

AMERICAN AND CHINESE THINKING STYLES: ATTITUDE EFFECTS ON HOLISTIC AND ATTRIBUTE ADS

Beichen Liang*

East Tennessee State University

Joseph Cherian

Saint Xavier University

Abstract. *American (i.e., Western) thinking favors the analytic style, focusing on the focal object and internal attributes; Chinese (i.e., Eastern) thinking favors the holistic style, paying attention to the context and whole system. This research investigates whether such holistic and analytic thinking styles affect attitudes towards holistic ads which contain many types of information (availability, price, company, etc.) and attribute ads which contain only one type of information (product feature). The first study showed that (i) American consumers prefer attribute ads more than Chinese consumers do; (ii) both American and Chinese consumers prefer holistic ads more than attribute ads; and both prefer the holistic ads equally well. The second study showed that the impact of cultural differences in thinking styles on ad attitudes were not influenced by thinking speed – whether the thinking was fast and automatic or whether the thinking was slow and effortful. The stable and verifiable managerial implication is that ad content in the East and West, in the US and China must include more, diverse information.*

Key words: *ad information, analytic thinking, holistic thinking, culture, ad attitudes*

1. Introduction

The type of ad information has a strong impact on consumer responses to ads, firms and brands (Abernethy & Franks, 1996). Consumers use information to make better purchase decisions even if they do not plan to make a purchase soon after seeing the ad (Schmidt & Spreng, 1996). Ever since Resnik & Stern (1977) classified ad information into 14 information categories, many scholars have compared information content between Eastern and U.S. advertisements. However, almost all studies were based on content analysis. In the advertising context, content analysis has been criticized as

* Corresponding author: Department of Management and Marketing, East Tennessee State University, PO BOX 70625, ETSU, Johnson City TN 37614, tel: 423-439-6985, fax: 423-439-5661, e-mail: liangb@etsu.edu

being able to play only a small role in theory building and marketing practice because the content analysis can only show what the ad content is rather than how it influences consumer attitudes (Kover, 2001; Lerman & Callow, 2004). Therefore, we know little about how advertisements (with different information content) influence consumer attitudes (e.g., an ad with multiple types of information versus an ad with product attribute information only). International advertising scholars should use more experiments and less content analysis (Garrett & Iyer, 2013) in order to understand the persuasiveness of advertisement.

Scholars argue – and empirical studies have documented – that advertising whose appeals are congruent with cultural orientations should be more persuasive (An, 2013; Daechun, 2007; Glenn et al., 1977; Han & Shavitt, 1994). According to Nisbett et al. (2001), Eastern Asians and Westerners have different thinking styles. Eastern thinking style is holistic in that attention is directed to elements and to relationships among elements; the Westerners' thinking style is analytic thinking in that attention is directed to the internal attributes but ignoring the surrounding context. Therefore, Eastern Asians and Westerners may have different attitudes toward advertisements that contain different types of information. Recent studies have found that analytic and holistic thinking styles can influence consumers' evaluations of brand association (Ng & Houston, 2006), brand extension (Monga & John, 2007; 2010), spatial judgment (Krishna et al., 2008), and evaluations of products in different displays (Zhu & Meyers-Levy, 2009). However, cross-cultural advertising scholars have relied too much on Hofstede's cultural dimensions (Okazaki & Mueller, 2007) and analytic versus holistic thinking has not received enough attention in advertising (Okazaki et al., 2013). Therefore, in this paper, we apply the analytic and holistic thinking style differences to advertising to investigate whether people with different thinking styles would generate different attitudes toward advertisements that contain different types of information.

2. Theoretical background

Analytic and Holistic Thinking Styles

Scholars in many disciplines have found that people in East Asian cultures (e.g., Chinese, Japanese, and Korean) have a relatively holistic thinking style whereas people in Western cultures (e.g., Americans) have an analytic one (Choi et al., 1999; Nisbett et al. 2001; Peng & Nisbett, 1999). The holistic thinking style is one “involving an orientation to the context or field as a whole, including attention to relationship between a focal object and field, and a preference for explaining and predicting events on the basis of such relationships” (Nisbett et al., 2001, p. 293). The analytic thinking style is one “involving detachment of the (focal) object from its context, a tendency to focus on attributes of the object in order to assign it to categories, and a preference for using rules about the categories to explain and predict the object's behavior” (Nisbett et al., 2001, p. 293).

Since ancient times, East Asians have viewed the world as “a collection of overlapping and interpenetrating stuffs or substances” (Hansen, 1983, p. 30); because they saw the world as “interpenetrate[d] and continuous, their attempts to understand it caused them to be oriented toward the complexities of the perceptual or conceptual field taken as a whole” (Moore, 1968, p. 3). Eastern Asians think that they are only one part of a large and complicated world with many role relations; thus, they tend to direct their attention outside themselves and toward the whole social environment (Nisbett et al., 2001). East Asians believe that, within a whole system, everything is related to everything else to some extent. Therefore, it is not the part but the whole that exists. Parts only exist within the whole in which they are embedded (Munro, 1985). Parts are linked together, like “the ropes in a net” (Munro, 1985). Therefore, it is necessary to consider more important or even possible elements in the whole, more relations among objects, and more relations between parts and the whole (Nisbett et al., 2001). Furthermore, according to Hall (1977), fewer ‘bits’ of information are contained in the communications within a high-context culture, so East Asians must pay more attention to the context to extract meaning. In the East Asian context, a ‘yes’ response may have many different meanings, depending on the context; it could mean ‘I don’t want to embarrass you,’ ‘I don’t want to embarrass me,’ ‘no,’ ‘maybe,’ and even ‘yes.’ As a result, East Asians use a broad range of factors to explain phenomena, pay more attention to the whole context, and pay little attention to internal attributes and details (Ji et al., 2001; Krishan et al., 2008; Nisbett et al., 2001).

In contrast, people from Western cultures tend to see the world as a collection of discrete objects (Nisbett et al., 2001). Rooted in the thinking of ancient Greeks, Western people view the world as composed of “objects which are understood as individuals or particulars which instantiate or ‘have’ properties” (Hansen, 1983, p. 30). It is important to separate the object from its context to infer category membership of the object from its properties. Moreover, messages are explicit and specific in a low context culture, so Westerners pay little attention to context (Hall, 1977). Therefore, Westerners pay more attention to the internal attributes and details and less attention to the surrounding contexts.

Culture and Advertising Information

In order to measure the information content of television advertising, Resnik and Stern (1977) developed some information classification criteria. These criteria contain 14 information categories such as price/value, quality, performance, component/content, availability, taste, nutrition, packaging/shape, guarantees/warranties, etc. Since Resnik & Stern (1977) classified ad information into 14 information categories, a lot of scholars have compared the information content of advertising between Eastern and Western cultures. Almost all studies utilized the information classification criteria developed by Resnik and Stern (1977) and were based on content analysis. Although Madden et al. (1986), Rice and Lu (1988), Keown et al. (1992), Hong et al. (1987), Lin and Salwen

(1995), Ha (1998), and Tai and Chan (2001) found that ads in East Asian cultures contained more information than those in Western cultures, Lin (1993), Keown et al. (1992), and Ramaprasad and Hasegawa (1992) found the reverse results. Therefore, the findings based on content analysis are quite mixed. Taylor, Miracle and Wilson (1997) conducted an experiment and found that U.S. participants generated more favorable attitudes toward commercials with high information levels (at least three information cues) than did the Korean counterparts but there was no significant difference for Koreans between high and low information levels. Since only one study investigating the differences in information content between Eastern and Western cultures is based on experiment, the findings contribute little to how ad information content influences consumer attitudes toward the ad and brand.

3. Hypotheses Development

Scholars argue and much empirical evidence has shown that ad appeals congruent with thinking styles should be more persuasive and evoke more favorable attitudes compared to ads incongruent with thinking styles (An, 2013; Daechun, 2007; Glenn et al., 1977). For Chinese, it is not the part but the whole that exists; they look at everything “in its totality, not in parts” (Moore, 1968, p. 3). Thus, even when exposed to ads with only product attribute information (i.e., attribute ads), Chinese continue to think holistically to fill-in additional factors not provided in such ads, such as price and availability; this is because, in this thinking style, failing to consider a factor—even a minor factor – is assumed to result in a bad judgment or purchasing decision. For Chinese, although product attribute information is considered important, in isolation such information is considered far from enough to support evaluation, judgment, or decision making. Therefore, Chinese generate less favorable attitudes toward attribute ads because of the effort required to construct a holistic picture.

Because Americans tend to think analytically (Nisbett et al., 2001), they pay more attention to product attribute information. For them, product attribute information is the predominant factor influencing their evaluation, judgment, and purchase decision. Thinking about attributes in isolation is quite normal in this thinking style because of a focus on the analytic particulars, not the holistic totality. Therefore, when exposed to attribute ads, Americans feel no need to broaden their thinking to fill-in holistic factors as their Chinese counterparts do; they think narrowly and deeply as per their cultural thinking style and habit. Studies also show that American analytic thinking is quite stable across different situations (Choi & Nisbett, 1998). Americans tend to think analytically even when the situational factors are made more salient (Abel & Hsu, 1949; Ji et al., 2000; Masuda & Nisbett, 2001; Park et al., 1999), so even when exposed to ads with holistic information (e.g., ads with many types of information including product attributes, price, availability, and company characteristics), analytic thinkers will pay the most attention to attribute information and treat the information not related to the attribute as ignorable noise. This discussion leads to the following hypotheses.

H1a: Chinese will generate more favorable attitudes toward holistic ads than Americans.

H1b: Chinese will generate more favorable attitudes toward holistic ads than toward attribute ads.

H2: Americans will generate more favorable attitude toward attribute ads than toward holistic ads.

4. Pilot Study

In order to manipulate information content in our stimuli, we conducted a pilot study. Resnik & Stern (1977) classified the ad information into 14 different categories like quality, performance, components/content, and availability. But, product attributes are not part of their classification. Resnik & Stern (1977) defined quality as product's characteristics that distinguish it from competing products based on objective evaluations of workmanship, engineering, durability, excellence of materials, structural superiority, superiority of personnel, attention to detail, or special services. However, in the pilot study, 23 Caucasian American students and 16 Chinese students in a public university in the southeastern U.S. were asked to define quality. Both American and Chinese participants perceived quality as "how well a product performs," "how long it lasts," or "how well a product is made." Moreover, almost all students (both Americans and the Chinese) defined product attributes as what makes a product unique or different from other products. According to Merriam-Webster, an attribute is defined as "an inherent characteristic." Therefore, quality, performance, and components/contents were combined and referred to as attributes in our study. We also asked another 14 Caucasian American students and 14 Chinese students in a public university in the southeastern U.S. to list the attributes of the digital camera. Resolution, screen, and zoom were among the top five listed features for both the Americans and the Chinese and only one student listed price as an attribute. Since price is not an 'inherent characteristic', it was not included in a list of attributes. Moreover, the feature called vibration reduction (VR) was presented in the real ad on which the study was based, in addition to features like resolution, screen size, and zoom. Therefore, product attribute information such as VR, 8.1 megapixel, bright 2.5 inch LCD, and 3.5X optical zoom were listed as the major attribute information in our study. Furthermore, ads for digital cameras in magazines and on the internet typically highlight these key attributes.

5. Study 1

Overview

The purpose of Study 1 is to test how different thinking styles affect consumers' attitudes toward different ads. To assess the stated hypotheses, the study employed a 2 (culture: Chinese/Eastern vs. American/Western) x 2 (ad: attribute vs. holistic ad) between-subjects factorial design.

To induce thinking, as opposed to automatic or shallow processing, it is important to select products that are of high involvement. According to the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1979), in high involvement situations (high relevance or risk), people are motivated to engage in diligent deliberation of attribute-relevant information (e.g., arguments) in the ad. In contrast, when viewers lack sufficient motivation (because of low relevance or risk) or ability (because of personal traits or external interference), persuasion follows a peripheral route by which people base their attitude and evaluation on attribute-irrelevant information and peripheral cues (e.g., a picture's attractiveness, source characteristics, and music). Thus, neither holistic nor analytic thinking styles toward ad copy would be activated in low involvement situations because the viewers would focus most of their attention on the peripheral cues (e.g., pictures) and little or no attention on product arguments. In contrast, in a high involvement situation, people engage in diligent deliberation of the attribute-relevant information (e.g., arguments) in the ad. In this sense, this paper is based only on high involvement situations. Research has revealed that ELM (Petty & Cacioppo, 1986) is robust across cultures, and both the Chinese and Americans – in a high involvement context – pay careful attention to product arguments (Aaker & Maheswaran, 1997). Given similar levels of familiarity and knowledge with the category, it is quite unlikely that respondents from either culture would choose the peripheral route to processing ads.

Stimuli

A digital camera was used as the target product because both consumer groups are quite familiar with the category (87% of Chinese and 85% of Americans in this study owned one; $\chi^2 (df = 1, n = 118) = 0.067, p > .1$). A fictitious name (i.e., Classa) was used to minimize the effect of prior experience with established brands. Ad stimuli were adapted from a real ad in a magazine to increase the external validity.

Participants and Procedure

Forty Chinese students at a large university in southwestern China and forty American students at a university in the southeastern U.S. participated in this study. The Chinese participants received RMB¥5 (about US \$0.75) for their participation, whereas respondents in the U.S. participated in exchange for extra academic credit. Participants in the classroom were randomly assigned to either the attribute or holistic ad condition. Each cell contained about 20 students. All American students were Caucasian Americans born and raised in the U.S. The study procedures to increase involvement were adapted from those commonly used ever since they were reported in Aaker & Williams (1998) and Petty et al. (1983). Participants began the experiment by looking at the print advertisement in which the information content was manipulated. After the participants reviewed the materials at a self-directed pace, they completed a series

of questions related to attitudes toward the ad. Next, participants were asked to look at a picture of fish and other underwater objects adapted from stimuli used by Masuda & Nisbett (2001) and two distraction tasks were used to clear their memory. Finally, they were asked to recall the content in the picture and complete a series of ancillary questions.

Independent Variables

Cultural Orientation. Prior studies suggest that the Chinese tend to think holistically whereas Americans tend to think analytically (e.g., Abel & Hsu, 1949; Monga & John, 2007; Morris et al., 1995; Morris & Peng, 1994). Therefore, the country of testing was used as an appropriate proxy for culture and thinking styles.

Information Content. The attribute and holistic ads were manipulated by using different information cues in the ad. Abernethy and Franks (1996) conducted a meta-analysis of approximately 60 studies, analyzing the ad information content; they found that availability, price, components, performance, and quality are the most commonly used cues. However, Taylor et al. (1997) showed that the quantity of information cues can influence consumer responses toward ads (and brands). Therefore, we tried to keep information cues balanced in this study. The ad stimuli contained four pieces of information for both attribute and holistic ads. The attribute ad contained four pieces of attributes identified in the pilot study (VR, 8.1 megapixels, bright 2.5 inch LCD, and 3.5X optical zoom). Holistic ads contained one piece of attribute information (vibration reduction) and three pieces of holistic information: price, availability (e.g., available at Best Buy or all major department stores in Chinese stimuli), and company information (address, website, and telephone).

Dependent Variables

Attitude toward the ad was measured on a three seven-point items scale with end points of “bad” “not at all likable” and “unfavorable” (1) and “good” “likable” and “favorable” (7). Moreover, participants were asked to recall the information in the ad. Their recalls were classified by American and Chinese student judges into three groups: (1) product information (both holistic and attribute information); (2) brand; and (3) peripheral information (information in the ad picture). Inter-judge reliability for American and Chinese judges was 99% and 98%, respectively.

Results and Discussion

Manipulation Check. Both American and Chinese participants were asked to recall and list the contents in the picture of fish and other underwater objects adapted from stimuli used by Masuda & Nisbett (2001). Two American judges and two Chinese bilingual judges coded and counted the recalls of American and Chinese participants, respectively. Recalls were grouped into two categories: core objects (three big fish and

their locations in the picture) and peripheral objects (small fish, underwater grasses, a frog, a snail, bubbles, and their locations in the picture). Inter-judge reliability for American and Chinese judges was 94% and 93%, respectively. The number of recalled objects was subjected to a one-way ANOVA, with culture as an independent variable and core and peripheral objects as dependent variables. No significant difference emerged between Americans and the Chinese on the number of recalled core objects ($M_{\text{American}} = 2.93$, $M_{\text{Chinese}} = 3.08$; $F(1, 78) = 0.477$, $p > .1$). Chinese participants recalled more peripheral objects than Americans ($M_{\text{American}} = 2.78$, $M_{\text{Chinese}} = 3.53$; $F(1, 78) = 6.60$, $p < .05$). In keeping with prior practice (e.g., Nisbet et al., 2001) the significant difference was interpreted in this context to mean that the Chinese were more holistic thinkers than Americans.

Attitudes toward Ads. Using the procedure suggested by Steenkamp & Baumgartner (1998), the cross-cultural measurement invariance of the ad attitude scale was assessed for measurement invariance at the configural, metric, and scalar levels. The LISREL results showed that measurement invariance held at the configural ($\chi^2 = 0$, $p = 1.000$, $RMSEA = 0.000$), metric ($\Delta \chi^2(2) = 1.56$, $p = .459$), and scalar invariance ($\Delta \chi^2(5) = 4.3$, $p = .507$) levels. Therefore, the attitude measurement scale was invariant across culture. The mean of the attitude measurement scale ($\alpha = 0.876$) was subjected to a 2 (culture) x 2 (ad) ANOVA with participants' recall of product and peripheral information as covariates (see Table 1 for means and SDs). A significant main effect of ad ($F(1, 74) = 14.259$, $p < .01$), a marginally significant main effect of culture ($F(1, 74) = 3.431$, $p < .07$), and a marginally significant interaction ($F(1, 74) = 3.110$, $p < .09$; see Figure 1) emerged. However, covariates were not significant ($F_{\text{product}}(1, 74) = .258$, $p > .1$; $F_{\text{peripheral}}(1, 74) = 1.681$, $p > .1$). Therefore, both American and Chinese participants' processing and evaluation of ad was mainly based on product information, not on peripheral cues (e.g., pictures in the ad). Follow-up contrasts supported the idea that the Chinese generated more favorable attitudes toward the holistic ad than toward the attribute ad ($M_{\text{holistic ad}} = 4.80$, $M_{\text{attribute ad}} = 3.53$; $F(1, 38) = 12.963$, $p < .01$). H1b was supported. Americans generated marginally more favorable attitudes toward the holistic ad than the attribute ad ($M_{\text{holistic ad}} = 4.74$, $M_{\text{attribute ad}} = 4.26$; $F(1, 38) = 3.128$, $p < .09$). H2 was reversed. Americans generated more favorable attitudes toward the attribute ad than the Chinese ($M_{\text{Chinese}} = 3.53$, $M_{\text{American}} = 4.26$; $F(1, 37) = 5.171$, $p < .05$). For the holistic ad, there was no significant

TABLE 1. Study 1 Results: Means and Standard Deviations

Variables	American		Chinese	
	Attribute	Holistic	Attribute	Holistic
Ad Attitude	4.26 (0.84)	4.74(0.88)	3.53(1.14)	4.80(1.09)
n	19	21	20	20

NOTE – Standard deviations are in parentheses.

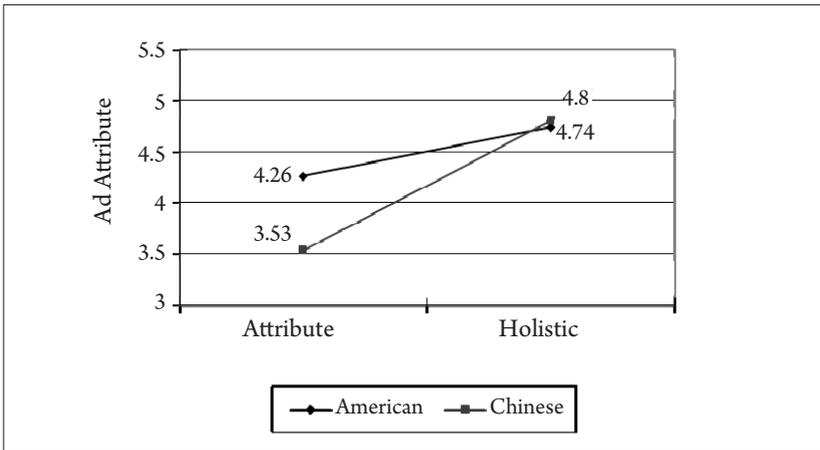


FIGURE 1. Study 1 Results: Culture X Ad Interaction for Ad Attitudes

difference between American and Chinese participants ($M_{\text{Chinese}} = 4.80$, $M_{\text{American}} = 4.74$; $F(1, 39) = 0.033$, $p > .1$). H1 was not supported.

As expected, Chinese participants generated more favorable attitudes toward holistic ads than toward attribute ads while Americans generated more favorable attitudes than the Chinese when exposed to attribute ads. However, in contrast to expectation, Americans generated more favorable attitudes toward the holistic ad than the attribute ad. Moreover, both Americans and the Chinese generated similar attitudes toward the holistic ad.

6. Study 2

Contrary to the hypothesis H2, Study 1 found that Americans generated more favorable attitudes toward the holistic ads than the attribute ad. This surprising finding may be the result of effortful cognitive elaboration. According to Kahneman (2003), evaluations and judgments are governed by two cognitive processes: an automatic and fast process versus a deliberate and slow process. When readers feel pressure to form a quick judgment, evaluations are controlled by a fast, automatic, and effortless process. As a result, readers form initial impressions based on their cultural knowledge, which is chronically accessible and commonly used (Briley & Aaker, 2006). In contrast, when they engage in an effortful process, readers allocate a large portion of their mental resources to process information in the ad. Fueled by ample mental resources, readers scrutinize presented arguments to determine the merits of the arguments. Therefore, readers evaluate both the pros and cons of the advertised product and prompt questioning, conduct critical assessment, and ensure “internal debate” (Tappan, 1997). As a result, people’s initial cultural orientation may be attenuated and corrected for by their effortful deliberation (Briley & Aaker 2006).

According to Briley & Aaker (2006), Chiu et al. (2000), Knowles et al. (2001), Krull (1993), and Liang (et al. 2011), cultural impacts on judgments are mitigated in slow and deliberate conditions (versus fast and automatic conditions). In short, the effect of culture is weaker or even disappears in slow and deliberate conditions. Therefore, this study is designed to examine whether people's attitudes toward attribute and holistic ads were moderated by effortful deliberation.

Design and Procedure

Seventy-nine Chinese students from a public university in southwestern China and eighty-four American students from a public university in the southeastern U.S. participated in this study. The Chinese participants received RMB¥5 (about US \$0.75) for their participation, whereas respondents in the U.S. participated in exchange for extra academic credit. The study utilized a 2 culture (China vs. U.S.) x 2 ad (holistic vs. attribute ad) x 2 speed (fast vs. slow) between subject factorial design.

The procedure was similar to Study 1, with a few notable differences. The time pressure manipulation was adapted from that used by Briley & Aaker (2006). Participants in the "low time pressure condition" were asked to read the ad carefully and form a clear evaluation within ninety seconds. Participants in the "high time pressure condition" were informed that they needed to read the ad, especially the ad arguments, to form a quick impression within thirty seconds (The pilot study had showed that all students finished reading the ad within 90 seconds in low time pressure condition or 30 seconds in high time pressure condition). After reading the ads, participants were asked to complete three seven-point items (1="bad" "not at all likable" and "unfavorable"; 7="good" "likable" and "favorable") to measure their attitude toward the ad. After participants completed an analytic-holistic manipulation check task and answered some ancillary questions, they were thanked and dismissed.

Results and Discussion

Manipulation Checks. Two American judges and two Chinese bilingual judges coded and counted the recalls of American and Chinese participants, respectively. Inter-judge reliability for American and Chinese judges was 90% and 86%, respectively. No significant difference occurred between Americans and the Chinese on the number of recalled core objects ($M_{\text{American}} = 3.08$, $M_{\text{Chinese}} = 2.97$; $F(1, 161) = 0.665$, $p > .1$). Chinese participants recalled more peripheral objects than Americans ($M_{\text{American}} = 2.86$, $M_{\text{Chinese}} = 3.46$; $F(1, 161) = 10.584$, $p < .01$). As before, this significant difference was interpreted consistently with prior practice to show that the Chinese were more holistic thinkers than Americans.

Attitudes toward Ads. Measurement invariance held at the configural ($\chi^2 = 0$, $p = 1.000$, $RMSEA = 0.000$), metric ($\Delta \chi^2(2) = 3.24$, $p = .198$) and scalar ($\Delta \chi^2(5) = 3.66$, $p = .599$) levels. The mean of attitude measurement items ($\alpha = 0.867$) was subjected to

a 2 (culture) x 2 (ad) x 2 (time pressure condition) ANOVA (see Table 2 for the means and SDs). The significant main effects of time pressure ($F(1, 155) = 8.426, p < .01$), culture ($F(1, 155) = 5.271, p < .05$; see Table 2), and ad ($F(1, 155) = 58.156, p < .01$) emerged. A significant two-way interaction between culture and ad emerged as well ($F(1, 155) = 12.840, p < .1$). A significant interaction between culture and ad emerged for both the low time pressure condition ($F(1, 78) = 5.540, p < .05$) and the high time pressure condition ($F(1, 77) = 7.591, p < .01$). Therefore, cultural difference in attitudes was not significantly moderated in the low time pressure condition.

TABLE 2. Study 2 Results: Means and Standard Deviations

Speed	Culture	Ad	Mean	SD	N
Slow	American	Attribute	4.40	0.89	21
		Holistic	4.89	0.82	21
	Chinese	Attribute	3.63	0.89	20
		Holistic	5.05	1.02	20
Fast	American	Attribute	4.73	0.78	21
		Holistic	5.32	0.90	21
	Chinese	Attribute	3.95	0.69	19
		Holistic	5.50	0.75	20

7. General Discussion

Advertising information content has been studied extensively. Although literature has significantly contributed to what ad information content is and how it differs across different media, product category, and cultures, only a few studies have investigated how information content influences consumers' responses to ad and brand. This research investigated how analytic and holistic thinking influence American and Chinese consumers' responses toward ads using different types and amounts of information. Results indicated that the Chinese generate more favorable attitudes toward holistic ads than toward attribute ads, and Americans generate more favorable attitudes than the Chinese when exposed to attribute ads. Contrary to the expected results, Americans also generated more favorable attitudes toward holistic ads than toward attribute ads, and there was no significant difference between Americans and Chinese for holistic ads. Cultural differences in ad attitudes are not influenced by fast and automatic elaboration or by slow and effortful elaboration. The findings herein are robust because a key alternate explanation has been excluded: effortful elaboration that may moderate the effect of culture on ad attitudes was specifically manipulated in a follow-up on experiment and ruled out as a rival explanation because the impact was insignificant.

So, the summary result is this: Americans prefer attribute ads more than Chinese do; Chinese prefer holistic ads more than attribute ads; and, Americans and Chinese

like holistic ads equally well. Forcing fast or slow processing of these types of ads did not change the pattern. Why?

A possible explanation is consumers' need for holistic information. Consumers need information to make a better purchase decision even though they are not planning to make a purchase decision immediately or in the near future soon after seeing the ad (Schmidt & Spreng, 1996). Consumers make a lot of purchasing decisions but the outcome of a decision can only be long after the decision (Mandel, 2003). Moreover, consumers have limited information and limited numbers of trials to consider (Mitchell, 1999). For this reason consumer choice involves many types of risks such as financial, physical, social, psychological and time loss. Therefore, consumers need and use information to reduce the perceived risks (Campbell & Goodstein 2001). Risk aversion may be a social norm since individuals have been shown to be financially risk-averse in a variety of settings (Kahneman & Tversky, 1979). Both Americans and Chinese need holistic information from different information categories such as attributes and features, price, availability, etc. or certain information from different channels (e.g., price information from different stores). Otherwise, they may not make a good decision. Forcing them to take a longer time to evaluate the ad, or reducing the amount of information does not change this preference.

8. Managerial Implications

This study also has some managerial implications. Many Americans believe that advertisements have little informative value (Keown et al., 1992). This may be because advertisers in the U.S. may focus too much on attribute information and pay little attention to information from other categories. In no ways do the current findings suggest that attribute information is not important, but suggests that attribute information alone does not generate preference as strongly as holistic information does, for both cultures. Advertisers—especially those in Western cultures—may only advertise a unique or superior feature(s) of a product (e.g., highest gas mileage in the industry) because such a feature(s) may be a product's key selling point. The current study's findings suggest that advertisers in both East Asian and Western cultures should use advertisements with holistic information to induce positive attitudes. The findings further suggest that holistic ads should be used when consumers are under high time-pressure situations (e.g., when consumers are reading a roadside billboard on a highway). A roadside billboard with holistic information (e.g., free Wi-Fi, free continental breakfast, \$39.99 price) may be more persuasive than another one with only feature information (e.g., best free Wi-Fi in the area). The findings in this study may not be limited to advertising and may be applied to other areas, such as website design or direct marketing communication. A website that offers holistic information (e.g., consumers' and experts' ratings, how to select a right product, a virtual tour) instead of deep attribute information, in general, would create more preference.

9. Limitations and Future Directions

Limitations of the current study warrant further attention and afford opportunities for future work. First, this study was based on only one product (i.e., a digital camera). However, informational content and need varies across product categories (Abernethy & Franke, 1996; Franke et al., 2004). Ads for durable products provide more information than ads for non-durable products. Scholars have also found that high risk products (e.g., automobiles and appliances) can increase the need for more information (Kiel & Layton, 1981; Newman & Staelin, 1973; Udell, 1966). Future studies should investigate whether consumers' preference toward holistic ads still holds in other product categories, especially for low value and low involvement products. Second, the current study only used print advertisements. However, the information content varies across different media (Abernethy & Franke, 1996). Scholars should examine whether holistic ads used in other media, especially the Internet, can also generate more favorable attitudes. Emerged in 1990s, the Internet has grown rapidly and evolved into a main stream advertising media (Cheung & Leung, 2013; Choi et al., 2006) and accounts for 18% of total global advertising expenditure in 2012 (ZenithOptimedia, 2013). In the United States, Internet advertising revenues surpassed those of cable television (Interactive Advertising Bureau, 2013). Third, this study used college students as participants and this could skew the results toward consumers with higher levels of education who tend to have a stronger need for information (Claxton et al., 1974; Schaninger & Sciglimpaglia, 1981). Future studies should investigate consumers' responses with different educational levels toward holistic and attribute ads; it is very likely that low education consumers are less analytic thinkers. Moreover, novice consumers and expert consumers also have different information needs (Schmidt & Spreng, 1996). Expert consumers may have more objective knowledge (what a consumer actually knows) and subjective knowledge (a consumer's perception of the knowledge he knows about a product). To an extent, the novice consumer may have a more holistic thinking style. Finally, product attribute, price, and availability information were used as the stimuli. Although they are the most commonly used information cues, the effect of using other types of information cues should also be investigated.

References

- Aaker, J. L., & Maheswaran, D. (1997). The Effect of Cultural Orientation on Persuasion. *Journal of Consumer Research*, 24 (December), 315-28.
- Aaker, J. L., & Williams, P. (1998). Empathy versus Pride: The Influence of Emotional Appeals across Cultures. *Journal of Consumer Research*, 25 (December), 241-61.
- An, D. (2013). Cultural Influence on Perception of Advertising Creativity: A Cross-Cultural Comparison of U.S. and Korean Advertising Students. *International Journal of Marketing Studies*, 5 (5), 75-87.
- Abel, T. M., & Hsu, F. L. K. (1949). Some Aspect of Personality of Chinese as Revealed by the Rorschach Test. *Journal of Projective Techniques*, 13, 285-301.

- Abernethy, A., & Franke, G. R. (1996). The Information Content of Advertising: A Meta-Analysis. *Journal of Advertising*, 25 (2), 1-17.
- Briley, D. A., & Aaker, J. L. (2006). When Does Culture Matter? Effects of Personal Knowledge on the Correction of Culture-Based Judgments. *Journal of Marketing Research*, 43 (3), 395-408.
- Campbell, M. C., & Goodstein, R. C. (2001). The Moderating Effect of Perceived Risk on Consumers' Evaluations of Product Incongruity: Preference for the Norm. *Journal of Consumer Research*, 28 (December), 439-49.
- Cheung, F. S., & Leung, W. (2013). Cross-Cultural Perspectives on Attitude towards Outdoor Advertising in Internet Era. *GSTF Business Review*, 2 (4), 252-257.
- Chiu, C., Morris, M. W., Hong, Y., & Menon, T. (2000). Motivated Cultural Cognition: The Impact of Implicit Cultural Theories on Dispositional Attribution Varies as a Function of Need for Closure. *Journal of Personality and Social Psychology*, 78 (February), 247-59.
- Choi, I., & Nisbett, R. E. (1998). Situational Salience and Cultural Differences in the Correspondence Bias and in the Actor-Observer Bias. *Personality and Social Psychology Bulletin*, 24, 959-960.
- Choi, I., Nisbett, R. E., & Norenzayan, A. (1999). Causal Attribution across Cultures: Variation and Universality. *Psychological Bulletin*, 125 (January), 47-63.
- Choi, S. M., Rifon, N. J., Trimble, C., & Reece, B. B. (2006). Information Content in Magazine, Television and Web Advertising: A Comparison and Update. *Marketing Management Journal*, 16 (1), 188-203.
- Claxton, J. D., Fry, J. N., & Portis, B. (1974). A Taxonomy of Prepurchase Information Gathering Patterns. *Journal of Consumer Research*, 1 (December), 35-43.
- Daechun, A. (2007). Advertising Visuals in Global Brands' Local Websites: A Six-Country Comparison. *International Journal of Advertising*, 26 (3), 303-32.
- Franke, G. R., Huhmann, B. A., & Mothersbaugh, D. L. (2004). Information Content and Consumer Readership of Print Ads: A Comparison of Search and Experience Products. *Journal of the Academy of Marketing Science*, 32 (1), 20-31.
- Garrett, J., & Iyer, R. (2013). International Advertising Research: A Literature Review 1990-2010. *International Journal of Management*, 30 (1), 143-59.
- Glenn, E. S., Witmeyer, D., & Stevenson, K. A. (1977). Cultural Styles of Persuasion. *International Journal of Intercultural Relations*, 3, 52-65.
- Ha, L. (1998). Advertising Appeals used by Services Marketers: A Comparison between Hong Kong and the United States. *Journal of Services Marketing*, 12 (2), 98-112.
- Hall, E. T. (1977). *Beyond Culture*. Garden City, NY: Anchor Books.
- Han, S., & Shavitt, S. (1994). Persuasion and Culture: Advertising Appeals in Individualistic and Collectivistic Societies. *Journal of Experimental Social Psychology*, 30 (July), 326-350.
- Hansen, C. (1983). *Language and Logic in Ancient China*. Ann Arbor, MI: University of Michigan Press.
- Hong, Y., Morris, M. W., Chiu, C., & Benet-Martínez, V. (2000). Multicultural Minds: A Dynamic Constructivist Approach to Culture and Cognition. *American Psychologist*, 55 (August), 709-720.
- Interactive Advertising Bureau (IAB) (2013). *IAB internet advertising revenue report* (April 2013). Retrieved April 07 from http://www.iab.net/media/file/IAB_Internet_Advertising_Revenue_Report_FY_2012_rev.pdf
- Ji, L., Peng, K., & Nisbett, R. E. (2000). Culture, Control, and the Perception of Relationships in the Environment. *Journal of Personality and Social Psychology*, 78 (5), 943-55.
- Kahneman, D. (2003). A Perspective on Judgment and Choice: Mapping Bounded Rationality. *American Psychologist*, 58 (9), 697-720.
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47 (2), 263-291.

- Keown, C. F, Jacobs, L. W., Schmidt, R. W., & Ghymn, K. (1992). Information Content of Advertising in the United States, Japan, South Korea, and People's Republic of China. *International Journal of Advertising*, 11, 256-267.
- Kiel, G. C., & Layton, R. A. (1981). Dimensions of Consumer Information Seeking Behavior. *Journal of Marketing Research*, 18 (May), 233-39.
- Knowles, E. D., Morris, M., Chiu, C., & Hong, Y. (2001). Culture and the Process of Person Perception: Evidence for Automaticity among East Asians in Correcting for Situational Influences on Behavior. *Personality and Social Psychology Bulletin*, 27 (October), 1344-1356.
- Kover, A. J. (2001). Editorial: Content Analysis and Bridges. *Journal of Advertising Research*, 41 (2), 5.
- Krishna, A., Zhou, R., & Zhang, S. (2008). The Effect of self-construal on spatial judgments. *Journal of Consumer Research*, 35 (2), 337-348.
- Krull, D. S. (1993). Does the Grist Change the Mill? The Effect of the Perceiver's Inferential Goal on the Process of Social Inference. *Personality and Social Psychology Bulletin*, 19, 340-348.
- Lerman, D., & Callow, M. (2004). Content Analysis in Cross-Cultural Advertising Research: Insightful or Superficial. *International Journal of Advertising*, 23 (4), 507-521.
- Liang, B., Runyan, R. C., & Fu, W (2011). The Effect of Culture on the Context of Ad Pictures and Ad Persuasion: The Role of Context-Dependent and Context-Independent Thinking. *International Marketing Review*, 28 (4), 412-434.
- Lin, C. A. (1993). Cultural Differences in Message Strategies: A Comparison between American and Japanese TV Commercials. *Journal of Advertising*, 33 (4), 40-48.
- Lin, C. A., & Salwen, M. B. (1995). Product Information Strategies of American and Japanese Television Advertisements. *International Journal of Advertising*, 14, 55-64.
- Madden, C. S., Caballero, M. J., & Matsukubo, S. (1986). Analysis of Information Content in U.S. and Japanese Magazine Advertising. *Journal of Advertising*, 15 (3), 38-45.
- Mandel, N. (2003). Shifting Selves and Decision Making: The Effects of Self-Construal Priming on Consumer Risk-Taking. *Journal of Consumer Research*, 30 (1), 30-40.
- Masuda, T., & Nisbett, R. E. (2001). Attending Holistically Versus Analytically: Comparing the Context Sensitivity of Japanese and Americans. *Journal of Personality and Social Psychology*, 81 (5), 922-934.
- Mitchell, V. (1999). Consumer Perceived Risk: Conceptualisations and Models. *European Journal of Marketing*, 33 (1/2), 163-195.
- Monga, A. B., & John, D. R. (2007). Cultural Differences in Brand Extension Evaluation: The Influence of Analytic versus Holistic Thinking. *Journal of Consumer Research*, 33 (March), 529-36.
- Monga, A. B., & John, D. R. (2010). What Makes Brands Elastic? The Influence of Brand Concept and Styles of Thinking on Brand Extension Evaluation. *Journal of Marketing*, 74 (3), 80-92.
- Morris, M. W., Nisbett, R. E., & Peng, K. (1995). Causal understandings in cultural representations: Cognitive constraints on inferences from cultural Input. In D. Sperber, D. Premack, and A. J. Premack (Ed.), *Causal Cognition: A Multidisciplinary Debate* (pp. 577-612). Oxford, England: Oxford University Press.
- Morris, M. W., & Peng K. (1994). Culture and Cause: American and Chinese Attributions for Social and Physical Events. *Journal of Personality and Social Psychology*, 67 (June), 949-971.
- Moore, C. A. (1968). Introduction: The humanistic Chinese mind. In C. A. Moore (Ed.), *e Chinese mind: Essentials of Chinese Philosophy and Culture*. Hawaii: University of Hawaii Press.
- Munro, D. J. (1985). Introduction. In D. Muro (Ed.), *Individualism and Holism: Studies in Confucian and Taoist Values* (pp.1-34). Ann Arbor, MI: Center for Chinese Studies, University of Michigan.

- Ramaprasad, J., & Hasegawa, K. (1992). Informational Content of American and Japanese Television Commercials. *Journalism Quarterly*, 69 (3), 612-622.
- Rice, M. D., & Lu, Z. (1988). A Content Analysis of Chinese Magazine Advertisements. *Journal of Advertising*, 17 (4), 43-48.
- Newman, J. W., & Staelin, R. (1973). Information Sources of Durable Goods. *Journal of Advertising Research*, 13 (April), 13-29.
- Ng, S., & Houston, M. J. (2006). Exemplars or Beliefs? The Impact of Self-View on the Nature and Relative Influence of Brand Associations? *Journal of Consumer Research*, 32 (4), 519-529.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and Systems of Thought: Holistic vs. Analytic Cognition. *Psychological Review*, 108 (April), 291-310.
- Okazaki, S., & Mueller, B. (2007). Cross-Cultural Advertising Research: Where We have been and Where We Need to Go. *International Marketing Review*, 24 (5), 499-518.
- Okazaki, S., Mueller, B., & Diehl, S. (2013). A Multi-Country Examination of Hard-Sell and Soft-Sell Advertising: Comparing Global Consumer Positioning in Holistic- and Analytic-Thinking Cultures. *Journal of Advertising Research*, 53 (3), 258-72.
- Park, D. C., Nisbett, R. E., & Hedden, T. (1999). Culture, Cognition, and Aging. *Journal of Gerontology: Psychological Sciences*, 54B (2), P75-P84.
- Peng, K., & Nisbett, R. E. (1999). Culture, Dialectics, and Reasoning about Contradiction. *American Psychologist*, 54 (9), 741-754.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. New York: Springer Verlag.
- Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement. *Journal of Consumer Research*, 10 (September), 135-146.
- Resnik, A., & Stern, B. L. (1977). An Analysis of Information Content in Television Advertising. *Journal of Marketing*, 41 (1), 50-53.
- Schaninger, C. M., & Sciglimpaglia, D. (1981). The Influence of Cognitive Personality Traits and Demographics on Consumer Information Acquisition. *Journal of Consumer Research*, 8 (September), 208-216.
- Schmidt, J. B., & Spreng, R. A. (1996). A Proposed Model of External Consumer Information Search. *Journal of the Academy of Marketing Science*, 24 (3), 246-56.
- Steenkamp, J. E. M., & Baumgartner, H. (1998). Assessing Measurement Invariance in Cross-Cultural Consumer Research. *Journal of Consumer Research*, 25 (June), 78-90.
- Tai, S. H. C., & Chan, R. Y. K. (2001). Cross-Cultural Studies on the Information Content of Service Advertising. *Journal of Services Marketing*, 15 (7), 547-46.
- Tappan, Mark B. (1997). Language, Culture, and Moral Development: A Vygotskian Perspective. *Development Review*, 17 (March), 78-100.
- Taylor, C. R., Miracle, G. E., & Wilson, R. D. (1997). The Impact of Information Level on the Effectiveness of U.S. and Korean Television Commercials. *Journal of Advertising*, 26 (1), 1-18.
- Udell, J. C. (1966). Prepurchase Behavior of Small Electrical Appliances. *Journal of Marketing*, 6 (May), 192-197.
- ZenithOptimedia (2013). *ZenithOptimedia Forecasts 4.1% Growth in Global Adspend in 2013*. Retrieved April 7 from <http://www.zenithoptimedia.com/zenithoptimedia-forecasts-4-1-growth-in-global-adspend-in-2013/>
- Zhang, Y., & Gelb, B. D. (1996). Matching Advertising Appeals to Culture: The Influence of Products' Use Conditions. *Journal of Advertising*, 25 (3), 29-46.
- Zhu, R., & Meyers-Levy, J. (2009). The Influence of Self-View on Context Effects: How Display Fixtures Can Affect Product Evaluations. *Journal of Marketing Research*, 46 (February), 37-45.