

THE MEDIA SEQUENCE EFFECT ON NARRATIVE ADVERTISING

By

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To my family, the source of my inspiration and energy

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Abstract of Thesis Presented to the Graduate School  
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The current study investigates the media sequence effect on the effectiveness of narrative advertising. In particular, the current study tries to answer the question that which sequence of the combination of print and video could make narrative advertising the most effective. Ninety Chinese College students with the average age of 20 participated in a two-stage experiment, in which they read or watched a narrative advertisement in both stages. Advertising presenting sequence was manipulated, resulting in four media sequences: print-video, video-print, print-print, and video-video. Subjects' transportation scores, attitude towards the ad, attitude towards the brand and behavioral intention were measured. The result turned to be that the media sequence of print-video caused the most transportation to the narrative ad, but there were no differences of attitude and behavioral intention caused by the four media sequences. Such a result implicates that, in advertising industry, print-video may be the most effective way to present narrative advertising. Research limitations and directions for future research are also mentioned.

## CHAPTER 1 INTRODUCTION

A narrative advertisement is a commercial telling a story about the “experiences or consequences of product use” (Chang, 2009a, p.52). A narrative ad should include the main characteristics of a story, like protagonists, events, and story-lines, etc. These special characteristics of a narrative ad determine the fact that narrative advertising persuades consumers in a different way from what is described in the traditional persuasion models (like Elaboration Likelihood Model, Petty & Cacioppo, 1986; Heuristic-Systematic Model, Chaiken, 1980) (Green & Brock, 2000; Green, 2004; Chang, 2009a, 2009b; Zheng, 2010). In particular, narrative advertising persuades by transporting consumers into the narrative world of the commercials (Green & Brock, 2000; Green, 2004; Chang, 2009a, 2009b; Zheng, 2010).

Transportation is considered as a highly focused process in which audiences post their most attention to the narratives they read or watch (Green, 1996). Green and Brock (2000) put forward that transportation meant audiences of a narrative material lost themselves in it and felt like they got the experience similar to the characters'. Therefore, the process of transportation can be regarded as "an integrative melding of attention, imagery, and feelings" (Green & Brock, 2000, p. 701). Moreover, the consequences of transportation experience are ignoring the real world physically or psychologically, feeling strong emotions, and behavior change (Green & Brock, 2000).

Transportation into narrative advertising has been investigated from several perspectives. Previous research has considered individual factors (like mental image ability & need for cognition, Zheng & Phelps, 2011a), and message factors (like narrative focus & vividness of product depiction, Zheng & Phelps, 2011b) that could

influence audiences' transportation into narrative advertising. In addition to individual and message factors, "factors external to the ads themselves" may also significantly influence people's reactions to advertising (Durkin & Wakefield, 2008, p. 667).

According to Green, Kass, Carrey, Herzig, Feeney, and Sabini (2008), one external factor, media, is an important issue in narrative processing, and they believed the nature of transportation would be understood better if media factor was taken into consideration.

However, previous research about media factor in narrative advertising largely focused on the effect of media context. For example, Wang and Calder (2006) proposed that high transportation to media content could facilitate the effectiveness of ads inserted, but such a phenomenon could only be observed when ad exposure didn't cause intrusion to people's transportation experience into media content. On the contrary, Chang (2009b) contended that people's involvement into narrative media content would negatively influence the effectiveness of subsequent advertisements. However, media context effect is not the whole picture of investigating media factor in narrative advertising, and not so many studies have explored the impacts of different media per se on the effectiveness of narrative advertising.

In the meantime, previous studies in the media research field have confirmed that cross-media setting would make advertising more effective than single medium, leading to more favorable attitudes and more behavioral intention (Edell & Keller, 1989, 1999; Dijkstra 2002; Naik & Raman, 2003; Chang & Thorson, 2004; Dijkstra, Buijtsels, & Van Raaij, 2005; Bronner, 2006; Havlena, Cardarelli, & De Montigny, 2007; Voorveld, Neijens, & Smit, 2011). Moreover, in the advertising industry, the number of cross-

media campaigns is on the increase (Darby, 2007). And actually, one of the “top trends in the branding and communications industry for 2010 are cross-media advertising campaigns” (Al Bawaba, 2010). It is believed that different media platforms in a cross-media campaign reinforce each other’s message, providing consumers with a deeper connection with the brand (Marketing Week, 2006). However, previous research about cross-media effects on advertising effectiveness mainly focused on the comparison between multiple media and single medium, and there was no enough concern about media sequence effect in cross-media campaigns, even though media sequence effect was critical for advertisers. (Voorveld et al., 2012).

Therefore, according to what has been described, the current research tries to fill the gaps mentioned above. In particular, this study aims to investigate the media sequence effect on the effectiveness of narrative advertising.

## CHAPTER 2 REVIEW OF LITERATURE

### **Media Difference**

Previous research has examined media difference from distinctive perspectives, such as comprehension, retention, and persuasion (eg. Jacoby, Hoyer, & Zimmer, 1983; Hayes, Kelly, & Mandel, 1986; McGinnies, 1965; Chaiken & Eagly, 1983). However, these studies reached no agreements.

### **Comprehension and Retention**

When considering message comprehension and retention, print is believed by some researchers to be the most effective media type. Because the only stimulation is visual in print media, the distraction caused by vocal cues in the audiovisual counterparts can be avoided (Baron, Baron, Miller, 1973; Haaland & Venkatesan, 1968; Insko, Turnbull, & Yandell, 1974), and readers have entire control of information delivery. This provides more opportunities for them to elaborate the message content (Jacoby et al., 1983). By contrast, the opposite viewpoint states that comprehension and retention should be better when people are exposed to audiovisual presentation, because such media type activates more than one sensory mode, which makes messages more comprehensible and memorable (Jacoby et al., 1983; Hayes et al., 1986; Greenfield, 1984; Pezdek, Lehrer, & Simon, 1984).

### **Persuasion**

Similarly, different results came from various studies about the comparison of persuasion between visual media and auditory media. Wilke (1934) and Carver (1935) both supported the idea that better persuasion occurred in vocal media than print. When studying how opinions change, Hovland (1954) proposed that oral presentations

seemed to be better than visual ones. However, the contradictory argument, claiming greater opinion change in written media, was also proposed by other scholars (McGinnies, 1965; Tannenbaum & Kerrick, 1954; Werner, 1978; Werner & Latane, 1976).

Although research about media difference generates contradictory results, the detection of media effect on message comprehension, retention and persuasion implies that “the medium of communication is capable of altering the nature of communication between senders and receivers” (Dijkstra, 2002, p. 11). Accordingly, comparing different media based on audiences’ responses is a receiver-centered perspective which focuses on examining the psychological dimensions within different media. Previous research discovered two significant dimensions in which media differ from each other: modality and medium control (Dijkstra et al., 2005).

### **Modality**

Modality has been investigated for a long time in the persuasion research field (Liu & Stout, 1987). In the 1970s, Chaiken and Eagly (1976) found out modality (video, audio, or written modes) had a different impact on individuals’ learning and attitude. Salomon (1970) differentiated media by each medium’s unique presenting attributes which had particular psychological functions. In recent studies, modality referred to the forms of message delivery associated with human senses which were responsible for information processing (Dijkstra et al., 2005). Similarly, Moreno (2006) defined modality as “the sensory channel that is initially used by learners when they process information” (p. 149). These definitions of modality are in line with the working memory theory which claims that visual and auditory presentations are processed by independent sensory channels (Baddeley, 1992).

Examples of modality are pictures, which correspond to visual sense; audio to auditory sense; as well as video to audiovisual senses. When we adopt the perspective of modality, it is easy to understand that different media present information depend on stimulating distinctive sensory modes (Edell, 1988). For instance, the visual and auditory senses would be simultaneously motivated when people watch television. The modality perspective was supported by Edell's (1988) discussion of nonverbal elements in advertising, which included sound, music and pictures. These nonverbal elements, which are presented by some media and absent in others, influence individuals' information processing and mood induction (Edell, 1988). For example, pictorial stimuli are more likely to elicit better recall than their verbal counterparts (Shepard, 1967; Bower, 1972), and nonverbal elements, such as music and pictures, increase affective arousal which facilitates individuals' information evaluation (Zajonc, 1980).

### **Medium Control**

Medium control is defined as senders or receivers dominating the space and flow of information delivery from various media (Dijkstra et al., 2005). Based on this concept, Van Raaij (1998) came up with two categories of media: delivery and retrieval. Television is a delivery medium. The speed of presentation and the sequence of messages are both decided by information senders, or advertisers in the case of advertising (Dijkstra et al., 2005). As a consequence, audience cannot contemplate the information exhibited by TV because they are not able to keep it. Conversely, print media are labeled as retrieval. Information receivers can make their own decisions about how fast and in what order they read newspapers or magazines. Jacoby et al. (1983) believed that when consumers had control over the medium, they were more likely to digest the information they received.

## **Narrative Advertising**

The current research focuses on the impact of media on the effectiveness of narrative advertising. A narrative ad can be defined as a commercial story presenting the “experiences or consequences of product use” (Chang, 2009a). Previous research has demonstrated that stories in narrative advertising can establish an emotional connection to audiences and those connections will make them more likely to express positive attitudes to the ads (Escalas, Moore, & Britton 2004).

Fiske (1993) proposed that when individuals were reading a narrative, new information would be associated with their previous knowledge structure. These structures are formed based on individuals’ personal life and can facilitate their comprehension of the new information from the narratives (Schank & Abelson 1995; Schank & Berman 2002). Their dependence on these prototypes will be more obvious if the characters of the narratives are not real (Wyer, Adaval, & Colcombe 2002). More to the point, previous knowledge or prototypes are not enough for people to understand the narratives. In most instances, mental models of what is going on in narratives will be established in people’s mind (Wyer 2004; Wyer & Radvansky 1999; Wyer et al., 2002). Furthermore, if an individual is really into a story, he may imagine himself in the very event unfolded in the narrative and such a phenomenon is called mental simulation (Taylor & Schneider, 1989). Escalas (2004) proposed that mental simulation can bring up a favorable evaluation as well as a positive attitude, and this effect will be amplified if such simulation is self-related.

## **Transportation**

Green proposed the Transportation-Imagery Model which was considered as a suitable model to interpret narrative persuasion (Green 1996, Green & Brock, 2000).

Green's (1996) conceptualization of transportation comes from Gerrig's (1993) study. Gerrig (1993) considered readers of narratives as "travelers". These "travelers" are taken from their original world in the process of involvement in the reading materials, and when they return, their beliefs change (Gerrig, 1993).

Transportation, therefore, is considered as a highly focused process in which audience post their most attention to the unfolded stories in the narratives (Green, 1996). Green and Brock (2000) put forward that transportation meant that audiences of a narrative material lost themselves in it and felt like they had an experience similar to the characters'. Therefore, the process of transportation can be regarded as "an integrative melding of attention, imagery, and feelings" (Green & Brock, 2000, p. 701). Green and Brock (2000) also proposed some consequences of transportation, such as ignoring the real world physically or psychologically, feeling strong emotions, and behavior change.

Moreover, Transportation has been demonstrated as the underlying mechanism of narrative persuasion (Green, 1996; Green & Brock, 2000; Green, 2004) and has been applied successfully to explain the effectiveness of narrative advertising (Escalas, 2004; Chang, 2009a, 2009b; Zheng, 2010). Thus, it is reasonable to measure transportation elicited by narrative ads when exploring the effect of media on how people process narrative advertising.

### **Media Effect on Transportation**

Involvement is a widely examined concept in communication research (Salmon, 1986; Roser, 1990; Vorderer, 1993; Wirth, 2006). Previous research explored media involvement from the perspectives of modality and medium control (Krugman, 1965; McLuhan, 1964). Krugman (1965) considered television as a low-involving medium,

because television “bombards us with enough trivia” (p. 353) which might cause us to overlearn some information. In other words, audiences get no control of information delivery on television. On the contrary, McLuhan (1964) thought television should be more involving than print due to the stimulation of both visual and auditory sensory modes. Other scholars tried to reconcile such contradictory conclusions by adding message content as a moderating factor (Wright, 1974), or dividing involvement into two categories: rational involvement and emotional involvement (Chaudhuri & Buck, 1995). All the studies mentioned above admitted the roles of modality and medium control in deciding individuals’ involvement to different media.

The concept of involvement shares some similar elements with the concept of transportation. They both refer to the experience that individuals get intensely engaged into stimuli. Moreover, it is believed that there are cognitive dimension (like attention) (Batra & Ray, 1985; Roser, 1990) and affective dimension (like emotion) (Roser, 1990) in the concept of involvement. Similarly, when Green and Brock (2000) introduced the Transportation-Imagery Model, they emphasized cognitive attention and emotional involvement in individuals’ experience of transportation. However, although there are some overlaps, involvement and transportation are different. Involvement “is regarded as a motivational meta-concept that includes various forms of intense interactions with a mediated stimulus” (Wirth, Hartmann, Bocking, Vorderer, Klimmt, Schramm et al., 2007, p. 521). Such a concept stresses that people connect what they see to what they believe and care. A high involving individual would consider the stimulus as being of “intrinsic importance” (Sherif & Hovland, 1961, p. 197), or “personal meaning” (Sherif, Kelley, Rodgers, Sarup, & Tittler, 1973, p. 311). In media research, involvement also

accentuates connections between media content and audiences' values, experiences and beliefs (Krugman, 1965). Highly involving audiences tend to explain media content in their own ways (Batra & Ray, 1985; Perse, 1988). However, a highly transported individual would be deeply engaged into the narrative world without taking their own values and beliefs into consideration (Green et al., 2008). In transportation experience, audiences focus on the narratives with their full cognitive capacity and feel the emotions of the characters (Green & Brock, 2000; Green, 2004). Unlike people with high involvement, a highly transported individual wouldn't consider themselves and the real world. In other words, "transportation refers to immersion in the narrative world rather than drawing links between the narrative world and the real world" (Green et al., 2008, p. 513). However, in spite of the difference between involvement and transportation, as we discussed before, these two concepts shared some similar elements. In addition to the fact that people would feel different levels of involvement into different media, it is reasonable to claim that different media could also give rise to different levels of transportation.

Green et al. (2008) thought vividness and effort were the two important factors that should be taken into consideration when comparing the potential of eliciting transportation between print and film. Movies are thought to be more vivid than print, so it is supposed that individuals are more likely to be transported into movie stories (Green et al., 2008). However, when scholars investigated the efforts needed to process different media, contradictory conclusions were made by previous research. On the one hand, processing print messages is believed to require more efforts, because people need to imagine pictures in their minds (Singer, 1980; Salomon, 1984). For example, in

Salomon's (1984) study, subjects were exposed to either TV or print messages, with their perceptions of self-efficiency measured. The results showed that compared to TV, print was found to demand more mental efforts, which was positively correlated with self-efficiency in print media (Salomon, 1984). On the other hand, watching films or television might need more efforts, because characters' thoughts and feelings wouldn't be expressed as explicitly as in the print. Therefore, an audience has to imagine characters' thoughts and feelings from any cues in a movie or a TV show (Green et al., 2008).

So when we take the factors of vividness and effort into consideration to compare the potential of triggering transportation between print and film, several outcomes may occur. One claims that "film could increase transportation relative to print because all viewers are given a vivid, concrete set of images" (Green et al., 2008, p. 517), which is beneficial for the fluency of processing of narratives. The visual presentation in films makes it easy for the individuals who are not good at mental imagery to form scenarios in their mind; the sounds and music in films provide opportunities for audience to have deeper insight into the characters and make audiences emotionally involved into the stories (Green et al., 2008). Nevertheless, the "vivid, concrete set of images" (Green et al., 2008, p. 517) in films may hinder viewers' own imaginations, leading to less transportation, whereas print narratives make readers free to form mental images of the unfolded stories, and allow them to deal with the narrative information on their own space. As a result, transportation is more likely to be elicited by print media rather than films. A third line of opinion about transportation in film and print suggests that these two types of media are equal in inducing transportation. They both share the factors that are

crucial for transportation, like attracting plots as well as making individuals feel sympathy for the characters in the stories (Green et al., 2008; Dal Cin, Zanna, & Fong, 2004). Furthermore, Green et al. (2008) believed that it was possible that print and video elicited transportation in different ways, with video using audiovisual motion pictures and print providing more chances to elaborate information. Such a viewpoint was supported by Dal Cin et al. (2004) who found no media difference between movie and print stories. In conclusion, previous research provided little evidence to support any medium's superiority on eliciting transportation, indicating that more research should be conducted on this issue. Since the current study concerns about the effect of media on the effectiveness of narrative transportation, we begin with the following research question:

*RQ1: Which medium (print or video) would make individuals more transported to narrative ads?*

This research question aims to compare the effects of different media on the effectiveness of narrative advertising. As it is mentioned above, the more individuals are transported into a narrative ad, the more likely they would change their attitudes according to the story in the ad, and the more effective the ad would be (Green & Brock, 2000; Escalas, 2004; Chang, 2009a, 2009b; Zheng, 2010). Therefore, comparing subjects' transportation experience to the ads with the same content presented by print and video would tell us which medium (print or video) could make narrative advertising more effective.

### **Processing Multiple Media**

The current study does not just compare the effects of different media on eliciting transportation. We are more interested in media sequence effect on how people

process narrative advertising and how people experience transportation. The discussion of media sequence effects will be established on the elaboration of multiple media effects. As discussed before, modality and medium control “have an impact on the way consumers attend to, process, respond to, remember, and learn from media” (Dijkstra, 2002, p.11). In other words, modality and medium control influence people’s choices of information-processing approaches when they are exposed to different media. The following section will inspect the effect of multiple media on advertising effectiveness by adopting the perspective of information processing, expecting to lead to the discussion of media sequence effect on the effectiveness of narrative advertising.

It has been demonstrated that intense cognitive responses are associated with multiple information sources (Chang & Thorson, 2004). In one study, subjects were exposed to several similar ads, which shared the same basic arguments, but differed in the expression and sequence of presenting these arguments. After viewing each ad, subjects were asked to provide their thoughts, which were used to analyze their cognitive responses. The results of the study showed that the overall cognitive response scores were positively related to the number of ads they were exposed, indicating that multiple ads could generate more cognitive activities (McCullough & Ostrom, 1974). Harkins and Petty (1981a, 1981b, 1987) conducted a study about the effect of multiple information resources. In one such study, subjects viewed a videotape of one or three speakers presenting one or three arguments, and after that their thoughts were recorded. It turned out that the subjects who were exposed to three arguments in a video generated more thoughts about the messages than those who watched the video including only one argument (Harkins & Petty, 1981a). In a follow-up study, Harkins and

Petty (1981b) added a distraction task to the similar experimental design, and found that the multiple information resources could make subjects recall more about the messages than single information resource, even in the presence of distraction, indicating that during the exposure of messages, multiple information resources made subjects think more about the messages than a single information resource. Harkins and Petty's (1987) third study explored why multiple information resources could stimulate more cognitive thinking. In the experiments, subjects' responses to messages were impacted by the manipulation of telling them the messages came from a dependent committee or an independent one, or informing them that the members of the committee had similar perspectives or dissimilar perspectives. The results implied that multiple information resources caused more cognitive thinking by making people perceive that the resources were independent with different perspectives, which needed to be contemplated (Harkins & Petty, 1987). In addition, Edell and Keller (1999) investigated the combination of TV and print advertising, claiming that multiple sources gave rise to more evaluation by subjects. In particular, they detected that the subjects who watched the a TV ad first, would process the subsequent print ad more carefully, and recalled more information than those who didn't watch the TV ad (Edell & Keller, 1999). Similarly, when subjects saw a print ad first and then watched a TV ad, they would also process the TV ad to a greater extent by generating more recall than those who just watched the TV ad without former exposure to the print ad (Edell & Keller, 1999).

Accordingly, Chang and Thorson (2004) adopted the classical Elaboration Likelihood Model (ELM, Petty & Cacioppo, 1986) to compare the different routes of information-processing that individuals used when they were exposed to multiple

advertising media (labeled as media synergy) versus single advertising medium (labeled as medium repetition). In line with previous research, media synergy motivates people to be more concerned about the advertisements than media repetition (Allen, Kania, & Yaeckel, 1998; Blackwell, Miniard, & Engel, 2001; Brock, Albert, & Becker, 1970; Grass & Wallace, 1969; Putrevu & Lord, 2003; Rossiter & Bellman, 1999). Moreover, individuals exposed to media synergy are more likely to contemplate the advertising messages than those exposed to media repetition (Edell & Keller, 1999; Harkins & Petty, 1981a, 1981b, 1987; McCullough & Ostrom, 1974). Such experience is labeled as the central processing route in ELM, which refers to the process in which individuals base their judgments on the elaboration of the main arguments in the advertising messages as well as the crucial characteristics of the products (Petty & Cacioppo, 1986, 1996a). On the contrary, message repetition is more likely to be processed in the peripheral processing route which means individuals formed their attitude based on peripheral cues (Petty & Cacioppo, 1986, 1996a), since repeated exposure to the same advertising message makes audiences less motivated to deliberate the arguments.

The fact that advertisements presented by multiple media are processed differently from repeated presentation by a single medium indicates the possibility that multiple media and single medium would have a different impact on advertising effectiveness. Actually, previous research about cross-media campaign has already substantiated that multiple-media campaigns are more persuasive than those using single medium, with more favorable attitudes and more behavioral intention associated with cross-media campaigns (Edell & Keller, 1989, 1999; Dijkstra 2002; Naik & Raman,

2003; Chang & Thorson, 2004; Dijkstra et al., 2005; Bronner, 2006; Havlena et al., 2007; Voorveld et al., 2011). For example, Edell and Keller (1989) examined the synergy of TV and radio ads. Subjects were randomly assigned to six different conditions (TV-radio, radio-TV, TV-TV, radio-radio, TV, radio). The analysis of subjects' thoughts found that a radio replay, which meant listening to a radio ad in the second exposure, generated less critical thoughts, a sign of less evaluative processing (Edell & Keller, 1989). Besides, Edell and Keller (1989) detected better recall of ads in media synergy conditions than in single medium ones. Moreover, Chang and Thorson (2004) also explored the media synergy effect by considering television and the internet. In particular, they detected that compared to medium repetition, television-web synergy made subjects pay more attention to the target ads, and made them more likely to believe the advertising messages. The analysis of the subjects' thoughts also revealed that synergy stimulated more positive attitudes than single medium repetition (Chang & Thorson, 2004).

However, knowing the fact that cross-media can make advertising more effective than single-medium still leaves an incomplete picture of the process. According to Voorveld, Neijens and Smit (2012), cross-media effects should be further investigated by examining the effect of media sequence on advertising effectiveness. It is necessary to take media sequence into consideration when investigating cross-media effects on advertising effectiveness, because it has been substantiated that individuals' judgments are influenced by the order of information presentation (Haugtvedt & Wegener 1994; Loda & Coleman 2005) In fact, the topic of media sequence has been more or less covered by previous research about cross-media campaigns (Ephron, 2000; Bronner, 2006; Wang & Nelson, 2006; Havlena, Kalluf, & Cardarelli, 2008). The current study will

also make some contribution to this line of research by investigating media sequence effect on the effectiveness of narrative advertising. In the following sections, we start with the discussion of repetition effect. Then we consider message repetition across different media, exploring why cross-media presentation makes advertisements more effective. Afterwards, we discuss how sequence of information presentation influences persuasion, leading to our final concern of media sequence effect on advertising effectiveness.

### **Repetition Effect**

Advertising presentation in a cross-media campaign can be regarded as a particular type of message repetition, because those ads in the same campaign “have the same valence (i.e. favorable to the product and the brand)” (Voorveld et al., 2012, p. 204). Thus, we start our discussion about media sequence effect from the repetition effect.

During the 1980s, based on several field studies and lab experiments, Tannenbaum (1985) proposed that there was “an appetite among the public for repetition and redundancy for the familiar fare of popular culture and entertainment as represented on television” (p. 232). Tannenbaum (1985) explained such phenomenon by adopting Schachter’s (1964) theory of a two-stage model. In particular, with a second exposure, the emotional reactions would not be as strong as audiences experienced in the first exposure, but audiences needed less effort to search for explanations for their feelings, due to their familiarity with the program. “The motivation is not in the reexposure but in the reexperiencing” (Tannenbaum, 1985, p. 238).

Different theories, however, predicted different outcomes as a consequence of repetitive reading (Brewer, 1996). Uncertainty theories (Ortony, Clore, & Collins, 1988;

Kintsch, 1980) suggested rereading was unattractive, because there was no uncertainty. Some theories held an opposite viewpoint by adopting an “amnesia effect,” which meant when people read stories for a second time, they might forget the information they learned in a previous reading (Brewer, 1996). These theories claimed that rereading was supposed to be as enjoyable as the first reading, because there was no emotional change (Walton, 1978; De Beaugrande & Colby, 1979, Gerrig, 1989). Other scholars with the same opinion contended that rereading might be appreciated because people would forget part of the stories (Brewer, 1996) or they just didn’t realized some content due to their limited cognitive capacity (Boulton, 1975).

Therefore, although there was no agreement about what effects repetition imposed on message persuasion, one consensus was confirmed that message repetition effect did exist. In the media research field, repetition effect has been popularly investigated by using single medium. Message repetition within the same medium was believed by some scholars to facilitate message effectiveness, due to fluency feeling (Vaughn, Petkova, Trudeau, Hesse, McCaffrey, Candeloro et al., 2007) as well as deeper understanding of the message (Bortolussi & Dixon, 1996). Other scholars emphasized the negative effect of repetition within the same medium, claiming that curiosity and suspense tended to be reduced (Brewer, 1996). Furthermore, in accordance with Green et al. (2008), repetition exposure should be further studied in the setting of cross-media. Such a suggestion is consistent with actual practice in the advertising industry. It was reported that in the year of 2001 nearly 85% of large advertising campaigns adopted a multiple advertising strategy (Bronner, Neijens, & Van

Raaij, 2003). Therefore, message repetition presented by different media deserves more scrutiny in advertising research.

### **Cross-Media Effect**

As we discussed before, individuals adopted different information-processing approaches to deal with synergy of different media versus several exposures of the same single medium, which contributed to different message effectiveness. Media synergy seems to make communication more effective. However, why could cross-media setting facilitate advertising effectiveness? Voorveld et al. (2011) came up with three psychological processes that might occur when consumers processed advertisements in a cross-media setting: forward encoding, image transfer, and multiple source perception. We believe this deeper insight of information processing would explain why multiple media can positively influence advertising effectiveness.

#### **Forward Encoding**

Forward encoding is defined as the process in which the first ad exposure motivates an audience to process the second ad (Voorveld et al., 2011). By arousing the audience's interest and attention (Bronner et al., 2003; Edell & Keller, 1989, 1999; Dijkstra, 2002), the initial exhibition of a certain advertisement would lead to deeper processing and easier encoding of a latter one (Dijkstra, 2002). In other words, during the experience of forward encoding, the first ad makes individuals more willing and more able to process the second ad.

Voorveld et al. (2011) also explained the process of forward encoding from the perspective of memory storage. Actually, during the exposure of the first ad, part of the ad would be stored in people's memory (Keller, 1987). Thus later, when people deal

with a similar ad in a different medium, the memory which was previously stored would be activated to help process the second ad in more depth (Voorveld et al., 2011).

Furthermore, it should be emphasized that forward encoding is more likely to occur within the cross-media circumstance. According to Dijkstra (2002), people will not be encouraged to process an exact duplicate of a certain ad. Such a phenomenon can be explained by the Differential Attention Theory (Unnava & Burnkrant, 1991), which supposes that both motivation and interest would be reduced when people deal with the same message repeatedly. Notwithstanding, the use of different media can avoid the problem of pure repetition by delivering the same information with different presentation forms (Voorveld et al., 2011).

Some previous research has mentioned forward encoding in cross-media advertising campaigns. By asking subjects to report their interest in the second ad, Dijkstra (2002) detected higher forward encoding in the cross-media condition. Edell and Keller (1989, 1999) also discovered the appearance of forward encoding in some cross-media conditions in their studies, by checking the results of thought listing. Voorveld et al. (2011) listed forward encoding as one of the approaches of information-processing that people would adopt in a cross-media campaign, and stated that forward encoding enhanced campaign results.

### **Image Transfer**

Image transfer happens when people are processing the second ad after seeing the first one. It refers to audiences' experience of mentally reiterating what they have watched in the first ad when they are exposed to the second one (Voorveld et al., 2011). The Encoding Specificity Principle claimed that individuals would have better recall if they were exposed to the clues which were used initially to store information into their

memory (Tulving & Thomson, 1973). By adopting this principle, Dijkstra (2002) interpreted image transfer as the process in which "the elements in the second ad may function as retrieval cues to the ad memory trace from the first exposure" (p.66), due to the similarity of the two ads.

Moreover, in the same way as forward encoding, image transfer is also believed to be easily triggered in a cross-media campaign (Edell & Keller 1989), but not single-medium. It is said that message repetition presented by a single medium makes it unnecessary to get information from people's memory about the first exposure, because the exactly same ad can be directly processed with no difficulty (Dijkstra, 2002). Previous research also confirmed the appearance of image transfer in a cross-media campaign (Dijkstra, 2002; Edell & Keller, 1989), and its contributing role of facilitating advertising effectiveness (Voorveld et al., 2011).

### **Multiple Source Perception**

The so-called multiple source perception talks about the fact that people are more likely to trust the message delivered by multiple independent sources (Harkins & Petty, 1981a, 1987; Bronner et al., 2003; Gotlieb & Sarel, 1991). Such a phenomenon can be illustrated by the Economic Signaling Theory (Nelson, 1974). In the context of advertising based on this theory, repeated advertising exposure indicates high expenditures, which in turn implies more credible brand and product quality (Kirmani, 1997). Moreover, Voorveld et al. (2011) further contended that a cross-media campaign would magnify such an effect, because multiple media were considered more costly than using one single medium.

When individuals are exposed to advertisements presented by multiple media, they would go through the processes of forward encoding, image transfer and multiple

sources perception. Therefore, influenced by these three psychological processes, individuals would be more likely to express favorable responses to the advertisements. Consequently, it is reasonable to claim that a cross-media effect does exist, and has positive influence on advertising effectiveness. As discussed before, the effectiveness of narrative advertising could be measured by an audience's transportation experience (Green, 1996; Green & Brock, 2000; Green, 2004; Chang, 2009a, 2009b; Zheng, 2010). Therefore, we assume that the cross-media effect on narrative advertising can be detected by investigating the impact of multiple media on eliciting transportation:

*H1: Subjects would be more transported into the second narrative ad than the first one.*

This hypothesis is proposed to demonstrate that cross-media setting would make narrative advertising more effective. The cross-media setting is created by providing subjects with a second exposure to the ads. If subjects are more transported to the ads in the second exposure than they were in the first one, it is reasonable to believe that cross-media setting would positively influence advertising effectiveness.

### **Media Sequence Effect**

A deeper insight into a cross-media effect can be obtained by investigating the media sequence effect, which refers to the impact of different orders of multiple media on the effectiveness of the advertisements presented by these media (Voorveld et al., 2012). Apparently, a media sequence effect can only happen in a cross-media setting because of the premise of multiple media. It has been substantiated that cross-media can make advertising more effective, but what remains unclear is whether the sequence of media presentation can make a difference (Voorveld et al., 2012).

## **Sequence Effect on Persuasion**

The investigation of a media sequence effect can benefit from research in other fields about information persuasion being influenced by presentation sequence (Haugtvedt & Wegener, 1994; Loda & Coleman, 2005). According to Hovland, Campbell, and Brock (1957), message order tends to have two types of effects on how individuals process two opposite messages within a similar topic. One is the primacy effect which happens when the initial message dominates people's evaluation of the topic. The other is the recency effect, which means judgments are produced mainly based on the last message.

Previous research about this issue mainly focused on the conditions in which either primacy or recency effect would take place. Lana (1961) found that people's familiarity to the messages played a part, with high familiarity causing primacy effect, and low familiarity leading to a recency effect. Later, Lana (1963b) also discovered that when audiences were dealing with something controversial, the primacy effect occurred. Furthermore, individual interest in the message' topics was also influential (Lana, 1963a). A highly interested subject was more likely to adopt the primacy effect, while his less interested counterpart was more likely to show the recency effect. Haugtvedt and Wegener (1994) noted that a primacy effect would happen when people expressed strong attitudes about first message and pondered it further, suggesting that they were motivated to process the first message in a central way, which refers to the process of individuals basing their judgments on the elaboration of the main arguments in the messages (Petty & Cacioppo, 1986, 1996a); while for people who considered the first message lightly, the recency effect was more likely to happen (Haugtvedt & Wegener, 1994). Although the discussion about a primacy/recency effects can be difficult to apply

to the research on media sequence effects, due to the fact that primacy/recency effects focus on contradictory messages, while in a cross-media setting, messages are always in tune with each other (Voorveld et al., 2012), the proposal of a primacy/recency effects at least proves that sequence does influence communication effectiveness.

### **Media Sequence Effect on Advertising**

It has already been demonstrated that a cross media campaign can facilitate advertising effectiveness by making consumers go through forward encoding, image transfer and multiple source perception during their exposure to advertisements (Voorveld et al., 2011). Research in other fields also proved that presentation sequence can influence the effectiveness of communication (Lana, 1961, 1963a, 1963b; Haugtvedt & Wegener, 1994). Therefore, based on these two lines of research, it is logical to assume that the presentation sequence of advertisements delivered by different media would influence individuals' responses to the ads. In other words, a media sequence effect on advertising effectiveness does exist.

So far, media sequence effects have received little attention in the advertising research field (Voorveld et al., 2012). Most studies about multiple media emphasize the comparison between the effectiveness of a cross-media campaign and that of a single medium campaign (Edell & Keller, 1989, 1999; Dijkstra, 2002; Chang & Thorson, 2004). In fact, based on our knowledge, only one study, conducted by Voorveld et al. (2012), focuses on media sequence effects on advertising effectiveness.

Voorveld et al. (2012) adopted the concept of product involvement to investigate the sequence effect of the combination of television and website advertising (TV-web vs web-TV). Specifically, they believed that a TV-website sequence would be more effective in presenting a low involvement product. Their rationale was that TV

advertising would be better at attracting consumers to low involvement products (Krugman, 1965; Buchholz & Smith, 1991; Dijkstra et al., 2005). Therefore, a TV ad would evoke consumers' interests and motivations to process the subsequent web ads (Yoo & Stout, 2001; Levy & Nebenzahl, 2008; Liu & Shrum, 2009). If such a sequence was reversed, which means the web ads would be presented first followed by the TV ads, the former would fail to trigger enough interest or attention, because consumers would be less involved in the products. As a result, they wouldn't be motivated to process the later TV ads. On the contrary, it is posited that both TV-web and web-TV sequences are equally effective for high involvement products. When consumers are highly involved, they are motivated to get any information that is available (Beatty & Smith, 1987; Buchholz & Smith, 1991; Volk & Kraft 2005), so "they might appreciate both websites and TV commercials" (Voorveld et al., 2012, p. 208).

The focus of the current research is whether the sequence of combination of print and video would influence the effectiveness of narrative advertising. Voorveld et al. (2012) research provides a promising starting point to investigate media sequence effect by considering two media types: television and internet, as well as adding product involvement as a moderating factor. However, the result of Voorveld et al. (2012) research should be carefully scrutinized. The website ads used in the research just included texts and photos, making the Internet advertising more like print ads, ignoring the fact that the internet platform could contain almost every other medium. Furthermore, they also adopted the theories of print media processing to explain how website communication worked (Voorveld et al. 2012). Although Voorveld et al. (2012)

considered the internet medium, their study was still based on previous research about traditional media.

Building upon the work of Voorveld et al. (2012), the current study examines the media sequence effect of print and video on the effectiveness of narrative advertising:

*RQ2: What combination of print and video media (print-video; video-print; print-print; video-video) would cause the most transportation to the second narrative ad?*

*RQ3: What combination of print and video media (print-video; video-print; print-print; video-video) would cause the most positive attitude toward the ad (RQ3a), the most positive attitude toward the brand (RQ3b), and the most behavioral intentions (RQ3c).*

The last two research questions are proposed to test media sequence effect on the effectiveness of narrative advertising. In particular, we expect to find out which one of the four sequences (print-video; video-print; print-print; video-video) can make narrative advertising the most effective. We first test the effectiveness of narrative advertising by measuring transportation, because it has been demonstrated that transportation is positively related to the effectiveness of narratives (Green & Brock, 2000; Escalas, 2004; Chang, 2009a, 2009b; Zheng, 2010). Then we also test the effectiveness of narrative advertising by measuring subjects' attitude towards the ad, attitude towards the brand, behavioral intention. These three variables were popularly used in previous research about advertising effectiveness.

## CHAPTER 3 METHODS

### **Design**

The experiment was separated into two stages. There was a three-day interval between the two stages. Subjects attended both stages. In each stage, they were randomly assigned to read a print narrative ad or watch the same ad in video version, resulting in four conditions: print-video, video-print, print-print, and video-video. The print ad was made into hard copies and was handed out to subjects during the experiment. The video ad was presented by projectors.

### **Subjects**

Ninety first year undergraduate students at a southeastern Chinese university were recruited (37 males, 53 females,  $M$  age = 20). They were told that the experiment was about individuals' responses to some advertisements. After the first stage 20-minute experiment, subjects signed up for the second stage of the experiment three days later. They received extra course credit for participating in the experiment.

### **Procedure**

In each stage, subjects in a certain condition were tested at the same time. They were assembled in a small classroom with a projector. At the beginning, they were given a brief explanation of the experiment, including what they would do in the experiment, what rights they had during the experiment, how they could contact the researchers if they wanted more information about the experiment, and to whom they could complain if they thought their rights were violated during the experiment. After that, subjects either watched a video narrative ad named "What Do We Live For", or read the corresponding print version of this ad. The video ad was presented by a projector, and

the print ad was handed out as hard copies. After reading or watching the ad, subjects completed a questionnaire (described below).

### **Materials**

**What Do We Live For.** This ad is selected from hundreds of ads in several video websites in China, and lasts for three minutes. This ad is aimed to present the brand image of a bank in Taiwan (Ta Chong Bank). This ad depicts five old men in Taiwan riding their motorcycles traveling around the whole island trying to find out the essential meaning of being alive; all of them suffer some serious diseases and the death of a close friend prompts them to make this trip. The connection of this story to the bank is the name of the bank. “Ta Chong” means “people” in Chinese. The characters in the story are all ordinary people, but their behaviors are unique. Accordingly, the ad tries to communicate the idea that Ta Chong Bank is the bank for ordinary people, but ordinary people can be extraordinary. The print version of this ad was made by the researchers. We selected the six most important scenes, which could present the outline of the story, from this ad. We snapshot the pictures from the video, put them in the print ad, and included introductory text for the story.

**Demographics.** Subjects gave their age, gender, and major.

**Transportation.** Subjects completed a 12-item transportation scale (Green & Brock, 2000), consisting 11 general questions measuring cognitive attention, mental imagery, and emotional involvement, and one specific questions about subjects’ mental images of the main characters (old men riding motorcycles). Example items are “While I was reading/watching the narrative, I could easily picture the events in it taking place”, “While I was reading/watching the narrative, activity going on in the room around me was on my mind”, and “When I read or watched the story, the vivid images of those old

men came into my mind.” All the items were answered by choosing from “1=strongly disagree” to “7=strongly agree.” The combination of answers to all the items generated the transportation scores (First stage transportation:  $M=4.75$ ,  $SD=0.62$ ,  $Range=3.25$ ; Second stage transportation:  $M=4.67$ ,  $SD=0.58$ ,  $Range=2.75$ ). The scale was translated into Chinese. Three coders individually translated the Chinese version back to English. The retranslated versions were almost completely identical to the original one.

**Ad attitude, brand attitude, and behavioral intention.** Subjects also completed the scales measuring their attitude towards the ad, attitude towards the brand, and behavioral intention. Although lots of previous research measuring advertising effectiveness used the variables of attitude towards the ad, attitude towards the brand, and behavioral intention, there was no consensus about which items were the most appropriate to be include in the scales. In the current research, we reviewed nearly 100 articles in which the three variable were measured, and came up with our own scales of attitude towards the ad, attitude towards the brand, and behavioral intention. Attitude towards the ad was measured by six bipolar adjectives: good/bad; positive/negative; favorable/unfavorable; like/dislike; pleasant/unpleasant; and informative/uninformative. Attitude towards the brand was measured by five bipolar adjectives: good/bad; pleasant/unpleasant; favorable/unfavorable; positive/negative; and appealing/unappealing. Behavioral intention was measured by the following questions: I am more likely to remember the brand name after seeing the ad; I would recommend this bank to my friends who are interested in bank service; I am more likely to purchase the product after seeing the ad; I am more likely to use a free trial of this service after seeing this ad; I am more likely to request additional information of the service after

seeing this ad. All of the items were measured along a seven-point scale and were translated into Chinese. Three coders individually translated the Chinese version back to English. The retranslated versions were again almost identical to the original one.

## CHAPTER 4 RESULTS

**First stage transportation.** We compared the first stage transportation scores between the print version and the video version. The results of Independent-Sample T Test showed that subjects' transportation scores for the video version ( $M=4.97$ ,  $SD=0.55$ ) were significantly larger than those for the print version, ( $M=4.52$ ,  $SD=0.60$ ),  $t(88) = 3.66$ ,  $p < .05$ . Therefore, the answer to RQ1 was that video made individuals more transported into the narrative ad than print did.

**Second stage transportation.** First we conducted a Paired-Sample T Test to compare the first stage transportation scores and the second stage transportation scores. The results showed that the second stage transportation scores ( $M=4.93$ ,  $SD=0.53$ ) were significantly larger than the first stage transportation scores ( $M=4.36$ ,  $SD=0.58$ ) only in print-video condition,  $t(25) = 5.16$ ,  $p < .05$ . However, there were no significant differences between first and second stage transportation for the print-print condition ( $t(17) = 2.05$ ,  $p > .05$ ) and video-video condition ( $t(23) = 1.96$ ,  $p > .05$ ). And the second stage transportation ( $M=4.37$ ,  $SD=0.49$ ) was significantly lower than the first stage transportation ( $M=4.91$ ,  $SD=0.55$ ) in the video-print condition,  $t(21) = 4.47$ ,  $p < .05$ . Thus, H1 (greater transportation to the second ad exposure) was only supported when the narrative ad was presented in the sequence of print-video, but not in other sequences.

Then we conducted an ANOVA on second stage transportation with media sequence (print-video, video-print, print-print, and video-video) as the independent variable. There was a significant main effect of second stage transportation ( $F(3, 86) = 5.33$ ,  $p < .05$ ). The second stage transportation in print-video condition ( $M=4.93$ ,

$SD=0.53$ ) was significantly larger than that in video-print condition ( $M=4.37$ ,  $SD=0.49$ ) and print-print condition ( $M=4.49$ ,  $SD=0.62$ ), but was not significantly larger than that in video-video condition ( $M=4.81$ ,  $SD=0.55$ ). In conclusion, the answer to RQ2 was that the narrative ad presented in print-video sequence caused the most transportation among the four sequences (print-video, video-print, print-print, and video-video).

**Attitude towards the ad.** We also conducted an ANOVA on subjects' attitude towards the second stage ad with media sequence (print-video, video-print, print-print, and video-video) as the independent variable. However, we detected no significant main effect of subjects' attitude towards the second stage ad,  $F(3, 86) = 1.52$ ,  $p > .05$ . Therefore, the answer to RQ3a was that there were no differences of attitude toward the ad caused by different media sequences.

**Attitude towards the brand.** We also conducted an ANOVA on subjects' attitude towards the brand in the second stage with media sequence (print-video, video-print, print-print, and video-video) as the independent variable. We detected no significant main effect of subjects' attitude towards the brand in the second stage,  $F(3, 86) = 1.51$ ,  $p > .05$ . Therefore, the answer to RQ3b was that there were no differences of attitude toward the brand caused by different media sequences.

**Behavioral intention.** We also conducted an ANOVA on subjects' behavioral intention in the second stage with media sequence (print-video, video-print, print-print, and video-video) as the independent variable. We detected no significant main effect of subjects' behavioral intention in the second stage,  $F(3, 86) = 2.89$ ,  $p > .05$ . Therefore, the answer to RQ3c was that there were no differences of behavioral intention caused by different media sequences.

In sum, video makes individuals more transported into the narrative ad than print does. And print-video leads to the most transportation to the narrative ads among the four media sequences. However, there are no differences of attitude toward the ad, attitude toward the brand or behavioral intention caused by different media sequences.

## CHAPTER 5 DISCUSSION, RESEARCH LIMITATION, AND CONCLUSION

### **Discussion**

The first research question is to explore which medium (print or video) would make individuals more transported to narrative advertising. According to the results of our experiment, subjects who watched the narrative ad in video version were more transported into the ad than those who read the print version. As we have discussed before, a video not only provides audiences with motion pictures, but also lets them hear the sound and music. Compared to print media, video media stimulate multiple sensory modes of human beings, making the narratives more vivid than those written in words do. Furthermore, a video presents stories directly in front of audiences. Individuals can see characters, backgrounds, and other elements in the stories. They don't have to make an effort to build all the stories elements in their minds. It is much easier for audiences to get engaged into a story presented in video. Furthermore, previous research in psychology field has claimed that people are "cognitive misers", which means people tend to not make too much cognitive effort to deal with any mental task they encounter (Fiske & Taylor, 1991). Accordingly, in general, people are reluctant to make an effort to process media content, making them like video media more than print media. In addition, few people are willing to take full effort to process advertisements in real life. Individuals' purpose of reaching media content is to enjoy media programs, not advertisements. And in our experiment, when subjects were told that they were going to watch or read an ad, they would probably get prepared to put little attention on the stimuli. Thus, it is understandable to get the result that the video narrative ad was more appreciated than the print version.

We also hypothesized that multiple media could facilitate transportation into narrative advertising. However, this hypothesis was only supported with the media sequence of print-video. This result was in parallel with the answer to our second research question: narrative advertising presented in print-video sequence led to the most transportation among the four sequences (print-video, video-print, print-print, and video-video). Green and her colleagues gained a similar result that “reading followed by watching is the most effective way of inducing transportation into a narrative” (Green et al., 2008, p. 530). They believed such a combination of media was the best way in making individuals transported into the narrative world. In particular, when individuals first read the narrative, they can control their own reading pace and have enough time to mentally establish the narrative world in their minds. Then “on the second exposure, they are able to relax and see that narrative world created for them on the screen” (Green et al., 2008, p. 530). However, when subjects watch the narrative in video first, they would accept the images created for them and store these images into their memory. The next time when they read the same story in print, they can easily retrieve the pictures from their memory and don’t have to mentally imagine the story in their mind, so they would be less transported. We have already talked about forward encoding (the process in which the first ad exposure motivates an audience to process the second ad) and image transfer (audiences’ experience of mentally reiterating what they have watched in the first ad when they are exposed to the second one) in a cross-media setting. According to the results of the current research, narrative advertising presented in print form is more suitable for motivating individuals to get prepared to

process the following ads, and video version narrative advertising is better at making audiences mentally reiterating the previous ads they have seen.

We detected no differences of attitude towards the ad, attitude towards the brand and purchased intention caused by different media sequences in our experiment. In other words, although print-video was found to induce the most transportation into narrative advertising, such a media sequence was not found to cause the most favorable attitude towards the ad, attitude towards the brand and most behavioral intention. Such results surprised us to some extent, because based on previous studies, transportation should be positively related to the effectiveness of narratives, which included attitude and behavioral intention (Green & Brock, 2000; Green, 2004). The main reason for the disconnection of transportation to advertising effectiveness in our experiment might be the ad stimulus we used. “What Do We Live For” told a very appealing story, and the three-minute length was enough to make people engaged into the story. Actually, lots of subjects told us after the experiment that they were deeply touched by the story, and when they watched it, they felt that they were inside the story and could feel the pain, motivation and hope of the characters. However, the story was depicted in an advertisement of a bank, but such a story seemed have nothing to do with bank service. The only connection was that the name of the bank meant ordinary people and the characters in the story were ordinary people. Therefore, although “What Do We Live For” was highly evaluated as an appealing story, subjects didn’t consider it as an effective ad. In other words, transportation scale measured subjects’ reactions to the story per se, but the ad attitude scale asked them to treat the story as a commercial. Since the story presented nothing about the service which should be advertised,

subjects regarded it as a less effective commercial. And they also responded in the same way when they were asked to evaluate the bank brand. In addition, the bank was in Taiwan, and the subjects in our experiment were all the citizens in P. R. China. For some political reasons, this bank has not had its business in P. R. China. Thus, when considering behavioral intention, subjects may have tended to take reality into account, expressing less intention to use this bank service. Accordingly, the above discussion makes us notice that transportation is not always positively related to the effectiveness of narrative advertising. In previous research of narratives, scholars detected that when individuals were transported into a story, they would be more likely to express favorable attitude towards the story (Green & Brock, 2000; Green, 2004). Such phenomenon was also observed in our experiment. Although we didn't measure subjects' attitude towards the story, based on the post interview to some subjects, they all expressed positive feelings to the story. However, scales measuring advertising effectiveness (attitude towards the ad, attitude towards the brand, behavioral intention) asked subjects to evaluate the story as a commercial. In this case, a highly transporting story may not be an effective ad, because the story may not be related to product/service consumption, just as "What Do We Live For" in our experiment. Therefore, future research about the effectiveness of narrative advertising should consider the relevancy between advertising stories and brand/product advertised.

In sum, generally speaking, narrative ads presented by video media are more effective to attract individuals than the ads in print media, because people are not supposed to put full attention on advertisements, and video media, like television, don't need audiences to make too much effort to be transported. Furthermore, multiple-media

campaigns of narrative advertising should adopt the media presentation sequence of print-video, because such a sequence can cause the most transportation into the narrative ads, making narrative advertising effective. In addition, the relevancy between advertising stories and brand/product advertised might be a significant issue in narrative advertising. We have detected that irrelevant stories have the potential to destroy advertising effectiveness. Therefore, story-product relevancy might be an important concern in both future research of narrative advertising and advertising industrial practice.

### **Research Limitation**

The ad stimulus in the experiment was about three minutes long, so that subjects could easily be transported into the ad story. However, in reality, most TV commercials last for only thirty seconds, due to huge advertising expenditures. Therefore, the advertising watching situation in the current study is difficult to be applied into a real-life situation of watching TV commercials. Future studies could use thirty-second video stimuli to detect the effectiveness of narrative advertising. Nonetheless, it is doubted that thirty seconds is enough to present a complete story, making individuals transported. Thus, it might be a challenge for advertising professionals to create highly transporting narrative advertisements which last for such a short time.

Another limitation of this study comes from the disparity between lab experiment and real life commercial watching situation. In our experiment, subjects were only exposed to the ad stimuli, and they were forced to pay attention to the narrative ads. However, in real life, commercials are always inserted into TV programs. Moreover, individuals' main purpose of watching TV is not to process commercials, so they may pay less attention to advertisements, taking little effort to process them. Therefore, the

high transporting ads in lab experiments may not transport audiences in real life commercial watching situation. Future study should take this issue into consideration. When investigating advertising effectiveness, experiment designs should be more close to commercial watching situation in real life.

The third limitation is that in the current study, the media types that are taken into account are only print and video. However, media sequence effect would be further examined if other media types could be included. Future studies should investigate other media types, like radio or the Internet; or should add other media types on the base of the current study. It should be noted that the more media types included, the more complicated experiment designs would be.

The fourth limitation is the print stimulus used in the experiment. As introduced before, we included both pictures and text in the print ad, so it is logical to assume that subjects' transportation to the print ad might be influenced by the combination of pictures and text. Since pictures and words transport individuals in different ways, future research should clarify the impact of pictures and words on the transportation to print ads respectively. Therefore, we can add conditions in which subjects read print ads only with pictures or words in future studies.

The final concern of research limitation is about the transportation scale. Such a scale was originally created to measure individuals' transportation to print narratives (Green & Brock, 2000). Thus, some items only make sense in reading situation. For example, the item "While I was reading/watching the narrative, I could easily picture the events in it taking place" can be easily understood when people read a narrative in print, because they have to image the story in their mind. However, when watching a

narrative on screen, all the events in the story are exhibited directly in front of the audiences, and they don't have to use their imagination. Therefore, such an item is confusing when measuring people's transportation into video narratives. We also conducted an ANOVA on each item in the scale with media sequence (print-video, video-print, print-print, and video-video) as the independent variable. We detected significant main effects on only four items: "I could picture myself in the scene of the events described in the narrative," ( $F(3, 86) = 3.44, p < .05$ ), "I was mentally involved in the narrative while reading/watching it," ( $F(3, 86) = 10.08, p < .05$ ), "I found my mind wandering while reading/watching the narrative," ( $F(3, 86) = 5.73, p < .05$ ), and "When I read or watched the story, the vivid images of those old men came into my mind," ( $F(3, 86) = 3.63, p < .05$ ). Accordingly, these four items played leading roles in the process that media sequence influenced transportation. Therefore, the transportation scale adopted in this research might not be an effective one to examine the impact of different media on transportation. Future research in this field should find a more effective way to measure transportation, like modifying the transportation scale or adopting physiopsychological methods.

### **Conclusion**

This research investigates the media sequence effect on the effectiveness of narrative advertising. Previous research exploring media in narrative advertising focused on the effect of media context (Wang & Calder, 2006; Chang, 2009b). So far, there has not been any research concerning the impact of media per se on transportation to narrative advertising. The current study fills in this gap by not only detecting that video could make individuals more transported into narrative ads than print, but also confirming that the media sequence of print-video could induce the most

transportation into narrative ads. Furthermore, we believe such a result from academic research has great value to be applied into media planning in the real life advertising industry. In particular, campaigns of narrative advertising would be more effective if consumers are exposed to the print narrative ads first and later watch the video version of the same ads. In addition, the current research also informs us some directions of future studies in this field, like considering more types of media, especially the Internet, examining the relevancy between advertising stories and brand/product advertised, making lab experiments more close to commercial watching situations in real life, and searching for a more effective way to measure transportation. Moreover, the current research tested the impact of media sequence on transportation and on behavioral intention respectively. Future research could investigate the relation between transportation and behavioral intention, to see whether individuals' behavior change is associated with their experience of transportation.

APPENDIX A  
TRANSPORTATION SCALE

1. While I was reading/watching the narrative, I could easily picture the events in it taking place.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

2. While I was reading/watching the narrative, activity going on in the room around me was on my mind.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

3. I could picture myself in the scene of the events described in the narrative.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

4. I was mentally involved in the narrative while reading/watching it.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

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

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

6. I wanted to learn how the narrative ended.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

7. The narrative affected me emotionally.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

8. I found myself thinking of ways the narrative could have turned out differently.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

9. I found my mind wandering while reading/watching the narrative.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

10. The events in the narrative are relevant to my everyday life.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

11. The events in the narrative have changed my life.

Strongly disagree \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Strongly agree

12. When I read or watched the story, the vivid images of those old men came into my mind.

Strongly disagree \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ Strongly agree

APPENDIX B  
AD ATTITUDE SCALE

What do you think of this ad?

1. bad \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ good
2. negative \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ positive
3. unfavorable \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ favorable
4. dislike \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ like
5. unpleasant \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ pleasant
6. uninformative \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ informative

APPENDIX C  
BRAND ATTITUDE SCALE

What do you think of the brand (Ta Chong Bank)?

1. bad \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ good
2. unpleasant \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ pleasant
3. unfavorable \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ favorable
4. negative \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ positive
5. unappealing \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ appealing

APPENDIX D  
BEHAVIORAL INTENTION SCALE

1. I am more likely to remember the brand name after seeing the ad.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

2. I would recommend this bank to my friends who are interested in bank service.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

3. I am more likely to try the bank service after seeing the ad.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

4. I am more likely to use a free trial of this service after seeing this ad.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

5. I am more likely to request additional information of the service after seeing  
this ad.

Strongly disagree \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ : \_\_\_\_ Strongly agree

## LIST OF REFERENCES

- Al Bawaba. (2010). Cross-media ad campaigns, commercialization of social networks and interactive online ads top trends for 2010. (2010, Jun 02). *Al Bawaba*. Retrieved from <http://search.proquest.com/docview/356811134?accountid=10920>
- Allen, C., Kania, D., & Yaeckel, B. (1998). *Internet world: Guide to One-to-one web marketing*. New York: Wiley.
- Baddeley, A. (1992). Working memory. *Science*, 255, 556-559.
- Baron, R. S., Baron, P. H., & Miller, N. (1973). The relation between distraction and persuasion. *Psychological Bulletin*, 80, 310-323.
- Batra, R., & Ray, M. (1985). How advertising works at contact. In L. Alwitt & A. Mitchell (Eds.), *Psychological processes and advertising effects: Theory, research and applications* (pp. 13-43). Hillsdale, NJ: Lawrence Erlbaum.
- Beatty, S. E., & Smith, S. M. (1987). External search effort: An investigation across several product categories. *Journal of Consumer Research*, 14, 83-95.
- Blackwell, P. M. (1995). *EQS: Structural equations [program manual]*. Encino, CA: Multivariate Software.
- Boulton, M. (1975). *The anatomy of the novel*. London: Routledge & Kegan Paul.
- Bower, G. H. (1972). *Cognition in Learning Memory*. New York: Wiley.
- Brewer, W. F. (1996). The nature of narrative suspense and the problem of rereading. In P. Vorderer, H. J. Wulff, & M. Friedrichsen (Eds.), *Suspense: Conceptualizations, theoretical analyses, and empirical explorations* (pp. 107-127). Mahwah, NJ: Erlbaum.
- Brock, T. C., Albert, S. M., & Becker, L. A. (1970). Familiarity, utility, and supportiveness as determinants of information receptivity. *Journal of Personality and Social Psychology*, 14, 292-301.
- Bronner, A. E. (2006). *Cross-media synergy in advertising campaigns*. Amsterdam: SWOCC.
- Bronner, A.E., Neijens, P.C., & Van Raaij, W.F. (2003). Multimedia campaigns: popular but hardly studied. In A.E. Bronner (Ed), *Developments in market research* (pp. 25-38). Haarlem: De Vrieseborch.
- Buchholz, L. M., & Smith, R.E. (1991). The role of consumer involvement in determining cognitive response to broadcast advertising. *Journal of Advertising*, 20, 4-17.

- Carver, M. E. (1935). Listening versus reading. In H. Cantril & G. W. Allport (Eds), *The psychology of radio*. New York: Harper.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality & Social Psychology*, 39, 752-766.
- Chaiken, S., & Eagly, A. (1976). Communication modality as a determinant of message persuasiveness and message comprehensibility. *Journal of Personality and Social Psychology*. 34. 605-614.
- Chaiken, S., & Eagly, A. H. (1983). Communication modality as a determinant of persuasion: The role of communicator salience. *Journal of Personality and Social Psychology*, 45(2), 241-256.
- Chang, C. C. (2009a). Repetition variation strategies for narrative advertising. *Journal of Advertising*, 38(3), 51-65.
- Chang, C. C. (2009b). "Being hooked" by editorial content: Implications for processing narrative advertising. *Journal of Advertising*, 38(1), 21-33.
- Chang, Y., & Thorson, E. (2004). Television and web advertising synergies. *Journal of Advertising*, 33(2), 75-84.
- Dal Cin, S., Zanna, M. P., & Fong, G. T. (2004). Narrative persuasion and overcoming resistance. In E. S. Knowles & J. A. Linn (Eds.), *Resistance and persuasion* (pp. 175-191). Mahwah, NJ: Erlbaum.
- Darby, I. (2007). Are cross-media solutions providing the right answers? Campaign, , 14-14. Retrieved from <http://search.proquest.com/docview/227448405?accountid=10920>
- De Beaugrande, R., & Colby, B. N. (1979). Narrative models of action and interaction. *Cognitive Science*, 3, 43-66.
- Dijkstra, M. (2002). *An experimental investigation of synergy effects in multiple-media advertising campaigns* (Doctoral dissertation, University of Tilburg, Netherlands).
- Dijkstra, M., Buijtels, H. E., & van Raaij, W. F. (2005). Separate and joined effects of medium type on consumer responses: A comparison of television, print, and the Internet. *Journal of Business Research*, 58, 377-386.
- Durkin, S., & Wakefield, M. (2008). Interrupting a narrative transportation experience: Program placement effects on responses to antismoking advertising. *Journal of Health Communication: International Perspectives*, 13(7), 667-680.

- Edell, J. A. (1988). Nonverbal effects in ads: a review and synthesis. In S. Hecker & D. W. Stewart (Eds.), *Nonverbal communication in advertising* (pp. 11-27). New York: Lexington Books.
- Edell, J. A., & Keller, K. L. (1989). The information processing of coordinated media campaigns. *Journal of Marketing Research*, 26, 149-163.
- Edell, J. A., & Keller, K. L. (1999). *Analyzing media interactions: The effects of coordinated TV-print advertising campaigns*. Cambridge, MA: Marketing Science Institute.
- Ephron, E. (2000). A new media-mix strategy. *Advertising Age*, 71(9), 10-12.
- Escalas, J. E. (2004). Imagine yourself in the product: Mental simulation, narrative transportation, and persuasion. *Journal of Advertising*, 33(2), 37-48.
- Escalas, J. E., Moore, M. C., & Britton, J. E. (2004). Fishing for feelings? Hooking viewers helps! *Journal of Consumer Psychology*, 14 (1/2), 105-114.
- Fiske, S. T. (1993). Social cognition and social perception. *Annual Review of Psychology*, 44, 155-194.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition (2nd ed.)*. New York: McGraw-Hill.
- Gerrig, R. J. (1989). Reexperiencing fiction and nonfiction. *Journal of Aesthetics and Art Criticism*, 47, 277-280.
- Gerrig, R. J. (1993). *Experiencing narrative worlds*. New Haven, CT: Yale University Press.
- Grass, R. C., & Wallace, W. (1969). Satiation effects of TV Commercials. *Journal of Advertising Research*, 9(3), 3-8.
- Green, M. C. (1996). *Mechanisms of narrative-based belief change* (Unpublished master's thesis). Ohio State University, Columbus, OH.
- Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*, 79(5), 701-721.
- Green, M. C. (2004). Transportation into narrative worlds: The role of prior knowledge and perceived realism. *Discourse Processes*, 38(2), 247-266.
- Green, M. C., Kass, S., Carrey, J., Herzig, B., Feeney, R., & Sabini, J. (2008). Transportation across media: Repeated exposure to print and film. *Media Psychology*, 11, 512-539.

- Greenfield, P. M. (1984). *Mind and media: The effects of television, video games, and computers*. Cambridge, MA: Harvard University Press.
- Gotlieb, J. B., & Sarel, D. (1991). Comparative advertising effectiveness: The role of involvement and source credibility. *Journal of Advertising, 20*, 38-45
- Haaland, G. A., & Wenkatesan, M. (1968). Resistance to persuasive communications: An examination of the distraction hypothesis. *Journal of Personality and Social Psychology, 9*, 167-170.
- Harkins, S. G., & Petty, R. E. (1981a). Effects of source magnification of cognitive effort on attitudes: An information-processing view. *Journal of Personality and Social Psychology, 40*(3), 401-413.
- Harkins, S. G., & Petty, R. E. (1981b). The multiple source effect in persuasion: The effects of distraction. *Personality and Social Psychology Bulletin, 7*(4), 637-635.
- Harkins, S. G., & Petty, R. E. (1987). Information utility and the multiple source effect. *Journal of Personality and Social Psychology, 52*(2), 260-268.
- Haugtvedt, C.P., & Wegener, D.T. (1994). Message order effects in persuasion: An attitude strength perspective. *The Journal of Consumer Research, 21*, 205-218.
- Havlena, W., Cardarelli, R., & De Montigny, M. (2007). Quantifying the isolated and synergistic effects of exposure frequency for TV, print, and internet advertising. *Journal of Advertising Research, 47*, 215-221.
- Havlena, W., Kalluf, A., & Cardarelli., R. (2008). *Building cross-media norms: Optimizing communication channels against marketing objectives*. Paper presented at the Esomar, World Wide Media Measurement (WM3), Budapest.
- Hayes, D. S. (1986). Media differences in children's story synopses: Radio and television contrasted. *Journal of Educational Psychology, 78*(5), 341-346.
- Hayes, D. S., Kelly, S. B., & Mandel, M. (1986). Media differences in children's story synopses: Radio and television contrasted. *Journal of Educational Psychology, 78*(5), 341-46.
- Hovland, C. I. (1954). The effects of mass media of communication. In G. Lindzey (Ed.), *Handbook of social psychology*. Cambridge, Mass.: Addison-Wesley,.
- Hovland, C. I., Campbell, E. H., & Brock, T. C. (1957). The Effects of "commitment" on opinion change following communication. In C. I. Hovland (Ed.), *The order of presentation in persuasion* (pp. 23-32). New Haven, CT: Yale University Press.

- Insko, C. A., Turnbull, W., & Yandell, B. (1974). Facilitative and inhibiting effects of distraction on attitude change. *Sociometry*, 37, 508-528.
- Jacoby, J., Hoyer, W. D., & Zimmer, M. R. (1983). To read, view, or listen? A cross-media comparison of comprehension. *Current Issues and Research in Advertising*, 6(1), 201-217.
- Kintsch, W. (1980). Learning from text, levels of comprehension, or: why anyone would read a story anyway. *Poetics*, 9, 87-98.
- Kirmani, A. (1997). Advertising repetition as a signal of quality: If it's advertised so much, something must be wrong. *Journal of Advertising*, 26(3), 77-86.
- Krugman, H. E. (1965). The impact of television advertising: Learning without involvement. *Public Opinion Quarterly*, 29, 349-356.
- Lana, R. E. (1961). Familiarity and the order of presentation of persuasive communications. *Journal of Abnormal and Social Psychology*, 62, 573-577.
- Lana, R. E. (1963a). Controversy of the topic and the order of presentation of persuasive communications. *Psychological Reports*, 12, 163-170.
- Lana, R. E. (1963b). Interest, media, and order effects in persuasive communications. *Journal of Psychology*, 56, 9-13.
- Levy, S., & Nebenzahl, I.D. (2008). The influence of product involvement on consumers' interactive processes in interactive television. *Marketing Letters*, 19, 65-77.
- Liu, Y., & Shrum, L. J. (2009). A dual-process model of interactivity effects. *Journal of Advertising*, 38, 53-68.
- Liu, S. S., & Stout, P. A. (1987). Effects of message modality and appeal on advertising acceptance. *Psychology & Marketing*, 4(3), 167-187.
- Loda, M. D., & Coleman, B.C. (2005). Sequence matters: A more effective way to use advertising and publicity. *Journal of Advertising Research*, 45, 362 -372.
- Marketing Week. (2006). Cross-media advertising: A multi-platform connection. *Marketing Week*, , 32-33. Retrieved from <http://search.proquest.com/docview/228205276?accountid=10920>
- McGinnies, E. (1965). A cross-cultural comparison of printed communication versus spoken communication in persuasion. *Journal of Psychology*, 60, 1-8.
- McCullough, J. L., & Ostrom, T. M. (1974). Repetition of highly similar messages and attitude change. *Journal of Applied Psychology*, 59(3), 395-397.

- Moreno, R. (2006). Does the modality principle hold for different media? A test of the method-affects-learning hypothesis. *Journal of Computer Assisted Learning*, 22, 149–158.
- Naik, P., & Raman, K. (2003). Understanding the impact of synergy in cross-media communications. *Journal of Marketing Research*, 40, 375-388.
- Ortony, A., Clore, G. L., & Collins, A. (1988). *The cognitive structure of emotions*. Cambridge, UK: Cambridge University Press.
- Perse, E. (1988). *A conceptualization and test of media involvement*. Paper presented at the Annual Conference of the International Communication Association (ICA), New Orleans, LA.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: SpringerVerlag.
- Petty, R. E., & Cacioppo, J. T. (1996a). *Attitude and persuasion: Classic and contemporary approaches*. Boulder: Westview Press.
- Pezdek, K., Lehrer, A., & Simon, S. (1984). The relationship between reading and cognitive processing of television and radio. *Child Development*, 55, 2072-2082.
- Putrevu, S., & Lord, K. R. (2003). Processing internet communications: A motivation, opportunity, and ability framework. *Journal of Current Issues and Research in Advertising*, 25(1), 46.
- Roser, C. (1990). Involvement, attention, and perceptions of message relevance in the response to persuasive appeals. *Communication Research*, 17(5), pp. 571-600.
- Rossiter, J. R., & Bellman, S. (1999). A proposed model for explaining and measuring web ad effectiveness. *Journal of Current Issues and Research in Advertising*, 21, 13-31.
- Salmon, C. T. (1986). Perspectives on involvement in consumer and communication research. In B. Dervin & M. J. Voigt (Eds.), *Progress in Communication Sciences* (vol. 7, pp. 243-268). Norwood, NJ: Ablex.
- Salomon, G. (1970). What does it do to Johnny? A cognitive-functionalistic view of research on media. In G. Salomon & R. E. Snow (Eds.), *Viewpoints* (pp. 33-62). Bulletin of the School of Education, Indiana University.
- Schachter, S. (1964). The interaction of cognitive and physiological determinants of emotional state. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 49-80). New York: Academic Press.

- Schank, R. C., & Abelson, R. P. (1995). Knowledge and memory: The real story. In S. W. Robert, Jr. (Ed.), *Knowledge and memory: The real story* (pp.1-85). Hillsdale, NJ: Lawrence Erlbaum.
- Schank, R. C., & Berman, T. R. (2002). The persuasive role of stories in knowledge and action. In M. C. Green, J. J. Strange, & T. C. Brock (Eds.), *Narrative impact: social and cognitive foundations* (pp. 287-313). Mahwah, NJ: Lawrence Erlbaum.
- Shepard, R. N. (1967). Recognition memory for words, sentences, and pictures. *Journal of Verbal Learning and Verbal Behavior*, 6, 156-163.
- Sherif, C. W., Kelley, M., Rodgers, H., Sarup, G., & Tittler, B. (1973). Personal involvement, social judgment and action. *Journal of Personality and Social Psychology*, 27, 311-328.
- Sherif, M., & Hovland, C. (1961). *Social judgment*. New Haven, Conn.: Yale University Press.
- Singer, J. L. (1980). The powers and limitations of television. In P. H. Tannenbaum (Ed.), *The entertainment functions of television* (pp. 31–66). Hillsdale, NJ: Erlbaum.
- Salomon, G. (1984). Television is “easy” and print is “tough”: The differential investment of mental effort in learning as a function of perceptions and attributions. *Journal of Educational Psychology*, 76(4), 647-658.
- Tannenbaum, P. H., & Kerrick, J. S. (1954). Effect of newscast item leads upon listener interpretation. *Journalism Quarterly*, 31, 33-37.
- Tannenbaum, P. H. (1985). “Play it again, Sam”: Repeated exposure to television programs. In D. Zillmann & J. Bryant (Eds.), *Selective exposure to communication* (pp. 225-241). Hillsdale, NJ: Erlbaum.
- Taylor, S. E., & Schneider, S. (1989). Coping and the simulation of events. *Social Cognition*, 7(2), 174-194.
- Tulving, E., & Thomson, D. M. (1973). Encoding specificity and retrieval processes in episodic memory. *Psychological Review*, 80, 352 -373.
- Unnava, H., & Burnkrant, R. (1991). Effects of repeating varied executions on brand name memory. *Journal of Marketing Research*, 28, 406 -416.
- Van Raaij, W. F. (1998). Interactive communication: consumer power and initiative. *Journal of Marketing Communication*, 4, 1-8.

- Vaughn, L. A., Petkova, Z., Trudeau, L., Hesse, S., McCaffrey, N., Candeloro, L., et al. (2007). *Processing fluency and narrative transportation: Effects of accessibility and regulatory fit*. Presented at the Society for Personality and Social Psychology, Memphis, TN.
- Volk, F., & Kraft, F. B. (2005). Consumers: The theoretical foundations on online behavior. In R. W. Proctor & K. P. L. Vu (Eds.), *Handbook of human factors in web design* (pp. 595-612). London: Routledge.
- Voorveld, H. A. M., Neijens, P. C., & Smit, E. G. (2011). Opening the black box: Understanding cross-media effects. *Journal of Marketing Communications, 17*(2), 69-85.
- Voorveld, H. A. M., Neijens, P. C., & Smit, E. G. (2012). The interacting role of media sequence and product involvement in cross-media campaigns. *Journal of Marketing Communication, 18*(3), 203-216.
- Vorderer, P. (1993). Audience involvement and program loyalty. *Poetics, 22*, 89-98.
- Walton, K. L. (1978). Fearing fictions. *Journal of Philosophy, 75*, 5-27.
- Wang, S. L. A., & Nelson, R. A. (2006). The effects of identical versus varied advertising and publicity messages on consumer response. *Journal of Marketing Communications, 12*, 109-123.
- Werner, C. (1978). Intrusiveness and persuasive impact of three communication media. *Journal of Applied Social Psychology, 8*, 145-162.
- Werner, C., & Latane, B. (1976). Responsiveness and communication medium in dyadic interactions. *Bulletin of the Psychonomic Society, 8*, 13-15.
- Wilke, W. H. (1935). *An experimental comparison of the speech, the radio, and the printed page as propaganda devices*. Columbia University. ProQuest Dissertations and Theses, 1. Retrieved from <http://search.proquest.com/docview/301790423?accountid=10920>. (301790423).
- Wirth, W. (2006). Involvement. In J. Bryant & P. Vorderer (Eds.), *Psychology of entertainment* (pp. 199-213). Mahwah, NJ: Lawrence Erlbaum Associates.
- Wirth, W., Hartmann, T., Bocking, S., Vorderer, P., Klimmt, C., Schramm, H., et al. (2007). A process model of the formation of spatial presence experiences. *Media Psychology, 9*, 493-525.
- Wyer, R. S., Jr., Adaval, R., & Colcombe, S. J. (2002). Narrative-based representations of social knowledge: Their construction and use in comprehension, memory and

- judgment. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 131-197). San Diego: Academic Press.
- Wyer, R. S., Jr., & Radvansky, G. A. (1999). The comprehension and validation of social information. *Psychological Review*, *106*(1), 89-118.
- Yoo, C.Y., & Stout, P. A. (2001). *Factors affecting users' interactivity with the website and the consequences of users' interactivity*. Paper presented at the conference of the American Academy of Advertising, Villanova.
- Zajonc, R. B. (1980). Feeling and thinking preferences need no inferences. *American Psychologist*, *35*, 151-175.
- Zheng, L. (2010). *The impact of narrative focus, vividness of product depiction, mental imagery ability, and need for cognition on transportation in narrative advertising* (Unpublished doctoral dissertation). University of Alabama, Tuscaloosa, AL.
- Zheng, L., & Phelps, J. E. (2011a). *Exploring individual moderators of the transportation-imagery model in narrative advertising*. Abstract in Proceedings of the 2011 Conference of the American Academy of Advertising, Steven M. Edwards (ed.), Southern Methodist University: Dallas, TX, 85.
- Zheng, L., & Phelps, J. E. (2011b). *Revising the transportation-imagery model and expanding understanding of persuasion via narrative advertising*. Abstract in Proceedings of the 2011 Conference of the American Academy of Advertising, Steven M. Edwards (ed.), Southern Methodist University: Dallas, TX, 80.

## BIOGRAPHICAL SKETCH

Linwan Wu enrolled in the master's program in the Advertising Department at the University of Florida after completing his BA in advertising at the Huazhong University of Science and Technology. During his study in the master's program, he was glad to work with Dr. Lu Zheng, and developed an interest in Dr. Zheng's research area: transportation in narrative advertising, which eventually led him to the study he conducted.

After graduating from the master's program in the Advertising Department at the University of Florida, Linwan plans to continue his Ph.D. study in the United States, and keeps doing research in the mass communication field.