness of imagery ability has garnered ample scholarly attention in psychology (e.g., Crawford, 1982; Katz, 1983; Shaw & Belmore, 1982). It was found that individuals vary systematically in terms of vividness of their mental imagery (cf. Betts, 1909; Galton, 1880).

In particular, vividness of imagery ability constitutes one of the two main dimensions of an individual's imagery ability, with the other dimension being one's ability to control and manipulate mental images (e.g., Katz, 1983; White, Sheehan, & Ashton, 1977). Previous research showed that a shared trait governs one's vividness of imagery across modalities (e.g., Richardson, 1969; Sheehan, 1967). Moreover, vividness of imagery was found to be uncorrelated with gender (Sheehan, Ashton, & White, 1983) or intelligence (e.g., Richardson, 1969; Rossi & Fingeret, 1977). Instead, vividness of imagery was found to be associated with proofreading ability (Wallace, 1991), hypnotizability (e.g., Crawford, 1982; Sheehan & McConkey, 1982), divergent thinking (e.g., Forisha, 1981; Shaw & Belmore, 1982), and paired-associate recall (Rossi & Fingeret, 1977).

Despite the above findings, how chronic vividness of imagery affects decision making remains essentially unexplored. In effect, two competing hypotheses (the affinity hypothesis and the creativity hypothesis) coexist with respect to how this dispositional trait might cast influence on one's usage of vivid and salient information vs. nonvivid and pallid information in decision making (Pham, Meyvis, & Zhou, 2001).

The affinity hypothesis states that vivid imagers would be more susceptible to vivid information than nonvivid imagers (Swann & Miller, 1982). That is, chronic vividness of imagery would amplify informational vividness on judgement and decision making. Pham et al. (2001) offered two theoretical reasons for this potential amplification effect. First, vivid imagers tend to be more sensitive to vivid information, as they are arguably more competent processors of vivid and imaginal materials than nonvivid imagers (e.g., Hanggi, 1989; Hiscock, 1976; Marks, 1973). Following this line of reasoning, one may deduce that vivid imagers are more receptive to concrete and imagery-rich information (cf. Richardson, 1977). Second, vivid imagers may naturally prefer processing information that is concrete and imagery-rich (cf. Richardson, 1977). Consistently, Katz (1983) observed that high imagers opted for imagery-based strategies across a variety of tasks over verbal strategies. As such, if chronic vividness of imagery could amplify the impact of informational vividness in judgement and decision making, it is because of an intrinsic match between this dispositional trait and the information type with respect to responsiveness and/or preference.

In contrast, the creativity hypothesis states that vivid imagers are apt to be less affected by vivid information than nonvivid imagers. Past research suggested that vividness of imagery would enhance one's creativity in problem-solving (Finke, 1993; Forisha, 1981; Gonzales, Compos, & Perez, 1997; Rhodes, 1981; Shaw & Belmore, 1982). Shepard (1978) proposed several potential explanations. First, imagery is less constrained than verbal communication, the predominant usage of the later serving to perpetuate established ideas. Second, imagery is endowed with a perceptual richness which enables a more acute grasp of details and nonobvious

relationships. Third, imagery allows for spatial manipulation and intuition. Fourth, the potential affective load of imagery renders itself more powerful in motivating. Moreover, other research indicated that vividness of imagery appeared to be both related with a propensity to idiosyncratically perceive and construe information, and with a tendency to completely absorb oneself with attentional objects (Crawford, 1982; Sheehan & McConkey, 1982). As such, it follows that if these tendencies affect decision making, less attention would be devoted to “obvious” information than “beyond the obvious” information (Pham et al., 2001, p. 229). In summary, creativity hypothesis states that vividness of imagery might mitigate the effects of vivid and salient information (Gonzales et al., 1997; Sheehan & McConkey, 1982; Shepard, 1978). Empirically, Pham et al. (2001) found that low imagers were not influenced by the abstract attribute information but were affected only by the vivid testimonial information. Medium imagers were influenced by both the abstract information and vivid testimonials. High imagers were influenced by abstract information while remaining unaffected by the vivid testimonials. The results prompted Pham and his colleagues to propose that vivid imagers generally are inclined to elaborate on less salient parts of the decision field. However, Pham et al. (2001) also identified a condition under which the chronic vividness of imagery ability did amplify responses to vivid information in judgement and decision making. Specifically, when the vivid information was the only information accessible, high imagers were more responsive to the valence of the vivid information than medium and low imagers. In summary, Pham et al. (2001)'s study reveals that vivid imagers process decision information in a unique fashion. Vivid imagers appeared to rely on an independent cognitive style and an idiosyncratic fashion of

information processing. Vivid imagers seem to reinterpret the information so as to match with their personal perceptual (Sheehan & McConkey, 1982). In addition, vivid imagers appear to have a stronger absorption tendency by immersing themselves into the attentional object (Crawford, 1982; Sheehan & McConkey, 1982). In summary, compared with nonvivid imagers, vivid imagers are more likely to rely on less salient information, because of the synergy of their immersion into the attentional objects and their independent cognitive style. Meanwhile, due to their idiosyncratic processing style and the constraint of attentional resources, vivid imagers seem to depend less on highly salient information. Vivid imagers may discredit “too obvious” information albeit paying attention to it. Meanwhile, given the limited amount of attention, as vivid imagers pay more attention to less salient information, they devote relatively less attention to the more salient information as nonvivid imagers do.

In an advertising context, Petrova and Cialdini (2005) examined the role of the dispositional ability to generate vivid imagery in their first study. In particular, researchers examined the effects of imagery fluency in the context of a vacation ad. Two versions of the ad were used, with one version containing imagery-inviting phrases (inviting consumers to imagine their experience at the advertised destination), and the other without such appeals. At least one week before the experiment, participants filled out the Vividness of Visual Imagery Questionnaire or VVIQ (Marks, 1973). During the experiment, participants viewed one of the two versions of the vacation ad. After a five-minute distraction task of rating the artistic combination of geometric figures, participants then rated 9-point semantic differential items to measure their brand attitudes (bad/good, unfavorable/favorable, and negative/positive) and

purchase intentions (likelihood of considering the vacation in the future, requesting a brochure with further product information, visiting the website shown on the ad, and visiting the advertised destination given that they were to plan such a vacation and had the necessary time and money). The order of the two sets of items was counterbalanced. There were no significant effects of order of the questions on attitudes or intentions.

Regression analyses indicated a significant interaction effect between the presence of imagery appeal and individuals' dispositional imagery vividness on brand attitudes, and purchase intentions. For high imagers, the imagery ad resulted in more favorable attitudes and purchase intentions than non-imagery ad. For low imagers, ad with imagery-inviting phrases resulted in more negative brand attitudes and purchase intentions than non-imagery ad. As such, it seems that the ease of imagining the consumption experience can affect the formation of people's product evaluation. Specifically, imagery appeals proved to be ineffective for people with low imagery vividness abilities.

In summary, both vividness of product depiction and individuals' dispositional imagery vividness influenced the ease of imagery generation and reversed the effects of imagery appeals. In addition, Petrova and Cialdini (2005) also demonstrated that these effects were mediated by the accessibility of the image of experiencing the product. As such, the fluency of imagery generation affected product choice after exposed to the ad immediately (Study 2), and after a delay created by a distraction task (study1), or when completing different process and personality measures. It was found that the increased accessibility of the consumption imagery was the underlying process. Moreover, imagery appeals did not influence affective responses in both

study 2 and 3, the observed effects of imagery appeals on product evaluations could not result from the differences in the affective response to the message. Furthermore, the nonsignificant effect of the imagining instructions on the valence of the cognitive responses in study 2 and 3 revealed that the effects of the imagining instructions on product choice did not result from the favorability of the cognitive responses. Finally, in study 3 the positive effects of imagery appeals in the vivid condition were accompanied by reduced number of product pertinent thoughts and recall. All these results show that cognitive elaboration and recall do not appear to be mediators of the effects of imagery appeals. Additionally, such findings suggest that when consumers resort to imagery processing, attribute recall tends to be an inaccurate measure of advertising effectiveness.

Since mental imagery constitutes the key factor in Transportation-Imagery Model (Green, 1996) and is impacted by the vividness of product description and one's dispositional imagery abilities, it seems reasonable to deduce that the degree of transportation is also likely to be influenced by these two factors. Hence, another research focus of the present study is to empirically probe the influence of vividness of product depiction and one's dispositional ability to generate vivid imagery on transportation. Such investigation is of great value because it could help shed provocative insights into the nature of transportation and add to our knowledge of narrative transportation.

Green has contended that the activation of transportation at one's exposure to a narrative is moderated by message recipient's attributes such as imagery skills (Green, 1996; Green & Brock, 2000). However, Green and her colleagues failed to empirically demonstrate the

significant influence of one's imagery ability on transportation (Green et al., 2008). Given such discrepancy, the researcher suspects that part of reason may be attributed to the scale that researchers used in their study. Green noted that participants generally scored high on Paivio's Individual Differences Questionnaire (1971), which did not allow them to establish the link between mental imagery ability to transportation (Green et al., 2008).

To address this concern and also help to revalidate Petrova and Cialdini's (2005) findings, the researcher used a more sensitive instrument, the Vividness of Visual Imagery Questionnaire or VVIQ (Marks, 1973, 1995) to measure consumers' dispositional abilities to generate mental imagery. This instrument has been widely employed in numerous studies for more than thirty years and has proved to be reliable and valid. The third hypothesis has been proposed as follows:

H3: In response to narrative advertising, high imagers will be more transported than low imagers.

Potential impact of need for cognition on transportation. As a key moderator for motivation in the ELM, need for cognition (NFC) refers to one's dispositional tendency to enjoy or engage in thinking so as to understand the world (Cacioppo & Petty, 1982). The ELM states that individuals high in NFC are more likely to be motivated to process the information and diligently evaluate the argument strength via the central route than those low in NFC.

As noted above, Green (1996, p. 20) initially claimed that NFC and transportation are not significantly correlated. In addition, NFC is not a significant moderator for belief change or character evaluations in narrative persuasion. However, Green and her colleagues (2008) recently found a low to moderate correlation between NFC and transportation across modality

(film versus print). That is, NFC seems to affect the degree of transportedness across modality.

Individuals high in NFC were more transported when reading the narrative (in print), whereas those low in NFC were more transported when watching the narrative (in a movie).

Probably due to the initial insignificant correlation between transportation and NFC, scholars who examined transportation in an advertising context (e.g., Escalas, 2004; Escalas & Luce, 2003) have yet to investigate NFC in their studies. Nevertheless, Green's conflicting findings in this regard prompts us to explicate a definite relationship between transportation and NFC. More research is needed to address NFC in narrative persuasion, because it can enhance our knowledge about the intricate relationship between elaboration and transportation. Hence, the present study has become the first study to investigate NFC and transportation in narrative advertising. Specifically, the first research question has been formulated as below:

RQ1: Does the Need for Cognition influence the degree of transportation in narrative advertising?

Moreover, previous research identified a moderate correlation between vividness of imagery ability and NFC ($r = .21, p < .05$), suggesting these two dispositional traits were related but not identical (Pham et al., 2001). In a narrative advertising context, the current study seeks to probe the potential relationship and interaction effect of these two individual factors on transportation. Hence, the next research question has been proposed as follows:

RQ2: Is there any interaction effect between need for cognition and individual's mental imagery ability on transportation?

Transportation constitutes a key mechanism in narrative persuasion (Green et al., 2008). Empirical findings consistently have shown that transported individuals are more likely to adopt attitudes and beliefs consistent with the narrative (e.g., Dal cin, Zanna, & Fong, 2004; Green, 2004; Green & Brock, 2000; Wang & Calder, 2006). In an advertising setting, Escalas (2004) also noted that transportation tends to evoke positive affective responses and decrease counterarguments. Based on the previous studies, the researcher has proposed that transportation would consistently result in more favorable brand attitude and ad attitude as well as stronger behavioral intention in a narrative advertising context. Hence, the following hypotheses have been formulated.

H4: Transportation will positively influence the brand attitude, with highly transported individuals showing more favorable brand attitude than their less transported counterparts.

H5: Transportation will positively influence the ad attitude, with highly transported individuals showing more favorable ad attitude than their less transported counterparts.

H6: Transportation will positively influence the behavioral intentions, with highly transported individuals showing stronger behavioral intentions than their less transported counterparts.

Product category. Previous advertising studies on transportation have predominantly used ads of packaged goods such as shampoo and vitamin (e.g., Escalas & Luce, 2003). Nonetheless, narrative form of advertising tends to be uniquely effective in pitching experiential services (Mattila, 2000). In effect, by using experiential services ads (i.e., restaurant and tourism ads), Petrova and Cialdini (2005) identified several factors that impact consumption imagery

fluency. Albeit the encouraging findings, the relationship between these factors and transportation remains unexplored. Thus, the last research objective of the current study is to probe the potential influences of these factors on transportation by using both experiential service ads and packaged goods ads. Given the discussion, the third research question has been formulated below:

RQ3: Does transportation effect vary between narrative ads of manufactured goods and experiential services?

CHAPTER 3

RESEARCH METHOD

Experimental Design

A 2 x 2 x 2 between-subjects experimental design was carried out to address the research questions and hypotheses. In particular, the three independent variables were narrative focus (process vs. outcome), the vividness of product depiction (vivid vs. pallid), and product category (a fictitious packaged product vs. an experiential service brand). Eight cells were produced including 1) one narrative ad about a manufactured product focusing on the process of product consumption and featuring vivid product depiction; 2) one narrative ad about a service focusing on the process of service consumption and featuring vivid service depiction; 3) one narrative ad about a manufactured good focusing on the process of product consumption and featuring pallid product depiction; 4) one narrative ad about a service focusing on the process of service consumption and featuring pallid service depiction; 5) one narrative ad about a manufactured product focusing on the outcome/end-benefits of product consumption and featuring vivid product depiction; 6) one narrative ad about a service focusing on the outcome/end-benefits of service consumption and featuring vivid service depiction; 7) one narrative ad about a manufactured good focusing on the outcome/end-benefits of product consumption and featuring pallid product depiction; and 8) one narrative ad about a service focusing on the outcome/end-benefits of service consumption and featuring pallid service depiction.

Participants

450 undergraduate students from the College of Communication and Information Sciences at a large southeastern U.S. university were recruited to participate in this experiment in exchange for extra credit. The researcher recruited students from an array of different mass communication classes, including Introduction to Advertising, Introduction to Public Relations, Public Speaking, News Reporting, Introduction to Telecommunication, Introduction to Mass Communication, Motion Pictures, and Research Methods. They were told that the experiment was to examine individuals' responses to advertising.

Stimulus Materials

Product category. According to Wells (1994), when we evaluate the effectiveness of brand-centered narrative advertising messages, it is pivotal to conduct research among prospects in lieu of the general population, which inevitably includes many non-prospects. Moreover, non-prospects can confound outcomes especially when randomization cannot be perfectly achieved (Wells, 1994).

As college students constitute the participants of this study, the researcher selected a recorder pen as the packaged product, and a music application as the experiential service brand. More specifically, the recorder pen allows students to record professors' lectures and can then convert the audio files into a word document, whereas the music application, akin to Pandora and Slacker, boasts more powerful functions than such existing music applications. Both categories were deemed appropriate to market among college students.

Stimulus ads. To ensure the good quality of the ad copies, the researcher hired a professional copy writer to create different versions of the narrative ads. The researcher had several rounds of telephone conversations with the copy writer before and during the creation of the ad copies, to make sure that the latter fully understood and captured the difference between the ad copies.

Pretest. Upon receiving the ad copies, the researcher ran a pretest among 80 undergraduate students to see if the manipulations of narrative focus and vividness of product depiction were successful. Forty of the students were exposed to the copies of the recorder pen ads, and forty of them were presented with the copies of the music application ads. Within each group of forty, each subgroup of ten students read one of the four different versions of the same product.

For the pretests, the researcher did not include advertising processing instructions before the advertising copies. The manipulation check for thought focus on the product consumption process was the average score of three items rated on a scale ranging from 1 (not at all) to 100 (very much). These questions were as follows: “1. While reading the ad, how much did you think about how the product works? 2. While reading the ad, how much did you think about the process of using the product? 3. While reading the ad, how much did you think about the easy steps of using the product?” The manipulation check for thought focus on the end benefits of product consumption was the average score of three items rated on a scale ranging from 1 (not at all) to 100 (very much). The questions were as follows: “1. While reading the ad, how much did you think about the outcome of using the product? 2. While reading the ad, how much did you

think about the benefits you would gain from using the product? 3. While reading the ad, how much did you think about the end results of using the product?" The manipulation check for vividness of product information was the average score of six items rated on a scale ranging from 1 (not at all) to 100 (very much). These questions included the following items: "1. How vivid was the product description in the ad? 2. How imagery-provoking was the ad? 3. Do you think the description of the product is specific? 4. Do you think the description of the product is detailed? 5. How likely is the ad to elicit your imaginability? 6. How likely is the ad to evoke your sensory imagery?" In the actual questionnaires, the generic word "product" was replaced with either "recorder pen" or "music app" based on the product categories featured in the ad copies.

Regarding the recorder pen, the vividness of product depiction was successfully manipulated ($M_{\text{vivid}} = 68.5$, $SD = 11.8$, $M_{\text{pallid}} = 57.5$, $SD = 11.7$, $t(38) = 2.6$, $p = .01$), whereas the manipulation of narrative focus was somewhat problematic ($M_{\text{process}} = 65.7$, $SD = 21.1$, $M_{\text{outcome}} = 60.7$, $SD = 21.1$, $t(38) = -.84$, $p = .41$ for the average process score), and ($M_{\text{process}} = 63.9$, $SD = 22.1$, $M_{\text{outcome}} = 67.9$, $SD = 18.8$, $p = .55$ for the average outcome score). Regarding the music app ads, the narrative focus manipulation was not successful on the process ($M_{\text{process}} = 69.6$, $SD = 15.2$, $M_{\text{outcome}} = 65.3$, $SD = 12.8$, $t(38) = .98$, $p = .34$), and was not successful on the outcome either ($M_{\text{process}} = 70.7$, $SD = 21.4$, $M_{\text{outcome}} = 71.5$, $SD = 15.2$, $t(38) = -.15$, $p = .88$). However, the manipulation of the vividness of product depiction was successful ($M_{\text{vivid}} = 67.3$, $SD = 13$, $M_{\text{pallid}} = 51.1$, $SD = 18.6$, $t(38) = 3.2$, $p = .003$).

As such, the manipulation in terms of the vividness of product depiction was effective for both product categories, whereas the manipulation of the narrative focus was problematic. In consequence, the researcher further revised the ad copies so as to make the narrative focus more salient in different versions. In addition, the researcher also added advertising processing instructions before the ad copies so as to maximize ad viewers' thought focus on the process or the outcome respectively. More specifically, when the experiment was conducted, before reading the process-focused ad copies of the recorder pen and the music app, students first were exposed to the following processing instruction: "Next, you will read a print ad of a recorder pen/a music application. While you are reading this ad, we would like you to focus on the process of using the recorder pen/the music application, that is, focus on the easy steps of using the recorder pen/the music application." In a similar vein, before reading the outcome-focused ad copies of the recorder pen and the music app, students first were presented with the outcome-focused processing instruction: "Next, you will read a print ad of a recorder pen/a music app. While you are reading this ad, we would like you to focus on the outcome of using the recorder pen/the music app, that is, focus on the benefits that you would gain from using the recorder pen/the music app."

Product likeability. To ensure the comparability in terms of the product likeability of the recorder pen and the music app, the researcher did another pretest using revised ad copies among 60 undergraduate students. The students were randomly assigned to two groups, with the first group being exposed to the first version (vivid ad featuring the process of product consumption) of the recorder pen ad, whereas the second group to the first version (vivid ad featuring the

process of service consumption) of the music app ad. Upon finishing reading the ads, students were asked three questions aiming to measure their likeability of the two products on a continuous scale ranging from 0 to 100. The three questions are “How do you like the product?” “How good is the product?” and “How attractive is the advertised product?” A T-test was performed using the mean of the three questions as the dependent variable and the product category as the categorical independent variable. It was found that their likeability of the two products did not differ significantly from each other ($M_{\text{music app}} = 79.8$, $SD = 11$, $M_{\text{recorder pen}} = 77.1$, $SD = 9.3$, $t(58) = 1$, $p = .31$).

Manipulation checks. In addition, to ensure the revised ad copies coupled with the advertising thought processing instructions can effectively manipulate ad viewers’ thought focus, the researcher then performed a third pretest among 80 different students. 40 students were instructed to read the copies of the revised recorder pen ads, whereas the remaining 40 students were instructed to read the revised copies of the music app ads. Within each group of 40, each subgroup of ten students read one of the four different versions of the same product/service. The same set of questions was used to check the manipulation of narrative focus and the vividness of the ad.

It was found that for the recorder pen ads, the manipulation of the narrative focus successfully influenced the process-focus check ($M_{\text{process}} = 67$, $SD = 20.2$, $M_{\text{outcome}} = 44.1$, $SD = 23$, $t(38) = 3.3$, $p = .002$). However, the thought-focus manipulation did not significantly influence the outcome-focused check ($M_{\text{process}} = 73.2$, $SD = 16.9$, $M_{\text{outcome}} = 77.3$, $SD = 16.6$, $t(38) = -.762$, $p = .45$). Regarding the vividness of product depiction, the difference between the

vivid versions and the pallid versions was significant ($M_{\text{vivid}} = 69.7$, $SD = 15.8$, $M_{\text{pallid}} = 56$, $SD = 15.7$, $t(38) = 2.7$, $p = .009$).

Regarding the revised music app ads, the same pattern was observed. In particular, the thought focus manipulation was effective for the process-focus check ($M_{\text{process}} = 82.8$, $SD = 6.7$, $M_{\text{outcome}} = 61$, $SD = 26.6$, $t(38) = 2.1$, $p = .041$). In contrast, the thought focus manipulation did not significantly influence the average score of the outcome items between the music app ads featuring the process or the outcome of the product consumption ($M_{\text{process}} = 79.4$, $SD = 9.8$, $M_{\text{outcome}} = 83$, $SD = 7.5$, $t(38) = -1.3$, $p = .20$). In addition, the vividness of product depiction was found to be significantly different between the two vivid versions and the two pallid versions ($M_{\text{vivid}} = 78.6$, $SD = 12.2$, $M_{\text{pallid}} = 55$, $SD = 13.6$, $t(38) = 5.7$, $p < .001$).

In summary, with advertising processing instructions and revised ad copies, the researcher was able to successfully manipulate people's thought focus on the process of the product consumption and vividness of product depiction before running the final experiment. The failure to influence people's thought focus on the outcome of product usage replicated the relevant findings of Escalas and Luce's study (Escalas & Luce, 2003). In particular, they also found that participants in the process-focused conditions thought about both process and outcome, whereas participants in the outcome-focused condition thought mainly about the outcome of product usage. In effect, previous mental simulation literature suggested that advertising reading instructions stressing the process of the product usage would cause deviations from the typical focus of thoughts on the outcome of product consumption (Escalas &

Luce, 2003). Empirically, in the current study as well as in Escalas and Luce's study, researchers all found that ad viewers would focus on the outcomes regardless of processing instructions.

Procedure

The experiment was based on the presentation of stimuli materials and the collection of questionnaire responses via computer. An online survey was conducted in a survey lab equipped with 12 computers for a period of four weeks. Students were asked to fill out an online questionnaire consisting of the following measures that were displayed consecutively: Vividness of Visual Imagery Questionnaire 2 (VVIQ 2), the Need for Cognition Scale (Cacioppo & Petty, 1982), the ad processing instructions, one of the four versions of ad copy, the transportation scale, dependent measures, and demographic questions. The online survey ended with a debriefing statement, and the entire study lasted about twenty to thirty minutes. During the first two weeks, only ad copies of the recorder pen were tested. The 12 computers were numbered with one to 12, with every four of computers showing one of the four versions of the recorder pen ads. Students were randomly assigned to sit before different computers and therefore had an equal chance of being exposed to any of the four versions of the recorder pen ad. The same procedure was adopted during the second two weeks with computers showing the ads of the music application.

Mental Imagery Ability

The Vividness of Visual Imagery Questionnaire 2 or VVIQ-2 (Marks, 1995) was used to assess individuals' dispositional ability to generate vivid mental imagery. The VVIQ-2 is based on the original VVIQ that Marks developed in 1972, the creation of which stimulated a steady

flow of studies probing the VVIQ's psychometric properties and its links with mental performance.

Following McKelvie's suggestions (1995) with respect to the improvements of VVIQ, Marks (1995) modified the original scale and produced the VVIQ-2. The new scale consists of 32 items, all of which are rated along a five-point likert scale of vividness in the eyes closed condition. One indicates "No image at all, you only "know "that you are thinking of the object", whereas five indicates "Perfectly clear and as vivid as normal vision." Subsequent studies consistently showed that individuals' performance ability varies significantly among high and low imagers as measured by VVIQ-2. For instance, Rodway, Gillies, and Schepman (2006) found high imagers were significantly more capable of detecting salient changes to pictures compared to low imagers.

Minor revision of the VVIQ2. During the second round of pretest among the 60 undergraduate students, in addition to the product likeability check, the researcher also asked the students to fill out the VVIQ 2. The purpose of the test was to see whether U.S. college students can perfectly understand the scale and closely follow the instructions, given that the scale was created by a British scholar more than three decades ago, and certain words and expressions used in the test were rarely spoken in the United States. Upon their completion of the VVIQ2 test, the researcher conducted personal interviews with each of these students so as to identify all the words that are confusing or difficult to understand. Based on the feedback from the students, the researcher eliminated and revised all the confusing words or expressions. The VVIQ2 used in the current study was included in the Appendix A. In the current study, the VVIQ2 was a continuous

variable with a possible range from 0 to 160. The descriptive statistics indicated that VVIQ2 score was normally distributed ranging from 41 to 160, with 120 as its median.

Need for cognition. The 18-item Need for Cognition Scale (Cacioppo, Petty, & Kao, 1984) was used to measure an individual's dispositional ability to engage in and enjoy effortful thinking. All items were measured on a five-point likert scale, with 1 indicating "*extremely unlike me*" and 5 "*extremely like me*."

Dependent Variables

Transportation. Participants completed the transportation scale (Green & Brock, 2000), with 11 general questions gauging cognitive, affective, and imagery engagement, and several specific questions about participants' mental images of the main characters and the advertised product. Participants responded on a scale ranging from 1 (not at all) to 7 (very much). After reverse coding several items, higher numbers indicate higher degree of transportation.

Brand attitude. Three items were used to measure ad viewers' ad attitude on a continuous scale ranging from 0 to 100: "1. How do you like the brand? 2. After reading the ad, do you hold favorable attitudes towards the brand? 3. After reading the ad, do you hold positive attitudes towards the brand?"

Ad Attitude. The following three items measured on a continuous scale from 0 to 100 were used to gauge individual's ad attitude: "1. How do you like the ad? 2. Do you have positive attitudes towards the ad? 3. Do you have favorable attitudes toward the ad?"

Behavioral intention. Following Escalas and Luce (2003) and Petrova and Cialdini (2005), the behavioral intentions were measured by the average score of four items. All items

were rated on a scale ranging from 1 (definitely would not) to 100 (definitely would). The first item asked “How likely would buy this product?” The second item asked “How likely would you use a free trial of this product?” The third item asked “How likely would you buy the advertised product given that you plan to buy such a product and have the necessary time?” The fourth item asked “how likely would you request additional information of the product?”

Demographics. Towards the end of the survey, participants were asked to give their age, gender, and class standing. 197 students did the online survey with recorder pen ads as the stimuli, and 156 of them completed all the questions (both dispositional measures and the questions about the ad) without any missing data. The analysis on the recorder pen ads were thus based on the answers from these 156 students ($N_{\text{freshman}} = 30$, $N_{\text{sophomore}} = 53$, $N_{\text{junior}} = 56$, and, $N_{\text{senior}} = 17$), 75.6% of these participants were female students, whereas 24.4% of them were male students ($N_{\text{female}} = 118$, $N_{\text{male}} = 38$). The age of these participants was normally distributed, ranging from 18 to 25 with 20.3 as their mean age.

253 students did the online survey with music app as the stimulus, and 237 of them submitted their answers without any missing data. Among the 237 students, 22.8% were freshmen ($N_{\text{freshman}} = 54$), 38.4% were sophomores ($N_{\text{sophomore}} = 91$), 21.9% were juniors ($N_{\text{junior}} = 52$), and 16.9% were seniors ($N_{\text{senior}} = 40$). Regarding the gender of these students, 78.5% of them were female students, whereas 21.5% of them were male students ($M_{\text{female}} = 186$, and $M_{\text{male}} = 51$). In addition, the age variable of these students was normally distributed, ranging from 18 to 25, with 20.1 as their mean age.

Statistical analyses. To address research questions and hypotheses, the researcher adopted certain statistical techniques and performed a series of statistical analyses, including descriptive statistics, median split technique, computing function, T-Test, Factorial ANOVA, One-Way ANOVA, regression, and mediational analyses using SPSS statistical software. Detailed explanations on the analyses were provided in the next chapter.

CHAPTER 4

RESULTS

The current study investigated two product categories, namely a recorder pen, and a music application. As such, while answering and addressing research questions and hypotheses, the researcher presented the findings of these two product categories simultaneously.

To address H1 and H2, the researcher performed a three-way factorial ANOVA test, with the continuous transportation score as the dependent variable, narrative focus (process vs. outcome), vividness of product depiction (vivid vs. pallid), and product category (recorder pen vs. music app) as three categorical independent variables.

H1 predicts that transportation is influenced by the narrative focus of the advertisements, with process-focused narrative ads eliciting more transportation than outcome-focused narrative ads. First, the ANOVA test indicated there was no significant main effect of product category on transportation, $F(1,385) = .13, p = .72$. In addition, there was a significant main effect of narrative focus on transportation, $F(1, 385) = 34.62, p = .03, \eta^2 = .01$, with process-focused ads eliciting higher degree of transportedness than outcome-focused ads ($M_{process} = 65.21, SD = 12.54, M_{outcome} = 62.55, SD = 13.34$). As such, H1 was supported. Moreover, no significant three-way interaction effect among product category, narrative focus, and vividness of product depiction on transportation was found, $F(1,385) = .004, p = .95$. There was no significant two-way interaction effect between narrative focus and product category on transportation either, $F(1, 385) = .0, p = .98$.

H2 predicts that transportation is influenced by the vividness of product depiction, with vivid narrative ads eliciting more transportation than their pallid counterparts. The same ANOVA test revealed that there was a significant main effect of vividness of product depiction on the degree of transportedness, $F(1, 385) = 38.78, p < .001, \eta^2 = .092$, with vivid ads triggering higher degree of transportedness than pallid ads ($M_{vivid} = 67.88, SD = 12.89, M_{pallid} = 59.77, SD = 11.67$). As such, H2 was supported. In addition, the interaction effect between vividness of product depiction and product category on transportation was not significant $F = (1,385) = .81, p = .37, \eta^2 = .002$. The interaction effect between narrative focus and vividness of product depiction on transportation was not significant either, $F(1,385) = .11, p = .74, \eta^2 = .00$.

To answer RQ3, product category did not influence the impact of narrative focus or the vividness of product depiction on the degree of transportedness $F(1,385) = .13, p = .72$. In other words, for ads of both music app and recorder pen, transportation was significantly influenced by narrative focus and the vividness of product depiction.

To address H3, H4 and RQ1, the researcher first centered the two continuous VVIQ2 score and NFC score so as to enhance the interpretability of their potential interaction effect and to eliminate the potential multicollinearity problems. This technique has been adopted by a number of previous researchers (e.g., Aiken & West, 1991; Judd & McClelland, 1989). The researcher centered the continuous VVIQ2 and NFC variables by subtracting the mean score from each data-point. In particular, the researcher used the "Compute" command in SPSS to create two new variables that were the original values minus the mean. As such, the researcher created the centered VVIQ2 score and the centered NFC score. Next, to create the interaction

term, the researcher used the “Compute” command to create a new variable which was the multiplication of the centered VVIQ2 and the centered NFC. Thirdly, the researcher performed a regression analysis, with the continuous transportation score as the dependent variable, and the centered VVIQ2 and the centered NFC being the independent variables in the first block. The newly created interaction variable was then added in the second block, and the product category variable was added in the third block. The Coefficients table suggested that transportation was significantly influenced by one’s mental imagery ability, $t = 3.636, \beta = .180, p < .001$, and by one’s need for cognition, $t = 2.784, \beta = .138, p = .006$. Moreover, the interaction effect between one’s mental imagery ability and one’s need for cognition was not significant, $t = 1.270, \beta = .063, p = .205$. In addition, product category did not have a significant main effect on transportation, $t = .179, \beta = .009, p = .858$. As such, H3 was supported. That is, transportation was influenced by one’s mental imagery ability, with high imagers being more transported than low imagers. To answer RQ1, need for cognition influenced the degree of transportedness, with individuals high in NFC being more transported than those low in NFC. To answer RQ2, there was no interaction effect between one’s mental imagery ability and one’s need for cognition on transportation.

Research hypotheses four, five, and six posited that transportation would positively influence the brand attitude, ad attitude and behavioral intention, with highly transported individuals showing more favorable affective and conative reactions than their less transported counterparts. To test these three hypotheses, the researcher strictly followed Green’s median split approach to treat the continuous transportation score and thus divided participants into high and low transportation groups (Green & Brock, 2000). The descriptive statistics indicated that

transportation was normally distributed, ranging from 27 to 95, with 64 as its median and a standard deviation of 12.95. As such, following the previous research (Green & Brock, 2000), those who scored from 27 to 63 were coded as the less transported, whereas those who scored from 65 to 95 were coded as highly transported and those who scored 64 were deleted from the dataset.

Next, a series of factorial ANOVA tests were performed to address the hypotheses. Regarding brand attitude, it was found that the interaction effect between product category and transportation level on brand attitude was not significant, $F(1,374) = .72, p = .398, \eta^2 = .002$. In addition, it was found that there was a main effect of transportation level on brand attitude, $F(1, 374) = 107.09, p < .001, \eta^2 = .22$, with more transported ad viewers holding statistically more favorable brand attitude than their less transported counterparts ($M_{\text{highly transported}} = 79.30, SD = 14.60, N = 194$, vs. $M_{\text{less transported}} = 60.62, SD = 19.32, N = 184$). As such, H4 was supported.

In addition, there was a main effect of product category on brand attitude, $F(1,374) = 5.77, p = .017, \eta^2 = .015$, with music app ads eliciting more favorable brand attitude than recorder pen ads ($M_{\text{music app}} = 71.81, SD = 18.76, N = 227$, vs. $M_{\text{recorder pen}} = 67.80, SD = 20.23, N = 151$). As such, to answer RQ3, the music app ads tend to elicit more favorable brand attitude than recorder pen ads.

Regarding ad attitude, another factorial ANOVA was performed with ad attitude as the continuous dependent variable, and product category and level of transportedness as two categorical independent variables. It was found that ad attitude was not influenced by product category, $F(1,374) = 2.71, p = .10, \eta^2 = .007$. The interaction effect between product category

and degree of transportedness was not significant either, $F(1, 374) = 3.18, p = .075, \eta^2 = .008$. Consistent with researcher's expectation, the degree of transportation influenced ad attitude significantly, $F(1, 374) = 139.57, p < .001, \eta^2 = .27$, with highly transported individuals showing more positive ad attitude than their less transported counterparts ($M_{\text{highly transported}} = 75.98, SD = 16.74, N = 194$, vs. $M_{\text{less transported}} = 52.78, SD = 22.87, N = 184$). As such, H5 was also supported. In addition, as aforementioned, product category did not have any significant main effect on ad attitude. Therefore, to answer RQ3, the transportation effect on ad attitude did not vary between recorder pen ads and music app ads.

Another factorial ANOVA test was performed to address H6, with behavioral intention as the continuous dependent variable, and product category and degree of transportation as the categorical independent variables. First, it was found that the interaction effect between product category and degree of transportation on behavioral intention was nonsignificant, $F(1, 374) = 1.33, p = .25, \eta^2 = .004$. In addition, it was found that behavioral intention was affected by degree of transportation significantly, $F(1, 374) = 91.96, p < .001, \eta^2 = .197$, with highly transported individuals showing stronger behavioral intention than their less transported counterparts, ($M_{\text{highly transported}} = 91.06, SD = 22.47, N = 194$, vs. $M_{\text{less transported}} = 65.26, SD = 27.91, N = 184$). As such, H6 was also supported.

In addition, it was found that there was a significant main effect of product category on behavioral intention, $F(1, 374) = 5.63, p = .018, \eta^2 = .015$, with music application eliciting stronger behavioral intention than recorder pen ads ($M_{\text{music app}} = 80.87, SD = 28.00, N = 227$, vs.

$M_{\text{recorder pen}} = 74.94$, $SD = 28.58$, $N = 151$). Therefore, to answer RQ3, music app ads tended to evoke stronger behavioral intention than recorder pen ads.

Mediational Analyses

To provide a further test with respect to the potential causal path between transportation and one's affective (brand attitude and ad attitude) and conative (behavioral intentions) reactions, the researcher conducted additional mediational analyses (Baron & Kenny, 1986) to investigate whether the direct effects of vividness of product depiction and narrative focus on one's affective and conative responses were reduced when transportation was included in the regression analysis. In all these analyses, transportation was treated as a continuous variable.

Before conducting the mediational analyses, the researcher first did a set of analyses to investigate the role of the product category on transportation effect. First, the researcher investigated whether there were significant relationships between narrative focus, vividness of product depiction, product category, and transportation. To verify these relationships, a factorial ANOVA was performed with the continuous transportation score as the dependent variable, product category, vividness of product depiction, and narrative focus as three categorical independent variables. It was found that there was a significant main effect of vividness of product depiction on transportation, $F(1,385) = 38.78$, $p < .001$, $\eta^2 = .092$. In addition, there was a significant main effect of narrative focus on transportation, $F(1,385) = 4.62$, $p = .032$, $\eta^2 = .012$. However, the degree of transportedness was not influenced by product category, $F(1,385) = .004$, $p = .95$, $\eta^2 = .00$. Therefore, based on above analyses, the significant relationship between product category and transportation was not established.

Next, another factorial ANOVA test was conducted to test the relationship between narrative focus, vividness of product depiction and one's affective and conative responses. It was found that narrative focus did not significantly influence one's brand attitude, $F(1,385) = 2.58, p = .11, \eta^2 = .007$, or one's ad attitude $F(1,385) = 3.43, p = .065, \eta^2 = .009$, or one's behavioral intention, $F(1,385) = .001, p = .97, \eta^2 = .00$. Based on the above analyses, the significant relationships between narrative focus and one's affective (brand attitude and ad attitude) and conative (behavioral intention) responses were not established. As such, the message factor of narrative focus was ruled out in the following mediational analyses.

In addition, regarding the vividness of product depiction, it was found that this message factor significantly influenced one's brand attitude, $F(1,385) = 24.54, p < .001, \eta^2 = .060$, one's ad attitude $F(1,389) = 23.80, p < .001, \eta^2 = .058$, and one's behavioral intention, $F(1,385) = 21.43, p < .001, \eta^2 = .053$. Hence, the following mediational analyses were performed to solely test the potentially mediating influence of transportation on the effect of vividness of product depiction on one's affective and conative responses.

In particular, with respect to the message factor of vividness of product depiction on brand attitude, four relationships should be established to confirm the causal relationship between transportation and brand attitude. First, there should be a significant relationship between transportation and vividness of product depiction, $F(1, 391) = 42.56, \beta = .313, t = 6.52, p < .001$. Second, there should be a significant relationship between transportation and brand attitude, $F(1,391) = 157.84, \beta = .536, t = 12.56, p < .001$. Third, there should be a significant relationship between vividness of product depiction and brand attitude, $F(1,391) = 28.535, t =$

5.34 , $\beta = .26$, $p < .001$. Fourth, when transportation was included in the regression model together with vividness of product depiction, $F(1,390) = 82.437$, $p < .001$, the relationship between vividness of product depiction and brand attitude was reduced $t = 2.30$, $\beta = .103$, $p = .022$, whereas the relationship between transportation and brand attitude remained significant $t = 11.275$, $\beta = .504$, $p < .001$. As such, transportation worked as a partial mediator between vividness of product depiction and brand attitude.

Analogously, regarding the vividness of product depiction on ad attitude, four relationships should be established to confirm the causal relationship between transportation and ad attitude. First, there should be a significant relationship between transportation and vividness of product depiction, $F(1, 391) = 42.56$, $\beta = .313$, $t = 6.52$, $p < .001$. Second, there should be a significant relationship between transportation and ad attitude, $F(1,391) = 250.094$, $t = 15.81$, $\beta = .625$, $p < .001$. Third, there should be a significant relationship between vividness of product depiction and ad attitude, $F(1,391) = 24.41$, $t = 4.94$, $\beta = .242$, $p < .001$. Fourth, when transportation was included in the regression model together with vividness of product depiction, $F(1,390) = 126.002$, $p < .001$, it was found that the relationship between vividness of product depiction and ad attitude was not only reduced but also became nonsignificant $t = 1.247$, $\beta = .052$, $p = .213$, whereas the relationship between transportation and ad attitude remained significant $t = 14.638$, $\beta = .608$, $p < .001$. As such, transportation worked as a mediator between vividness of product depiction and ad attitude.

Finally, regarding the effect of vividness of product depiction on behavioral intention, four relationships should be established to confirm the causal relationship between transportation

and behavioral intention. First, there should be a significant relationship between transportation and vividness of product depiction, $F(1, 391) = 42.56, \beta = .313, t = 6.52, p < .001$. Second, there should be a significant relationship between transportation and behavioral intention, $F(1, 391) = 120.361, t = 10.971, \beta = .485, p < .001$. Third, there should be a significant relationship between vividness of product depiction and behavioral intention, $F(1, 391) = 26.318, t = 5.13, \beta = .251, p < .001$. Fourth, when transportation was included in the regression model together with vividness of product depiction, $F(1, 390) = 63.713, p < .001$, it was found that the relationship between vividness of product depiction and behavioral intention was reduced $t = 2.374, \beta = .110, p = .018$, whereas the relationship between behavioral intention and transportation remained significant $t = 9.736, \beta = .451, p < .001$. As such, transportation worked as a partial mediator between vividness of product depiction and one's behavioral intention.

CHAPTER 5

DISCUSSION

The current study constituted the researcher's first attempt to explore the Transportation-Imagery Model in narrative advertising. The study generated a number of intriguing findings, some of which warrant further discussion.

The most remarkable contribution of this study is that it empirically identified several promising moderators of transportation. Before this study, we had possessed very limited knowledge regarding the exact moderators of transportation.

Previous research only suggested that the vividness of product description and one's mental imagery ability both influenced fluency of mental imagery generation (Petrova & Cialdini, 2005). As mental imagery constitutes the key component in Transportation-Imagery Model (Green, 1996), the researcher therefore deduced that the degree of transportation was also likely to be affected by these two factors. In effect, the current study successfully confirmed the above hypothesis. To further scrutinize the relative weights (as indicated by the standardized beta coefficients in the regression model) of these two factors on transportation, the researcher then performed a regression analysis with the continuous transportation score as the dependent variable, and vividness of product depiction (vivid vs. pallid) and one's mental imagery ability (treated as a continuous variable) as two independent variables. It was found that when both factors were included in the regression model, the vividness of product depiction had a bigger influence on transportation than one's mental imagery ability (standardized $\beta_{\text{vividness}} = .297, p < .001$, standardized $\beta_{\text{mental imagery ability}} = .184, p < .001$). Such findings helped attest to the fact

that the message factor of vividness of product depiction affected transportation to a greater degree than one's dispositional ability to generate vivid mental imagery. From the perspective of advertising practitioners, this finding appeared to suggest that whereas advertisers cannot control the dispositional mental imagery ability of their audience, they should certainly focus on enhancing the inherent vividness of the advertising message to elicit greater degree of transportedness.

Noteworthy also is the fact that the current study is the first one that empirically confirmed the impact of individual differences in terms of vividness of mental imagery ability on the degree of transportedness upon exposure to the print version of narrative messages. Such findings failed to be validated by Green and her colleagues (Green et al., 2008). They posited that the lack of statistical significance was probably due to the fact that in their study, participants obtained generally high marks on the Paivio's Individual Differences Questionnaire (Paivio, 1971). The current study, by adopting Marks'VVIQ2 (Vividness of Visual Imagery Questionnaire), seemed to be able to more effectively distinguish one's mental imagery ability. In particular, the VVIQ2 score among ad viewers was normally distributed, ranging from 41 to 160, with 120 as its median. As such, it would seem appropriate to say that VVIQ2 was likely to be a more sensitive instrument to gauge individuals' difference in mental imagery generation than the PIDQ (Paivio, 1971).

Moreover, besides vividness of product depiction and one's mental imagery ability, the current study also revealed that the message factor of narrative focus tends to influence transportation significantly. In particular, regardless of product category, the study indicated that

ads featuring the process of product consumption were more transporting than those featuring the outcome of product usage. On the other hand, despite the significant findings, the study indicated that narrative focus only explained 1% of the variance in transportation. This might be arguably due to the nature of print medium, because electronic media such as television and radio seem to be more capable of manipulating ad viewers' thought focus compared with print media such as magazine and newspaper. Since this speculation calls for further elucidation, the researcher intends to perform a series of follow-up studies to systematically investigate the role of narrative focus in transportation across other forms of advertising media.

Furthermore, it is crucial to note that the current study constitutes the first of its kind that investigated the impact of need for cognition on transportation in the advertising domain. Presumably due to Green's early finding that NFC did not influence transportation in narrative persuasion, the subsequent studies (Escalas, 2004; Chang, 2009) that have empirically explored transportation in an advertising setting seem to have largely ignored the NFC, which however is a key factor in rhetorical persuasion and plays a pivotal role in the ELM. In fact, the findings generated in the current study were in agreement with Green and her colleagues' most recent study (Green et al., 2008) that high NFC individuals were more transported than their low NFC counterparts in response to print narrative messages.

Intriguing as such findings may seem, this study solely focused on the print medium and thus has yet to touch upon other advertising media. Green and her colleagues (2008) nonetheless suggested that NFC tended to influence transportation across modality. In particular, they found that high NFC individuals were more transported while reading the narrative story, whereas low

NFC individuals were more transported while watching the narrative story. According to Green and her colleagues (2008), a greater degree of transportedness is likely to be evoked upon one's exposure to a medium that matches his or her preferred level of cognitive effort (as gauged by NFC score) compared with a medium that entails either more or less cognitive effort than one prefers. In the same study, it was found that high NFC message recipients were more transported into print medium, which is generally assumed to be a more difficult medium than film, which may entail lower degree of mental effort. This finding appears to bear practical significance, because it suggests that when it comes to being transported into the narrative world, different communication media (for example, print vs. film) should be used selectively so as to match the preferred cognitive effort required by the high versus low NFC individuals. Moreover, this finding also suggests that it may not be particularly effective to resort to electronic media to convey transporting persuasive messages among high NFC individuals. Analogously, the reverse argument seems to hold true. In particular, print media may not serve as the ideal channels to disseminate transporting narrative messages among low NFC individuals, who tend to be more transported by exposure to a medium that requires relatively less cognitive effort. Promising as these speculations appear to be, none of the previous studies have yet to empirically verify them in a narrative advertising context. To help address this information void, the researcher will continue her investigation of the impact of NFC on transportation across other advertising media (television, radio, etc) in her follow-up studies.

Most importantly, this study reveals that regardless of the product category, transportation seems to positively influence one's affective (ad attitude and brand attitude) and

conative (behavioral intention) responses. Nonetheless, pertaining to the mediational influence of transportation on one's affective and conative responses, the current study fails to delineate a conclusive picture. Specifically, it was found that transportation constitutes the mediator between the vividness of product depiction and one's ad attitude, but only worked as a partial mediator between vividness of product depiction and brand attitude and behavioral intention.

To summarize, the current study not only shed new insights into the nature of transportation but also advanced and enriched our knowledge of the intricate mechanism whereby transportation influences narrative persuasion in an advertising context. Specifically, the study presents certain means by which we can enhance the degree of transportedness. In particular, when the narrative ads feature the process of product usage and vivid product depiction, the transportation effect is more likely to be elicited. In addition, two dispositional factors, that is, one's mental imagery ability and need for cognition, also seem to influence the degree of transportedness at one's exposure to print narrative advertising. Furthermore, whether transportation plays the full or partial mediating role in narrative persuasion, the positive relationships between the degree of transportedness and one's affective and conative responses were re-confirmed in the current study. In effect, such relationship has been consistently validated by a series of studies over the past decade (Green, 1996, Green & Brock, 2000; Escalas, 2004; Green et al., 2008). Based on these findings, we are in a good position to conclude that transportation theory tends to be remarkably potent in construing and predicting narrative-based belief change. Meanwhile, we should be equally aware of the fact that transportation theory is still in its early stage of development and far from conclusive or definite. The theory has not

presented a clear schema elucidating the relationship among the three components of transportation (mental imagery, cognitive attention and emotional involvement), nor has it explicated the moderators of the three components respectively. Akin to any persuasion theories, transportation theory would entail sufficient time and persistent scholarly efforts over several decades to develop and perfect itself before it can become a relatively mature and comprehensive persuasion model.

The implications of the research findings are essentially twofold. Theoretically, the current study appears to make unique contributions to the formulation and application of the transportation model and advance persuasion theory building in advertising. First, this study pinpoints four promising moderators (narrative focus, vividness of product depiction, mental imagery ability and need for cognition) of transportation, and thus delineates a more complete and systematic Transportation-Imagery Model. Secondly, this study expands the application of transportation theory to the domain of narrative advertising, where a very limited number of studies have been conducted so far. Even Melanie Green, who proposed transportation theory and extensively examined the transportation effect in health communication, has never explored such effect in the advertising domain. Moreover, the findings bear practical significance. The study suggests that advertisers can enhance transporting effect of their narrative advertising as well as elicit favorable affective and conative responses in ad viewers by portraying vivid product depiction and featuring product usage process.

Notwithstanding its theoretical and practical bearings, the current study has certain limitations. First, only ads on print medium were examined to gauge transportation effect. It is

generally assumed however that print medium tends to be least transporting, notably compared with electronic media such as television, as the latter can adroitly marry acoustic and visual stimuli seamlessly so as to more readily evoke transportation. Second, the study merely investigated two product categories, and thus can not sufficiently conclude whether transportation effect is influenced by product category. As such, future research needs to more explicitly construe the impact of product category on narrative transportation by conducting advertising studies featuring an array of product categories. The third limitation of the study lies in its exclusive usage of student sample to examine the transportation effect, notwithstanding students constitute the target audience of both the recorder pen and the music application. To enhance the generalizability of the research findings, future studies should also use non-student samples.

The present study merely constitutes the initial step of the researcher's long-term research agenda to refine the Transportation-Imagery Model in an advertising context. To achieve this goal, the research has set up a research agenda that consists of a series of follow-up studies. First, as aforementioned, the researcher will investigate transportation effect across modality (print, television, and radio) and in various product categories so as to provide a more definite conclusion regarding narrative focus and NFC. Second, the researcher will explicate the moderators of the three components in the transportation model. Such knowledge will allow us to lay out more clear-cut means of maximizing transportation effect. Third, to triangulate the results in terms of degree of transportedness, the researcher will resort to psychophysiological measures, such as skin conductance and heart rate, in addition to Green's paper-and-pencil

transportation scale. Based on these studies, the researcher seeks to complete the theory construction for the Transportation-Imagery Model in the next three to five years. The ultimate goal of the researcher is to be able to integrate the Transportation-Imagery Model with the ELM so as to come up with a comprehensive persuasion model applicable to both narrative and rhetorical persuasions.

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Appendix A

Vividness of Visual Imagery Questionnaire (VVIQ2) & Reading Instructions

For your first task, you will be asked to imagine some scenarios. Before you start, please spend two minutes familiarizing yourself with the different rating categories on the scale below. Throughout this task, refer to the rating scale when judging the vividness of each image. Try to do each item separately, independent of how you may have done other items.

Rating Scale

The image aroused by an item might be:

Rating 5: Perfectly clear and as vivid as normal vision

Rating 4: Clear and reasonably vivid

Rating 3: Moderately clear and vivid

Rating 2: Vague and dim

Rating 1: No image at all, you only “know” that you are thinking of an object.

Complete each of the following 32 items for images obtained with the eyes closed.

In answering items 1 to 4, think of a friend whom you frequently see (but who is not with you at present) and consider carefully the picture that comes to mind. For each item, close your eyes for 5-10 seconds to focus on the image in your mind before rating the image.

1. With your eyes closed, think of the exact contour of the face, head, shoulders and body of your friend.
2. Now, with your eyes closed, think of your friend’s poses of head, and body postures.
3. With your eyes closed, now think of your friend’s walking pace and the length of step in walking.
4. And now with your eyes closed, think of your friend wearing some familiar clothes in different colors.

For items 5 to 8, think of the sunrise. Consider carefully the picture that comes to mind. For each item, close your eyes for 5-10 seconds to focus on the image in your mind before rating the image.

5. With your eyes closed, think of the sun rising above the horizon into a hazy sky.
6. With your eyes closed, now think of the sky clearing and surrounding the sun with blueness.
7. With your eyes closed, now think of clouds. Then a storm blows in, with flashes of lightning.
8. And now with your eyes closed, imagine a rainbow appears.

For items 9 to 12, think of the front of a store which you often go to. Consider the picture that comes to mind. For each item, close your eyes for 5-10 seconds to focus on the image in your mind before rating the image.

9. With your eyes closed, think of the overall appearance of the store from the opposite side of the road.
10. Now with your eyes closed, imagine a window display including colors, shape, and details of individual items for sale.
11. With your eyes closed, now imagine that you are near the entrance. Think of the color, shape and details of the door.
12. And now with your eyes closed, imagine that you enter the store and go to the counter. The clerk helps you. Money changes hands.

For items 13 to 16, think of a country scene which involves trees, mountains and a lake. Consider the picture that comes to mind. For each item, close your eyes for 5-10 seconds to focus on the image in your mind before rating the image.

13. With your eyes closed, think of the contours of the landscape.
14. Now with your eyes closed, think of the color and shape of the trees.
15. With your eyes closed, now think of the color and the shape of the lake.
16. And now with your eyes closed, think of a strong wind that blows on the trees and on the lake causing waves.

For items 17 to 20, think of being driven in a fast-moving automobile by a friend along a major highway. Consider the picture that comes to mind. For each item, close your eyes for 5-10 seconds to focus on the image in your mind before rating the image.

17. With your eyes closed, imagine you observe the heavy traffic travelling at high speed around your car. Think of the overall appearance of vehicles, their colors, sizes and shapes.
18. Now with your eyes closed, imagine your car accelerates to overtake the traffic directly in front of you. You see an urgent expression on the face of your friend and the people in the other vehicles as you pass.
19. With your eyes closed, now imagine a large truck is flashing its headlights directly behind. Your car quickly moves over to let the truck pass. The driver signals with a friendly wave.
20. And now with your eyes closed, imagine you see a broken-down vehicle beside the road. Its lights are flashing. The driver is looking concerned and she is using a cell phone.

For items 21 to 24, think of a beach by the ocean on a warm summer's day. Consider the picture that comes to mind. For each item, close your eyes for 5-10 seconds to focus on the image in your mind before rating the image.

21. With your eyes closed, think of the overall appearance and the color of the water, surf and sky.
22. Now with your eyes closed, imagine bathers are swimming and splashing about in the water. Some are playing with a brightly colored beach ball.
23. With your eyes closed, now imagine an ocean liner crosses the horizon. It leaves a trail of smoke in the blue sky.
24. And now with your eyes closed, imagine a beautiful hot air balloon appears with four people aboard. The balloon drifts past you, almost directly overhead. The passengers wave and smile. You wave and smile back at them.

For items 25 to 28, think of a railway station. Consider the picture that comes to mind. For each item, close your eyes for 5-10 seconds to focus on the image in your mind before rating the image.

25. With your eyes closed, think of the overall appearance of the station viewed from in front of the main entrance.
26. Now with your eyes closed, imagine that you walk into the station. Think of the color, shape, and details of the entrance hall.
27. With your eyes closed, now imagine you approach the ticket office, go to a vacant counter and purchase your ticket.
28. And now with your eyes closed, imagine you walk to the platform and observe other passengers and railway tracks. A train arrives. You climb aboard.

For items 29 to 32, think of a garden with lawns, bushes, flowers, and shrubs. Consider the picture that comes to mind. For each item, close your eyes for 5-10 seconds to focus on the image in your mind before rating the image.

29. With your eyes closed, think of the overall appearance and the design of the garden.
30. Now with your eyes closed, think of the color and shape of the bushes and shrubs.
31. With your eyes closed, now think of the color and appearance of the flowers.
32. And now with your eyes closed, think of some birds flying down onto the lawn and starting to peck the food.

Appendix B
Need for Cognition Scale & Instructions
(Cacioppo, Petty, & Kao, 1984)

Next, for each of the statements below, please indicate whether or not the statement is characteristic of you or of what you believe. If the statement is extremely uncharacteristic of you or of what you believe (not at all like you), please check "1". If the statement is extremely characteristic of you or of what you believe (very much like you), please check "5".

The scale asks participants to describe the extent to which they agree with each statement using a 5-point scale with the following values:

- 1. Extremely unlike me
- 2. Somewhat unlike me
- 3. Uncertain
- 4. Somewhat like me
- 5. Extremely like me

- 1. I would prefer complex to simple problems.
- 2. I like to have the responsibility of handling a situation that requires a lot of thinking.
- 3. Thinking is not my idea of fun. *
- 4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities. *
- 5. I try to anticipate and avoid situations where there is likely chance I will have to think in depth about something. *
- 6. I find satisfaction in deliberating hard and for long hours.
- 7. I only think as hard as I have to. *
- 8. I prefer to think about small, daily projects to long-term ones. *
- 9. I like tasks that require little thought to make my way to the top appeals to me.*
- 11.I really enjoy a task that involves coming up with new solutions to problems.
- 12. Learning new ways to think doesn't excite me very much. *
- 13. I prefer my life to be filled with puzzles that I must solve.
- 14. The notion of thinking abstractly is appealing to me.
- 15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
- 16. I feel relief rather than satisfaction after completing a task that required a lot of mental work.*
- 17. It's enough for me that something gets the job done; I don't care how or why it works. *
- 18. I usually end up deliberating about issues even when they do not affect me personally.

* Reverse scoring is used on this item.

Appendix C

Advertising Processing Instructions

For recorder pen ads (version 1 and version 2) that feature vivid or pallid product depiction with focus on the process of the product consumption. The following reading instructions were used.

Next, you will read a print ad of a recorder pen. While you are reading this ad, we would like you to focus on the process of using the recorder pen, that is, focus on the easy steps of using the recorder pen.

For recorder pen ads that feature vivid or pallid product depiction with focus on the outcome of the product consumption. The following reading instructions were used.

Next, you will read a print ad of a recorder pen. While you are reading this ad, we would like you to focus on the outcome of using the recorder pen, that is, focus on the benefits that you would gain from using the recorder pen.

For music app ads that feature vivid or pallid product depiction with focus on the process of the product consumption.

Next, you will read a print ad of a music application. While you are reading this ad, we would like you to focus on the process of using the music app, that is, focus on the easy steps of using the music app.

For music app ads that feature vivid or pallid product depiction with focus on the outcome of the product consumption.

Next, you will read a print ad of a music application. While you are reading this ad, we would like you to focus on the outcome of using the music application, that is, focus on the benefits that you would gain from using the music application.

Appendix D

Recorder Pen Ad Version 1 (Vivid Product Depiction & Process-Focused Copy)



This pen is mightier than the sword.

Picture this. It's me versus the captain of the football team, and we're going after the same girl. He tries to impress her with his bulging muscles, and me? I'm an average guy, but I'm smart. So I get the Vernad Recorder Pen. Why? Because I know a thing or two about our lovely lady. She's a 10, but she wants a 4.0. And I want her.

Not only did this pen catch her attention with its sleek lines, she loved how easy it was to use. All you have to do is click a button to record the lecture into the memory of the pen. At the end of the day, just download the audio files to the computer, where they automatically convert to a Word doc. Plus, with great features like 300 hours of recording times and 4 Gigs of memory, she simply couldn't resist getting one of her own. Now, after class, we "bump" our pens together, and they automatically exchange files. Plus, the clarity is so good, she can hear me whispering messages to her asking her out on dates when we exchange files.

This pen may not look like much, but it got me the girl, and the girl got her 4.0. And hulking biceps over there? He's still writing with a No. 2. Oh, and the Vernad Recorder Pen helped my GPA as well. I even aced the final. So, yeah, this pen is definitely mightier than the sword.

VernadTechnologies.com

DISCLAIMER: Recorder Pen has 4Gb of storage. Supports WINDOWS98/98SE/ME/2000/XP/MAC OS / LINUX operating systems. USB2.0 standard interface. Ability to share files from other Recorder Pens occurs by simply pairing pens together and hitting the send/receive button. Built-in microphone range = 15 square meters. Six complimentary high-capacity lithium batteries.

Recorder Pen Ad Version 2 (Pallid Product Depiction & Process-Focused Ad Copy)



This pen is mightier than the sword.

Picture this. It's me versus the captain of the football team, and we're going after the same girl. He keeps trying to impress her, but I have the Vernad Recorder Pen. Why? She wants a 4.0, and I want her.

Not only did this sleek pen catch her attention, but she loved how easy it was to use. All you have to do is click a button to record the lecture into the memory of the pen. At the end of the day, just download the audio files to the computer to convert them to a document. Plus, with features like 300 hours of recording times and 4 Gigs of memory, she decided to get one of her own. Now, after class, we put the two pens together, and they automatically exchange files. The pen records with perfect clarity as well.

This pen may not look like much, but it got me the girl, and the girl got her 4.0. And our football captain over there? He's still writing with a pencil. The Vernad Recorder Pen helped improve my GPA as well. So this pen is definitely mightier than the sword.

 VernadTechnologies.com

DISCLAIMER: Recorder Pen has 4Gb of storage. Supports WINDOWS98/98SE/ME/2000/XP/MAC OS / LINUX operating systems. USB2.0 standard interface. Ability to share files from other Recorder Pens occurs by simply pairing pens together and hitting the send/receive button. Built-in microphone range = 15 square meters. Six complimentary high-capacity lithium batteries.

Recorder Pen Ad Version 3 (Vivid Product Depiction & Outcome-Focused Ad Copy)



This pen is mightier than the sword.

Picture this. It's me versus the captain of the football team, and we're going after the same girl. He tries to impress her with his bulging muscles, and me? I'm an average guy, but I'm smart. So I get the Vernad Recorder Pen. Why? Because I know a thing or two about our lovely lady. She's a 10, but she wants a 4.0. And I want her.

Not only did this pen catch her attention with its sleek lines, she loved how easy it was to use. At the end of the day, I always have all the recorded lectures saved as audio files on my computer. With great features like 4 Gigs of memory, I can record up to 300 hours of lectures. That's more than enough room to get all the notes I need to get an A. These cool features made it hard for her to resist getting one of her own. So, now, after class, all we have to do is "bump" our pens together, and they automatically exchange files. With the recorder pen, our notes are automatically converted to a Word doc, and I don't have to be embarrassed about showing her my chicken scratch, which makes our "study session" go really well...if you know what I mean. Plus, the clarity is so good, she heard my whispered messages asking her out. Now, we are dating.

This pen may not look like much, but it got me the girl, and the girl got her 4.0. And hulking biceps over there? He's still writing with a No. 2. Oh, and the Vernad Recorder Pen helped my GPA as well. I even aced the final. So, yeah, this pen is definitely mightier than the sword.

 VernadTechnologies.com

DISCLAIMER: Recorder Pen has 4Gb of storage. Supports WINDOWS98/98SE/ME/2000/XP/MAC OS / LINUX operating systems. USB2.0 standard interface. Ability to share files from other Recorder Pens occurs by simply pairing pens together and hitting the send/receive button. Built-in microphone range = 15 square meters. Six complimentary high-capacity lithium batteries.

Recorder Pen Ad Version 4 (Vivid Product Depiction & Outcome-Focused Ad Copy)



This pen is mightier than the sword.

Picture this. It's me versus the captain of the football team, and we're going after the same girl. He keeps trying to impress her, but I have the Vernad Recorder Pen. Why? She wants a 4.0, and I want her.

Not only did this sleek pen catch her attention, she loved how easy it was to use. At the end of the day, I have all the lectures saved on my computer. With features like 4 Gigs of memory, I can record up to 300 hours of lectures. That's more than enough room to get all the notes I need to make an A. These features convinced her to get a Vernad Recorder Pen of her own. So, now, after class, all we have to do is put our pens together, and they automatically exchange files. With the recorder pen, our notes automatically convert to a document, and I don't have to show her my bad handwriting. Plus, the clarity of the pen is better than any of its rivals.

This pen may not look like much, but it got me the girl, and the girl got her 4.0. And our football captain over there? He's still writing with a pencil. The Vernad Recorder Pen helped improve my GPA as well. So this pen is definitely mightier than the sword.

 VernadTechnologies.com

DISCLAIMER: Recorder Pen has 4Gb of storage. Supports WINDOWS98/98SE/ME/2000/XP/MAC OS / LINUX operating systems. USB2.0 standard interface. Ability to share files from other Recorder Pens occurs by simply pairing pens together and hitting the send/receive button. Built-in microphone range = 15 square meters. Six complimentary high-capacity lithium batteries.

Appendix E

Music App Ad Version 1(Vivid Product Depiction & Process-Focused Copy)

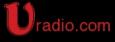


This isn't your grandmother's radio.

I was desperately looking for a online radio station that didn't play the same music over and over again. I have very eclectic tastes in music... I like Weezer, but I love Kings of Leon. I like Wolfmother, but love Gov't Mule. I like REO, but love Michael Jackson.... Crap. Please don't tell my girlfriend about that. It's only the early Michael Jackson... really. You know, the stuff before his fifth nose job.

Anyways... I was really tired of listening to the same old songs from Pandora. Did you know that Pandora only has 700,000 songs? Yeah, I didn't either. Online music shouldn't be about what others want you to hear, it should be about what you love and what you want to hear right now. So that's when my girlfriend recommended URadio. Here is how URadio works: I can easily populate endless playlists by querying the 5 million songs in URadio and customize my playlists using the genre and release date filters. Plus, I can listen to my music anywhere, anytime, by dropping my playlist onto a Micro SD card with URadio's Cache and Carry™ feature. I can even download the music to my cell phone. Just click and I'm done. And my favorite part? All I had to pay was a one-time fee of \$29.99, and after that, all the songs are free. You know how you can get a lyric in your head, but can't remember the rest of the song? I don't know about you, but that drives me crazy. Well, with URadio, I can simply IM them the lyric and in a few seconds I'll know what the song it is.

Some Internet radio gives you what they want. But with URadio... It's all about you. I can listen to what I want when I want it. After all, this isn't your grandmother's radio... it's URadio. Seriously though, don't tell my girlfriend about the Michael Jackson thing.

 uradio.com

Disclaimer: 1Pandora = 700,000 songs as of 11/25/09. 2Audio specs available upon request or viewable at www.uradio.com/audiospecs.
™Cache and Carry a trademark of uRadio, Inc.

Music App Ad Version 2 (Pallid product depiction & Process-Focused Ad Copy)



This isn't your grandmother's radio.

I was looking for an online radio station that didn't play the same music repeatedly. I like different types of music... I like Weezer, but I love Kings of Leon. I like Wolfmother, but love Gov't Mule. I like REO, but love Michael Jackson.... Please don't tell my girlfriend about that. It's only the early Michael Jackson.

I was tired of listening to the same songs from Pandora, which only has 700,000 songs. Online music shouldn't be about what others want you to hear, it should be about what you want to hear. So that's when my girlfriend recommended URadio. This is how URadio works: I can build playlists out of the 5 million songs in U Radio and organize them by genre and release date. Plus, I can listen to my music anywhere, anytime, by dropping my playlist onto a Micro SD card with URadio's Cache and Carry™ feature, I can download the music to my cell phone as well. Just click and I am done. I only paid a one-time fee of \$29.99, and after that, all the songs are free. With URadio, when I can't recall the name of a song, I can search the song by its lyric and find it really fast by using the IMLyric™ feature.

Some Internet radio gives you what they want. But with URadio... It's all about you. I can listen to what I want when I want it. After all, this isn't your grandmother's radio... it's URadio. Please don't tell my girlfriend about the Michael Jackson thing.

URadio.com

Disclaimer: 1Pandora = 700,000 songs as of 11/25/09. 2Audio specs available upon request or viewable at www.URadio.com/audiospecs.
™Cache and Carry a trademark of uRadio, Inc.

Music App Ad Version 3 (Vivid Product Depiction & Outcome-Focused Ad Copy)



This isn't your grandmother's radio.

I was desperately looking for an online radio station that didn't play the same music over and over again. I have very eclectic tastes in music... I like Weezer, but I love Kings of Leon. I like Wolfmother, but love Gov't Mule. I like REO, but love Michael Jackson.... Crap. Please don't tell my girlfriend about that. It's only the early Michael Jackson... really. You know, the stuff before his fifth nose job.

Anyways... I was really tired of listening to the same old songs from Pandora. Did you know that Pandora only has 700,000 songs? Yeah, I didn't either. Online music shouldn't be about what others want you to hear, it should be about what you love and what you want to hear right now. So that's when my girlfriend recommended URadio. URadio offers a lot of exclusive features. With customizable playlists that can be arranged by both genre and release date, and more than 5 million songs, for example, URadio seriously puts competition to shame. With the trademarked Cache and Carry™ feature, I can listen to my music anywhere, anytime. Cache and Carry™ lets me take the music with me on a Micro SD card or even as a ringtone on my cell phone. And my favorite part? I can actually afford it. All I had to pay was a one-time fee of \$29.99, and after that, all the songs are free. You know how you can get a lyric in your head, but can't remember the rest of the song? I don't know about you, but that drives me crazy. Well, with URadio, the IMLyric™ feature can tell you the name of the song in just a few seconds. And then you can get the song out of your head.

Some Internet radio gives you what they want. But with URadio... It's all about you. I can listen to what I want when I want it. After all, this isn't your grandmother's radio... it's URadio. Seriously though, don't tell my girlfriend about the Michael Jackson thing.

URadio.com

Disclaimer: 1Pandora = 700,000 songs as of 11/25/09. 2Audio specs available upon request or viewable at www.URadio.com/audiospecs.
™Cache and Carry a trademark of uRadio, Inc.

Music App Ad Version 4 (Pallid Product Depiction & Outcome-Focused Ad Copy)



This isn't your grandmother's radio.

I was looking for an online radio station that didn't play the same music repeatedly. I like different types of music... I like Weezer, but I love Kings of Leon. I like Wolfmother, but love Gov't Mule. I like REO, but love Michael Jackson.... Please don't tell my girlfriend about that. It's only the early Michael Jackson.

I was tired of listening to the same songs from Pandora, which only has 700,000 songs. Online music shouldn't be about what others want you to hear, it should be about what you want to hear. So that's when my girlfriend recommended URadio. Here are some of the exclusive features that URadio offers: URadio surpasses its completion with 5 million songs and customizable playlists by both genre and release date. The trademarked Cache and Carry™ feature makes music accessible anywhere, anytime. This feature lets me take the music with me on a Micro SD card or even as a ringtone on my cell phone. I only paid a one-time fee of \$29.99, and after that, all the songs are free. The IMLyric™ feature of URadio can find a song by its lyric really fast when I can't recall the name of the song.

Some Internet radio gives you what they want. But with URadio... It's all about you. I can listen to what I want when I want it. After all, this isn't your grandmother's radio... it's URadio. Please don't tell my girlfriend about the Michael Jackson thing.

Uradio.com

Disclaimer: 1Pandora = 700,000 songs as of 11/25/09. 2Audio specs available upon request or viewable at www.uRadio.com/audiospecs.
™Cache and Carry a trademark of uRadio, Inc.

Appendix F
Transportation Scale
(Green & Brock, 2000)

I: General Items

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

II. Items germane to the recorder pen ad:

12. While reading the ad I had a vivid image of the guy.
13. While reading the ad I had a vivid image of the captain of the football team.
14. While reading the ad, I had a vivid image of the guy's girlfriend.
15. While reading the ad, I had a vivid image of the recorder pen.

III. Items germane to the music app ad:

12. While reading the ad, I had a vivid image of the guy enjoying the music app.
13. While reading the ad, I had a vivid image of the scenes described in the ad.
14. While reading the ad, I had a vivid image of the music app.
15. While reading the ad, I had a vivid image of the guy listening to songs on the music app.

Note: All items were measured on a seven-point scale anchored by *very much* and *not at all*.

Appendix G

Manipulation Questions of the Narrative Focus

On a continuous scale ranging from 0 (not at all) to 100 (very much), please rate your degree of agreement with the following statements about this ad. Feel free to move the cursor to any number that best reflects your degree of agreement. For example, if you are 25% in agreement with the statement, you need to move the cursor to number 25. Similarly, if you are 65% in agreement with the statement, please move the cursor to number 65. If you feel confused about the scale, please raise your hands and ask the experimenter.

1. While reading the ad, how much did you think about how the product works?
2. While reading the ad, how much did you think about the process of using the product?
3. While reading the ad, how much did you think about the step of using the product?
4. While reading the ad, how much did you think about the outcome of using the product?
5. While reading the ad, how much did you think about the benefits you would gain from using the product?
6. While reading the ad, how much did you think about the end results of using the product?

Note: The generic word “product” was changed to “recorder pen” or “music app” in the recorder pen ads or the music app ads respectively.

Appendix H

Manipulation Questions of the Vividness of Product Depiction

On a continuous scale ranging from 0 (not at all) to 100 (very much), please rate your degree of agreement with the following statements about this ad. Feel free to move the cursor to any number that best reflects your degree of agreement. For example, if you are 25% in agreement with the statement, you need to move the cursor to number 25. Similarly, if you are 65% in agreement with the statement, please move the cursor to number 65. If you feel confused about the scale, please raise your hands and ask the experimenter.

1. How vivid was the description of this ad?
2. How imagery-provoking was the ad?
3. Do you think the description of the product is specific?
4. Do you think the description of the product is detailed?
5. How likely is the ad to elicit your imaginability?
6. How likely is the ad to evoke your sensory imagery?

Note: The generic word “product” was changed to “recorder pen” or “music app” in the recorder pen ads or the music app ads respectively.

Appendix I

Dependent Measures of Brand Attitude

1. How do you like the product?
2. After reading the ad, do you hold favorable attitudes towards the product?
3. After reading the ad, do you hold positive attitudes towards the product?
4. After reading the ad, do you think the product is good?

Dependent Measure of Ad Attitude

1. How do you like the ad?
2. Do you have positive attitudes towards the ad?
3. Do you have favorable attitudes toward the ad?

Dependent Measure of Purchase Intention

(Escalas & Luce, 2003)

1. How likely would you use a free trial of this product for 30 days?
2. How likely would you buy the product given that you plan to buy such a product and have the necessary money?
3. How likely would you request additional information of the product?
4. How likely would you buy this product?

Note: The generic word “product” was replaced by “recorder pen” or “music app” in the recorder pen ads or the music app ads respectively.