

# **Effects of Competition on Consumer Decision Making: Matching Advertising to Culture**

**Lefa Teng**

A Thesis

in

The John Molson School

of

Business

Presented in Partial Fulfilment of the Requirements  
for the Degree of Doctor of Philosophy in Administration at  
Concordia University  
Montreal, Quebec, Canada

April 2003

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# ABSTRACT

## Effects of Competition on Consumer Decision Making: Matching Advertising to Culture

Lefa Teng, Ph. D.  
Concordia University, 2003

The dual mediation model suggests that in addition to a direct effect, ad attitude (Aad) also has an indirect influence on brand attitude (Ab) through brand cognition (Cb). As well, brand attitude (Ab) influences purchase intention (PI). However, the model fails to take ad affect (AFFad) and confidence in evaluating a brand (CONb) into account, and it does not include competition. The competitive vulnerability model includes competition, but it lacks the fundamental constructs such as ad cognition (Cad), AFFad, and Aad. By integrating the dual mediation model and the competitive vulnerability model, this research offers a more comprehensive understanding of the effects of advertising on consumer brand choice behavior. This study also fills the void in the literature by extending the framework into a multicultural setting and examining whether the proposed consumer brand choice model is invariant across North American and Chinese cultures. Furthermore, the interaction effects of culture-laden advertising appeals, ad arguments, and culture-laden pictures on consumers' attitudes and purchase behavior are examined and compared between North American and Chinese consumers. Specifically, this comparison is examined in the multiple-ad and multiple-brand environment. A total of ten testable hypotheses are proposed.

In order to test these hypotheses, two separate experiments are developed. Experiment 1 is designed to study the interaction effects of ad contents (i.e., weak and strong arguments) and advertising appeals (i.e., individualistic-laden and collectivistic-laden advertising appeals) on consumers' Cad, AFFad, Aad, Cb, Ab, CONb and PI in a competitive environment. Experiment 2 is designed to study the interaction effects of culture-laden pictures (i.e., individualistic-laden and collectivistic-laden pictures) and culture-laden advertising appeals on these measures in a competitive situation. Both experiments test the extended competitive vulnerability model and the interaction effects on consumer brand choice behavior across two cultures. In order to put the data for this dissertation to its most effective use, both experiments are undertaken with consumers, or "real people," and not from a student sample in North America and China. Such verification increases confidence in the findings. The data are analyzed using MANOVA and structural equation modeling. The results from this research contribute to the understanding of how the multiple-ads and multiple-brands influence consumer attitudes and purchase behavior in multicultural environments.



## ACKNOWLEDGMENTS

First and foremost I would like to express my greatest gratitude to my supervisor, Dr. Michel Laroche, for his invaluable and tireless guidance, encouragement, enthusiasm, and ideas throughout all the stages of completing this dissertation. No matter how often I met with him, his door was always open to me and I met him very often. Not only did he shared his knowledge and experience with me, but personally also showed me how to be a good researcher. I very much enjoyed participating in several research projects with him and there is no doubt that his expertise and personal characteristics will significantly influence my future research development and personal life.

I would also like to thank my committee members, Dr. Sourav Ray and Dr. Jean-Charles Chebat, for providing invaluable comments. Their guidance and encouragement during the critical stages of my dissertation is greatly appreciated. As well, Dr. Ray provided me with his assistance in my job search. I also wish to acknowledge Dr. Annamma Joy and Dr. Lianxi Zhou for their tremendous guidance and encouragement during the thesis phase and my job search. I am also indebted to Dr. B. Kemal Büyükkurt, who served in my committee during the second phase of my study.

I would like to express my appreciation for all faculty members in Marketing Department at Concordia University for providing me with the opportunities to obtain encouragement and criticism during the period of Ph. D. annual report.

I also wish to acknowledge my fellow doctoral students, Maria Kalamas, Susan Reid, Frank Pons, Xiaoyun Wang and Zhenzhong Ma for their friendship and support. Maria helped me adapt to the North American environment and assisted me in my job

search. As officemates, we also shared the joys and frustrations of Ph.D. life. Special thanks also go out to Mrs. Heather Thomson for creating a warm and pleasant office environment as well as her support and encouragement.

Many thanks are due to Ms. Susanne Sternburgen, Ms. Marjorie Davis and Ms. Helen Rocque in Canada, and Mr. Minqing He, Mrs. Shufen Dai, Mr. Xiaoming Zhen and Miss Xingrui Zhang in China, who provided full support to the data collection. I would also like to thank Mr. Xiaoyun Wang and Mr. Qingrui Wu for their assistance in developing the advertisements that were used in the two experiments in both Canada and China. Special appreciation is also extended to Mr. Shoukang Cao in helping me to recruit qualified translators.

Thanks also go to the John Molson School at Concordia University for funding this dissertation.

My deepest appreciation goes to my father in-law, who is always there to support and encourage me. Finally, I would like to acknowledge the profound contribution of my beloved wife, Xue Xu and my dear son, Andrew for their incredible emotional support and patience during my entire study in Ph. D. program.

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# Chapter One

## Introduction

Numerous studies have shown that attitude toward an ad (Aad) is related to attitude toward the brand (Ab) (Homer 1990; MacKenzie and Lutz1989; MacKenzie, Lutz, and Belch 1986; Mitchell 1986; Muehling and Laczniak 1988), brand cognition (Cb) (MacKenzie and Lutz1989; MacKenzie, Lutz, and Belch 1986), ad recall (Zinkhan and Fornell 1989), purchase intention (PI) (Mitchell and Olson 1981), and the act of purchasing the brand (Mitchell 1986). A widely accepted hypothesis describing these interrelationships is a dual mediation model developed by MacKenzie, Lutz, and Belch (1986), which suggests that, in addition to a direct link, an indirect causal link between Aad and Ab exists and is mediated by Cb. As well, Ab influences PI. However, the dual mediation model isn't examined in a competitive situation and misses two key factors: consumers' affective responses toward an ad (AFFad) and consumers' confidence in evaluating a brand (CONb).

Although Laroche's competitive vulnerability model takes CONb into account (Laroche and Brisoux 1989; Laroche, Hui and Zhou 1994; Laroche, Kim and Zhou 1995 & 1996; Laroche and Sadokierski 1994; Laroche and Teng 2001), it lacks the links of ad cognition (Cad) and AFFad. More recently, Laroche (2002) attempted to relate the competitive vulnerability model to the dual mediation model, but no empirical test was

conducted. In addition, both models occur within a specific culture, most notably in North America.

In the past decade, consumer behavior in attitudes and purchase intentions has become a major concern for marketing researchers and market practitioners. Consumer-related research has also paid much attention to the relationships among *Cad*, *AFFad*, *Aad*, *Cb*, *Ab*, *CONb* and *PI* (Edell and Burke 1987; Homer 1990; MacKenzie and Lutz 1989; MacKenzie, Lutz, and Belch 1986; Mitchell 1986; Mitchell and Olson 1981; Muehling and Laczniak 1988), as well as competitive relationships among some of these constructs (Laroche and Brisoux 1989; Laroche, Hui and Zhou 1994; Laroche, Kim and Zhou 1995 & 1996; Laroche and Sadokierski 1994; Laroche 2002; Laroche and Teng 2001). However, none of these studies has offered a comprehensive framework within which all these factors have been considered simultaneously in a competitive environment.

There are two reasons I propose a comprehensive competitive vulnerability framework. First, from the theoretical perspective, brand beliefs are not the sole antecedent of *Ab*. *Aad* accounts for a share of variance in *Ab* beyond that explained by brand beliefs (Mitchell and Olson 1981). Some researchers have examined the link between *Aad* and *Ab* relationship (Cox and Locander 1987; Gardner 1985; Homer 1990; MacKenzie and Lutz 1989; MacKenzie, Lutz, and Belch 1986; Muehling 1987). However, evidence has shown that ad affect is a key indicator of *Aad* (Edell and Burke 1987; Holbrook and Batra 1986; Goldberg and Gorn 1987; Zajonc 1980). Researchers have also found that *CONb* determines *PI*, which influences Choice of a brand (Laroche and Sadokierski 1994; Laroche 2002; Laroche and Teng 2001). Therefore, *AFFad* and

CONb should be taken into account when analyzing consumer brand choice behavior. Second, from a practical perspective, marketing practitioners must become increasingly cognizant of the communication values of their advertising messages and contexts, in order to compete successfully for the consumers' attention. Competition is unavoidable and although the competitive environment can not be controlled, an understanding of its effects on the consumer brand choice process may have important implications for ad design, promotion strategies and sales tactics.

Moreover, as the marketing world moves toward globalization, and as new markets are opened up, it becomes essential to understand how consumer behavior differs from one culture to another. For example, while consumer brand choice models have been presented to help better understand how consumers who live in an individualist culture (i.e., North Americans) choose a brand, less significant work has developed to explain why and how consumers who live in a collectivist culture (i.e., the Chinese) (Gudykunst 1997; Hofstede 1980; Hui and Triandis 1986; Triandis 1995) select a particular brand. Culture is considered to be a set of socially acquired behavioral patterns that are transmitted both literally and symbolically through language and other means to the members of a specific society (Hirsch, Kett and Trefil 1988). Culture provides a framework of common traditions, values, and beliefs, which influence consumer behavior. More research needs to be done in order to understand how consumers from different cultures perceive and react to different communication variables such as the characteristics of source, message and context of an ad. Therefore, this study also fills the void in the literature by (1) extending the framework to a multicultural setting and (2) examining whether the proposed consumer brand choice model is invariant across North

American and Chinese cultures. In addition, the interactive effects of different culture-laden advertising appeals, arguments and culture-laden pictures expressing cultural values on consumers' attitudes and purchase behaviors are examined between North American and Chinese consumers. Specifically, this comparison is examined in multiple-ad and multiple-brand environments.

# Chapter Two

## Consumer Brand Choice Process

### 2.1 Review of brand attitude formation process

Little research has been done in the area of consumer brand choice process across cultures. Therefore, most of the past research and consumer brand choice models described in this overview will be based on mainstream North American culture. A review of Mitchell's (1980 and 1981), Greenwald and Leavitt's (1984), Petty and Cacioppo's (1986), MacKenzie, Lutz, and Belch's (1986), MacInnis and Jaworski's (1989) and finally Laroche's models is presented (Laroche and Brisoux 1989; Laroche, Hui and Zhou 1994; Laroche, Kim and Zhou 1995 & 1996; Laroche and Sadokierski 1994; Laroche 2002; Laroche and Teng 2001). The present overview begins with a retrospective look at previous brand processing models based on how consumers' attitudes are formed. While the past models concentrated on a process methodology that leads to attitude formation and toward purchase intent, Laroche and his colleagues have shown that competitive effects underlying the process of consumer brand choice exist and significantly influence consumer purchase behavior.

#### 2.1.1 Mitchell's brand processing model

Mitchell and his colleagues developed a brand-processing model (Mitchell 1980, 1981, 1983 and 1986; Mitchell and Olson 1981). They suggested that involvements could

lead to three types of information acquisition processes. One is caused by high involvement and two are caused by low involvement. Here, involvement is defined as “an internal state variable whose motivational properties are evoked by a particular stimulus” (Michell 1981, p.29). Two dimensions, such as intensity (i.e., the amount of attention devoted to an ad) and direction (i.e., brand versus non-brand processing strategy), determine involvement levels, which in turn affect types of information acquisition processes. High involvement means high interest in the advertised brand. In the case of high involvement, consumers devote all their attention to the ad, execute a brand processing strategy, and deeply process brand-related ad information while forming an overall evaluation of the advertised brand. The formation of attitudes is based on the thoughts about the persuasiveness of the ad information. In contrast, consumers activate schema-relevant knowledge in the processing of low involvement, but insufficient attention is directed toward the ad, and it results in less generation of counterarguments or support arguments. Attitudes tend to be formed on the basis of the evaluation of the learned information. In addition, another type of processing of low involvement occurs under the nonbrand processing strategy. Consumers do not completely comprehend messages and only acquire partial information about the advertised brand, which is not translated to any great extent into message-related thoughts. Consumers may not form attitudes immediately following exposure, but they may form attitudes at a later time if needed. Particularly, the relationship between counter-arguments/support arguments and attitudes in low involvement condition is weaker than it is in high involvement. This may suggest that other mediators of attitude formation may have a greater influence under low involvement. Mitchell (1986) suggested that attitude toward the ad accounted for a share

of variance in brand attitude beyond that explained by brand beliefs. This important finding challenged the popular conception that brand beliefs are the sole antecedent of brand attitude.

### 2.1.2 Greenwald and Leavitt's Model

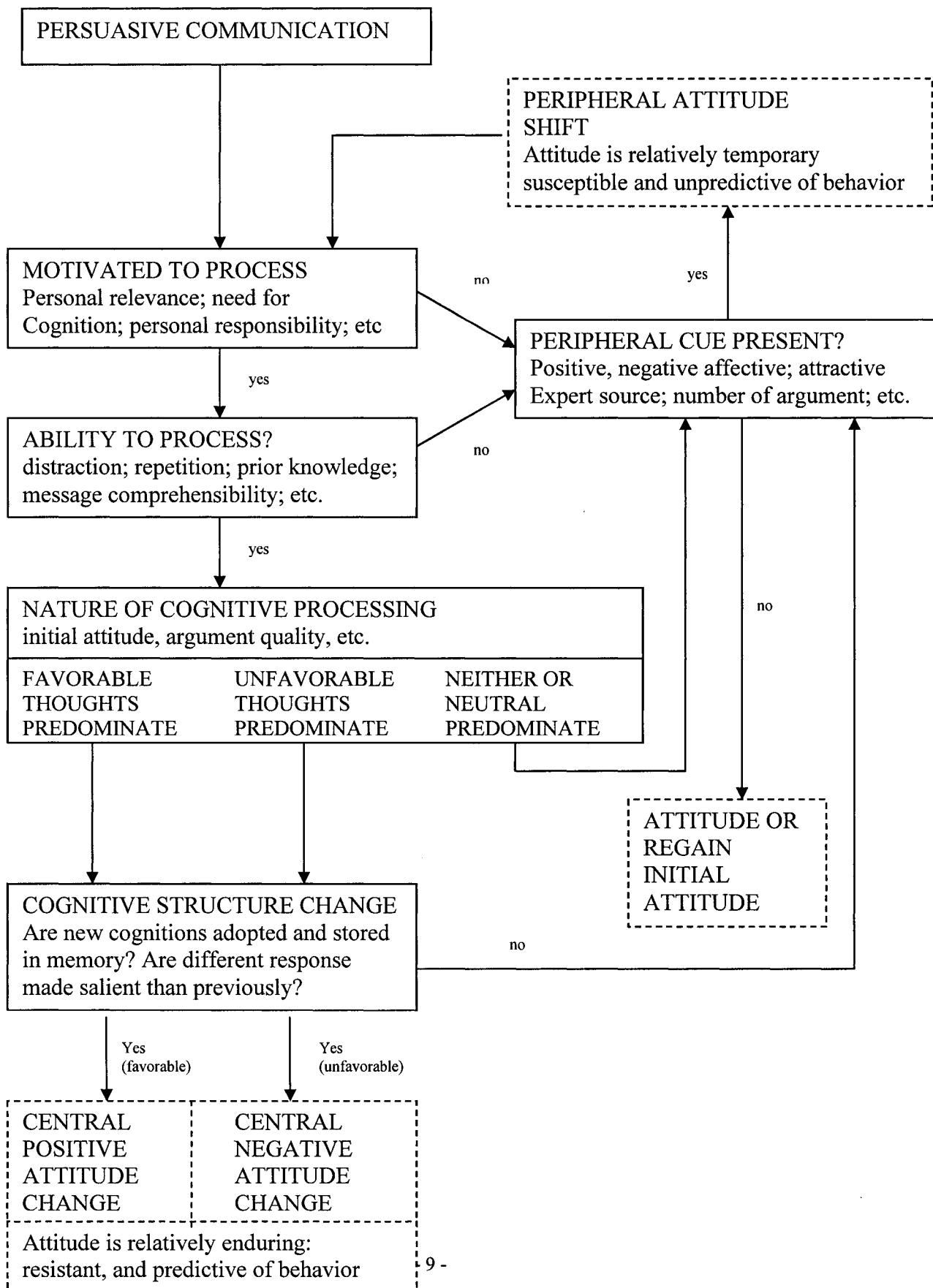
Greenwald and Leavitt (1984) suggested four levels of involvement, which are pre-attention, focal attention, comprehension and elaboration, in order from low to high. The four levels allocate increasing attention capacity to a communication message source, as needed for analysis of the message by increasingly abstract and qualitatively distinct representational systems. The communication messages are processed from low to high level. Greenwald and Leavitt (1984) linked the levels of audience involvement to “the psychological concepts of variable attention capacity, levels of processing, qualitatively different representational systems, and (indirect) arousal” (Greenwald and Leavitt 1984, p.591). A message analyzed at a high level must be analyzed at all lower levels. The higher levels need greater capacity and produce increasingly durable cognitive effects while lower levels require only relatively little capacity. However, message-based attitude change can occur only at levels three (comprehension) and four (elaboration). At level three, message-based attitude change can be produced if the comprehended message can effectively associate novel persuasive arguments with an attitude object. On the other hand, at level four, elaboration “produces substantial freedom of memory and attitude from the specific details of the original message or its setting” (Greenwald and Leavitt 1984, p.588). The analysis in four levels of involvement makes the attitude formation processes more appropriate (MacInnis and Jaworski 1989).

### 2.1.3 Petty and Cacioppo's ELM

Petty and Cacioppo (1986) developed the elaboration likelihood model (ELM, Figure 2.1), which proposes that persuasion may take either a central or a peripheral route. In the central route, an individual engages in extensive cognitive elaboration of the message arguments. The formation of post-communication attitudes is based on this cognitive elaboration. Possibly the cognitive elaboration occurs because processing motivation, ability, and opportunity are high. In other words, when situational or individual variables ensure high motivation and ability for issue-relevant thinking, the elaboration likelihood is said to be high. As a consequence, the probability of the recipient following a central route processing is also high. Motivation refers to the consumers' desire or readiness to process information in an ad. An internal readiness to process brand information is created by the personal relevance of the stimulus (Moorman 1990). In contrast, ability refers to the consumers' proficiency or skill in interpreting brand information of an ad. The availability and accessibility of relevant knowledge structures provides the foundation for processing ability (MacInnis, Moorman and Jaworski 1991). In the peripheral route, however, attitudes are derived from message cues that are irrelevant to forming a reasoned opinion, since individuals use "peripheral" cues to evaluate the message. In addition, the peripheral route is traveled when motivation or ability is lacking (Engel, Blackwell and Miniard 1995).



**Figure 2.1: Elaboration Likelihood Model  
(From Petty and Cacioppo, 1986)**



Therefore, attitudinal responses to an ad depend on the content of the focal ad (i. e., strength of arguments provided, type of peripheral cues used). However, consumers' ability to comprehend the content of an ad will moderate their attitudinal response to a specific type of ad. For instance, the attitudes of consumers with higher ability to process brand information are less affected by positive peripheral cues while those of consumers with lower ability are influenced by these cues.

ELM is a particularly useful framework for understanding how consumers process information from an ad and the subsequent attitudinal responses to it. According to the ELM, the effect executed by various communication elements depends on the amount of issue-relevant elaboration that occurs during the process. The central route is followed when elaboration is high. In information processing, only those communication elements that are relevant in forming a reasoned opinion are influential. In contrast, the peripheral route to persuasion occurs when elaboration is at low levels, in which elements that are irrelevant to forming a reasoned opinion become influential.

#### 2.1.4 MacKenzie's dual mediation model

MacKenzie, Lutz and Belch (1986) used the distinction between the central and peripheral routes to analyze the theoretical relationships in their dual mediation model. They developed the way in which Aad mediates Ab and PI by explicating and testing the four alternative hypothesized models (Figure 2.2). Their data had a better fit with the dual mediation explanation. Under the dual mode persuasion process, Aad and brand cognitions directly influence brand attitudes, whereas ad cognitions indirectly impact brand attitudes through Aad. Aad is also expected to have an indirect influence on brand attitudes through brand cognitions. The relationship between ad and brand attitudes

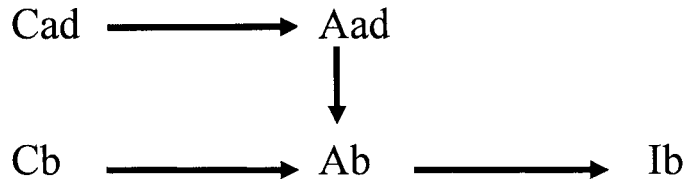
represents the peripheral route, whereas the path from brand cognitions to attitudes reflects the central route. The authors' explanation for the effect of Aad on brand cognitions is as follows (MacKenzie, Lutz, and Belch 1986, p.132):

“...the Aad → Cb linkage represents the notion of ad affect as one of a general class of persuasion cues (Fishbein and Ajzen 1975) that can enhance or diminish the acceptance of message content. It is worthwhile to note that the DMH, by its inclusion of the Aad → Cb link, departs from the ELM posited by Petty and Cacioppo (1981).”

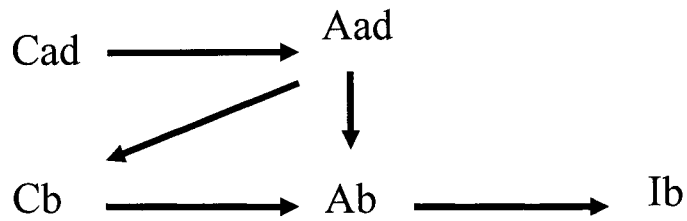
Moreover, MacKenzie and Lutz (1989) proposed that the causal relationships among ad cognitions, Aad, brand cognitions and attitudes vary depending on the level of the advertising message involvement and the advertising execution involvement. More specifically, the advertising message involvement represents the amount of cognitive effort devoted to the content of communications, whereas the advertising execution involvement reflects the effort given to the contextual and non-content aspects of the ad (i.e., message source). Subjects high in the two involvements are believed to use a dual mode persuasion mechanism to form their brand attitudes. However, subjects' brand attitudes are expected to be directly impacted only by Aad, with Aad being affected by ad cognitions, when they are involved with high execution involvement and low message involvement. On the other hand, when subjects are involved with high message involvement and low execution involvement, brand cognitions are expected to serve as the sole antecedents of their brand attitudes. Obviously, Aad can influence Ab regardless of what kind of mixed involvement is taken during persuasion process.

**Figure 2.2: Four Alternative Models of Ad Attitude**

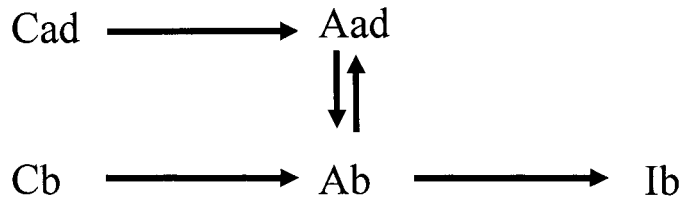
A. Affect Transfer Hypothesis



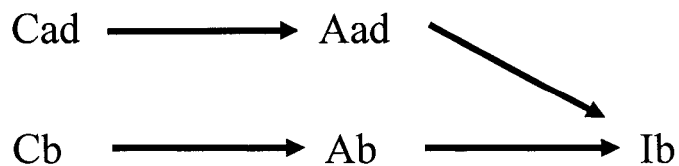
B. Dual Mediation Hypothesis



C. Reciprocal Mediation Hypothesis



D. Independent Influences Hypothesis



Key:

- Cad represents ad cognitions;
- Cb represents brand cognitions;
- Aad represents attitude toward the ad;
- Ab represents attitude toward the brand;
- Ib represents intention to purchase the brand.

Homer (1990) conducted two experiments replicating the work of MacKenzie, Lutz, and Belch (1986). The findings which resulted from both experiments favored the dual mediation hypothesis over the competing Aad models, although some researchers have found no evidence of a significant indirect path between ad attitudes and brand attitudes via brand cognitions (MacKenzie and Lutz 1989). In addition, Brown and Stayman's (1992) meta-analysis of 47 independent samples reported in 43 articles provided further support for the dual mediation model. They suggested that there is a significant relationship between brand cognition and brand attitude. It is worth noting that this relationship is important in understanding the indirect effect of ad attitude.

However, the dual mediation model not only misses some key variables such as ad affect and confidence in evaluating a brand, but also does not include competition. Evidence has shown that ad affect plays an important role in the formation of Aad (Edell and Burke 1987; Homer 1990; Mitchell 1986; Mitchell and Olson 1981). In addition, some studies have demonstrated that consumers' brand cognitions significantly influence their confidence in that brand, which finally impact their purchase intentions toward the same brand (Laroche and Sadokierski 1994; Laroche, Kim and Zhou 1996). Moreover, any advertisement does not exist in a vacuum. Other competing ads and brands may affect consumers' ad and brand information processing and purchase decision-making.

### 2.1.5 MacInnis and Jaworski's integrative framework

MacInnis and Jaworski (1989) developed an integrative framework of information processing from advertisements. This framework proposes six levels of brand processing which occur in response to advertisements. The six processing operations are: feature analysis, basic categorization, meaning analysis, information integration, role-taking and

constructive process. Each level of processing has a representative operation associated with it.

Level one is associated with simple feature analysis of ad information. The recipients do not process brand-relevant information. They may either process the gross features of the ad or identify salient ad cues. This process is limited to the recognition of advertising message stimuli and the automatic activation of their habitual associates (Baker and Lutz 1988).

Level two occurs when consumers combine features (e.g., voices and beat) associated with a specific cue (e.g., music) within the ad to perform a categorization judgment and assign a semantic label (e.g., Beatles song).

Level three refers to the interpretation of salient ad cues to “derive some basic understanding of the message” (MacInnis and Jaworski 1989, p.6). The recipients are still focusing on ad cues. The processing still requires only minimal cognitive effort and the recipients are using ad cues only for a superficial processing. At this time, advertising messages are interpreted at an absolute level based on category knowledge in memory. The important feature in this level is that consumers use simple non-analytical inference to derive credibility responses (Alba and Hutchison 1987).

Level four is where information integration takes place. Consumers focus on and search for salient and nonsalient ad cues perceived as message relevant. While consumers integrate these salient and nonsalient ad elements, their cognitive responses may reflect the formation of inferences (e.g., coherence inferences, deductive inferences or causal inference). Moreover, they use stored product knowledge to evaluate the importance, persuasiveness or relevance of the attended information. In short, consumers allocate

sufficient resources to integrate ad cues in this level and engage in a “bottom-up analysis of specific points/cues contained within the ad” (MacInnis and Jaworski 1989, p.12).

Level five involves empathy-based persuasion where consumers take the role of the ad’s protagonist and vicariously experience the ad events. Largely informational ads with few or absent emotion-laden cues are unlikely to elicit a role taking operation. Consumers’ attitudes are formed and affected by vicariously experiencing emotions at this level.

Level six is thought to happen when the individual embellishes presented brand information in the ad and mentally constructs product attributes, benefits, uses, or usage situations not presented in the ad. At this level, individuals may combine prior knowledge with presented information to consider or imagine the potential product uses.

Therefore, MacInnis and Jaworski’s integrative framework reveals that the level of processing can be assessed by looking at the types of thoughts generated in response to an ad. Level 1 and 2 are depicted as non-brand processing while level 3 and 4 are depicted as brand information processing. Level 5 and 6 are depicted as high-level types of processing. Processing at these high levels should yield more durable cognitive and attitudinal effects. It is here that consumers make relative judgements and comparative brand evaluations (Baker and Lutz 1988).

### 2.1.6 Laroche’s competitive vulnerability model

Laroche, Bergier and McGown (1980) first developed the multiple-brand model of intentions. This model was also renamed the competitive vulnerability model by Howard (1989, p. 183-189; 1994, p. 308-314). The model posits that consumers’ intentions are formed based on the distribution of their attitudes toward different brands.

Their intentions toward a focal brand not only depend on their attitudes toward the focal brand, but also depend on their attitudes toward the competing brands in the consideration set. This is contrary to the traditional models, which assume that consumers' intentions are based on a single attitude measure, and that their intentions toward a focal brand are only determined by their attitudes toward the same brand. Using data on Coke and Pepsi, Laroche et al (1980) tested the single-brand and multiple-brand models and concluded that the two different models resulted in dramatic differences in prediction of the choice between Coke and Pepsi. The multiple-brand model explained a larger percentage of variances of intentions.

Much later, the competitive vulnerability model was tested numerous times either with a large number of brands using multiple regression analysis (Laroche and Brisoux 1981 and 1989) or with a small number of brands using structural equations modeling (Laroche, Hui and Zhou 1994; Laroche, Kim and Zhou 1995). The findings from these studies demonstrated that competitive effects exist, and thereby form the basis for the competitive vulnerability model.

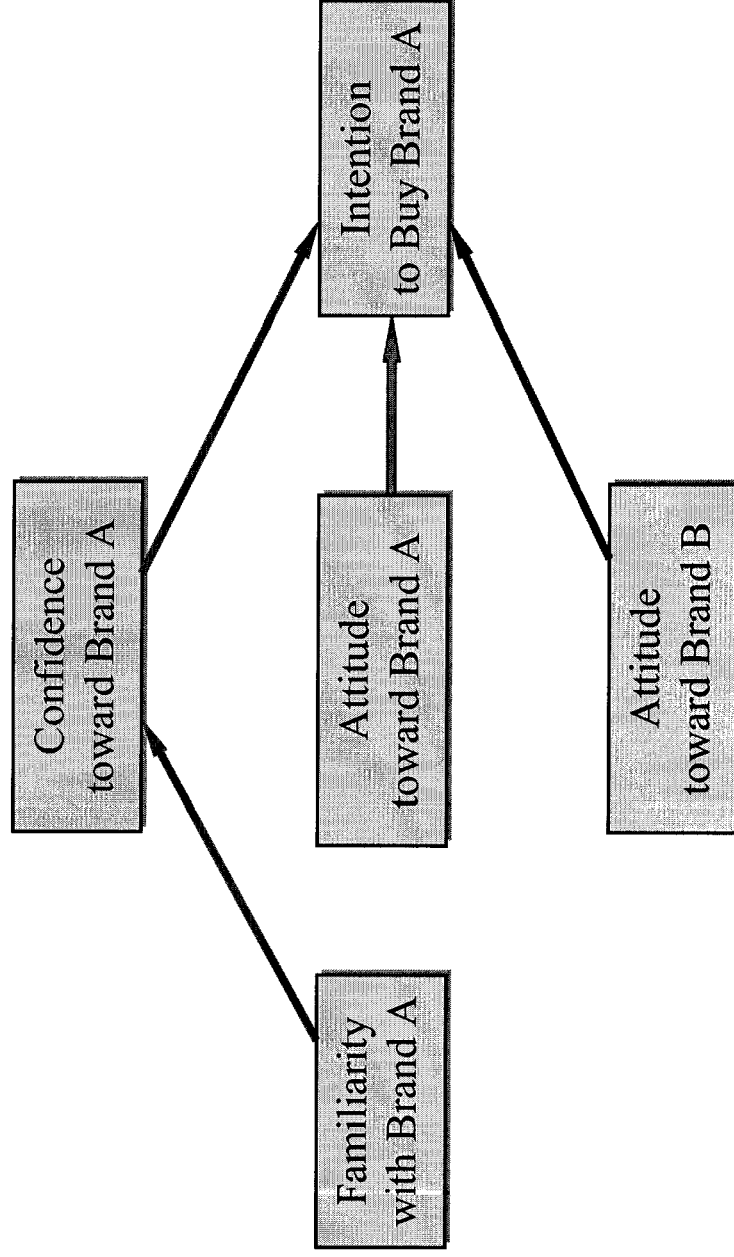
Furthermore, Laroche and Sadokierski (1994) incorporated confidence in a multi-brand model of intentions. They examined the relationships among three key constructs: global measures of attitudes, the distribution of attitudes in the consumer's evoked set, and confidence in one's own judgment. The results of an empirical study using data on the selection process for an investment firm among a homogeneous group of high-income individuals, confirmed that attitudes and confidence significantly explain intention to select an investment firm. In addition, Laroche and his colleagues (Laroche, Kim and Zhou 1996) provided a more complete understanding of the determinants of intention



formation by extending Laroche and Sadokierski's model, which incorporates confidence (Figure 2.3). It not only examined the influence of brand familiarity on confidence in brand evaluation as well as the relationship between brand familiarity and brand attitude, but also tested the effect of one's confidence in brand evaluations on intention to buy the brand. The findings suggested that consumers' brand familiarities or experiences with a focal brand influence their confidence in evaluating the focal brand. These consumers' attitudes to and confidence in the focal brand in turn positively affect their purchase intention toward the same brand while their attitudes toward the competing brands negatively impact their intention to buy the focal brand. Thus, confidence is one of the key competitive determinants of purchase intention.

In sum, evidence shows that the competitive effects underlying the brand cognition or familiarity-attitude relationship, the brand cognition or familiarity-confidence relationship, and attitude/confidence-intention relationship, exist in the consumer brand choice process. The effects of one brand on another cannot simply be captured by just a comparison of consumers' belief, or attitude or intention scores. This is contrary to Dabholkar's conceptual model (1994), which assumes that brand comparisons are done only in one of four levels: consumers' beliefs, expectancy-value components, attitudes or intentions. In fact, consumer brand choice process is a sequential process (Laroche 2002; Laroche and Teng 2001).

**Figure 2.3: Brand Familiarity and Confidence as Determinants of Purchase**



## 2.2 Role of culture in consumer behavior and advertising

### 2.2.1 Consumer behavior and advertising

Evidence has shown that advertising is sometimes welcomed by consumers and is perceived as useful and informative in their purchase decision-making processes (Engel, Blackwell and Miniard 1995; Wright and Barbour 1975). Advertising plays an important role in consumers' initial learning about products, since it is not only plentiful and repetitive (Wright and Barbour 1975), but also available at virtually no cost to consumers (Wernerfelt 1996).

The important goal of advertising is to change consumers' attitudes in a direction more favorable to the advertised brand. In turn, this change in attitude influences consumers' purchase decision-making. Numerous studies have demonstrated that attitude toward the brand ( $A_b$ ) is affected by brand related beliefs and attitude toward the ad ( $A_{ad}$ ) (Gardner 1985; MacKenzie and Lutz 1989; MacKenzie and Lutz and Belch 1986; Mitchell and Olson 1981).

Marketing practitioners make considerable use of advertising to create a favorable attitude toward their brands. Several studies have shown that advertised brands are sought out more than non-advertised brands (Hoch and Ha 1986). The reason could be that advertising encourages search for advertised brands by creating favorable  $A_b$ , since  $A_b$  is an indicator of brand utility (Simonson, Huber and Payne 1988). If one brand has a much higher utility value than other competing brands, search for further information on this brand will be less, because further information will be less likely to impact utility ranking and purchase choice (Meyer 1982).

Moreover, information search effort depends on a consumer's motivation and ability to search for information. Bettman (1979) defined motivation as a desire to expend effort on a task. Several variables such as a consumer's need for cognition, product involvement, purchase involvement, or attitude toward shopping play a role in information search (Beatty and Smith 1987). Ability to process information refers to the perceived cognitive capability for searching and processing information. It also includes knowledge of source of information and knowledge of procedures for searching (Brucks 1985). An individual's prior knowledge is a key factor that significantly determines her/his ability to search for and evaluate information (Johnson and Russo 1984). According to previous studies, consumers may have knowledge about product category and brand. Product category knowledge refers to knowledge of product terminology, product relevant attributes and usage information, as well as decision-making processes (Engel, Blackwell and Miniard 1993 & 1995). In addition, brand knowledge means knowledge of brand specific facts such as brand names, features possessed, performance and so on. Evidence has shown that there is a positive relationship between product category knowledge and search (Brucks 1985), whereas a negative relationship exists between brand knowledge and search (Beatty and Smith 1987). Generally speaking, consumers search less on some brands of one product category if they already possess relevant information about these brands. However, in a situation in which consumers possess little brand knowledge, I would expect consumers' search behavior would be primarily dominated by product category knowledge.

A particularly useful framework for understanding how consumers process information from advertising and the consequent attitudinal responses to the ad and the

brand in the ad is provided by the elaboration likelihood model (ELM) put forth by Petty and Cacioppo (1986). Based on the ELM, MacKenzie, Lutz, and Belch (1986) developed the widely used dual mediation model, which describes the relationships among ad cognitions (Ca), Aad, Cb, Ab and purchase intention (PI). The empirical results indicated that advertising significantly influences consumer purchase behavior.

Therefore, any marketer would want all consumers to (1) include her/his brand in their search and consideration set, (2) include or exclude certain other competing brands in their search and consideration set, (3) focus on and evaluate attributes more favorable to her/his brand, and (4) purchase her/his brand. Marketing practitioners are also interested in affecting consumers' advertising evaluations in order to benefit their own brands with a view to increasing their sales potential.

## 2.2.2 Culture influence on consumer behavior and advertising

Kluckhohn and Kelly (1945) defined culture as “a historically derived system of explicit and implicit designs for living which tend to be shared by all or specifically designated members of a group (p.97).” Hirsch, Kett and Trefil (1988) proposed a more popularly accepted definition of culture, although it is possibly inappropriate. They defined culture as “the sum of attitudes, customs, and beliefs that distinguishes one group of people from another. Culture is transmitted, through language, material objects, ritual, institutions, and art, from one generation to the next (p.396).” Obviously, this definition specifies aspects of society that may be used to differentiate one culture from another. Moreover, culture includes the physical, political and economic aspects of the environment. Changes in environment may require changes in other areas of culture. For example, Chinese culture is presently evolving dramatically, largely due to environmental

changes (Bond 1991). China is a developing country, but dramatic changes have taken place there since 1978 (LaTour and Henthorne 1990). Due to these changes within the cultural/economic environment, Chinese consumers' purchasing power has rapidly increased along with fast economic growth (Li 1996). Chinese consumers are also becoming very knowledgeable regarding a variety of products. Comparatively, North American culture is also evolving at a rate previously unseen as dramatic advances in technology and communication change the way one sees the world.

Within a culture, people tend to share certain values that are considered as the governing ideas and guiding principles for thought and action, and these values are powerful forces in shaping consumers' motivations, life-styles, and product choices (Cheng 1994). It is important to note that in some cultures, people describe themselves as individuals, whereas in other cultures, people identify themselves as part of a group or collective social norm. This distinction among cultures is the individualism-collectivism dimension (Gudykunst 1997; Hofstede 1980; Hui and Triandis 1986; Triandis 1995). The individualism and collectivism construct is fundamental to analyzing the norms and rules underpinning different cultures (Hsu 1981). It is also a key variable in understanding differences between cultures from a variety of different psychological and social aspects (Hsu 1981).

Numerous studies have shown that the Chinese are collectivistic whereas North Americans are individualistic (Hofstede 1980 and Hui 1988). Chinese revere the past and the family whereas North Americans favor the individual over the family. Members of collectivist societies are more focused on the in-group and its needs, goals and interests than on those of the individualist. However, members of individualist societies are more

centered on their own needs, goals and interests. In addition, since individualists and collectivists differ, they attach different weights to different attributes of a particular object or phenomenon (Bond 1991). Collectivists attach stronger weight to attributes (e.g., an emphasis on family/group and respect for elders) that are more influential in affecting the groups' benefits, whereas individualists attach weight to attributes (e.g., an emphasis on independence and self-achievement) that are important in reflecting personal benefits (Bond 1991).

In addition, individuals from individualistic cultures normally tend to be biased toward "private" self with greater frequency, so their behavior tends to be governed by the "private" self-elements (e.g., self-sufficiency and self-achievement). In contrast, the behavior of the subjects from collectivistic cultures is governed by "collective" elements (e.g., family and group), since they tend to have a bias toward the "collective" self. Moreover, Snyder (1992) has shown that individuals develop their self-theory to achieve a sense of uniqueness vis-à-vis other members of their society. This unique motivation appears to hold more in individualistic societies than in collectivistic ones (Markus and Kitayama 1991). In other words, individuals from individualistic cultures have a greater motivation of uniqueness than individuals from collectivistic cultures. These differences may have important implications for consumer brand choice decision-making. Therefore, cultures differ in consumers' values, norms, perceptions and these differences may be reflected in consumer brand choice behavior.

There is evidence to support the proposition that culture greatly impacts consumer behavior from both an applied perspective (Chiu, Tsang and Yang 1988; LaTour and Henthorne 1990; Vinson, Scott and Lamont 1977) and a theoretical perspective

(McCracken 1990; McDonald 1995). Research has shown that social concerns are very important when it comes to products for collectivists. For example, family considerations and their opinions are socially concerned when Chinese consider buying certain products. Chinese often place high importance on what family members think about the purchase and use of some items. Based on their study in a shopping mall choice, Stoltman, Gentry and Anglin (1991) showed that individual differences, cultural and sub-cultural influences contribute to consumers' purchase behavior. Fishbein and Ajzen (1980) also argued that an individual's intention to act is highly related to perform a particular action given the situation. In addition, research has suggested that Chinese are very open with their family members who are strongly connected to subjective norms concerning the advice and approval of purchase decisions from them. Family members are involved in purchase decisions and 'family' is strongly rooted in Chinese culture. However, North Americans emphasize the importance of individualism and self-expression in their purchase. Empirical studies have also found that with different cultural backgrounds, consumers tend to have different need recognition, information search processes, product and alternative evaluations as well as purchase behavior (Andrew, Lysonski and Durvasula 1991; Tse, Belk and Zhou 1989; Zandpour, Chang and Catalano 1992). Cultural factors influence individuals' responses to the contents of particular ads (Tse, Belk and Zhou 1989), consumers' attitudes toward advertisements and the promoted products in the ads (Andrew, Lysonski and Durvasula 1991). It seems obvious that culture's effects have penetrated into almost every part of individual behavior.

The function of culture in consumer behavior has also been studied from the theoretical perspective. For example, Engel, Blackwell and Miniard (1993) proposed a



model of consumer behavior. In this model, there are two groups of variables: environmental influences and individual differences, which influence consumer decision processes. Among the environmental variables, however, culture is listed first, followed by social class, personal influences, family, and situation (Engel, Blackwell and Miniard 1993). Culture impacts consumer decision-making process along with the four environmental variables. It is expected that recognition for a given brand, especially in terms of brand awareness and need, may vary greatly in differing cultural environments. Further, the alternatives that are identified, as well as their evaluations, are likely to differ for dissimilar cultures. In turn, purchase intention evaluations of particular brands may also reflect strong cultural preferences.

Furthermore, evidence has also shown the role of culture in advertising. Advertising is considered as a form of social communication that reflects the cultural values of a society (Andrews, Lysonski and Durvasula 1991; Khairullah 1995). Cultural values and characteristics are embedded in advertisements where audiences can find similarity between themselves and the characters in the advertisements. Therefore, culture impacts how consumers perceive, process and accept advertising messages (Khairullah 1995).

Indeed, scholars began to be interested in the need for relating advertising to culture three decades ago. Singh and Hung (1962) found that American print-media advertisements could not be effective in India, as their appeal runs counter to indigenous cultural values. Lenormand (1964) also demonstrated that standardized advertising is impossible in Europe, because insurmountable cultural barriers hamstring European countries. Since the 1970s, many analytical studies have been devoted to the cultural

values manifest in advertising. For instance, Pollay (1983) developed a coding framework in his seminal research to measure cultural values in advertising. Several cross-cultural studies have also focused on the comparison of Eastern and Western cultural effects on advertising. Mueller (1987) found that cultural appeals used in Japanese and American magazine advertisements tend to differ significantly. More recently, there has been increasing scholarly interest in the effects of different advertising appeals in China and the United States. For example, Zhang and Gelb (1996) focused on the match between values expressed in advertising and values in each of Chinese and American cultures, and found that culturally congruent appeals are more effective in general.

As discussed before, individuals in North America prefer an independent relationship one with another and individual goals take precedence over group goals. Conversely, people in China prefer interdependent relationships with each other within a collectivity and group goals take precedence over individual goals. In other words, North Americans focus on individual benefits while Chinese pay attention to group benefits. Such cultural values are considered not only as the governing ideas and directing principles for thoughts and actions in a given society (Srikandath 1991), but also as a powerful force to shape consumers' life styles, motivations and product choices (Tse, Belk and Zhou 1989). Particularly, the cultural values are embedded in advertising and used by advertisers to communicate how their products will meet customer needs and wants (Arens and Bovee 1994). Obviously, cultural values affect advertising design, and advertising also needs to reflect the cultural differences. Researchers have suggested that cultural values are the core of advertising messages. The typical advertisements endorse,

glamorize and inevitably reinforce the cultural values. Culture and advertising impact each other (Pollay and Gallagher 1990). Thus, understanding cultural differences should be regarded as a prerequisite for successful international advertising.

A few researchers have addressed comparative research to understand how culture influences consumer behavior and advertising in different countries, but they do not offer any insight into what components, which may reflect cultural values and norms, influence consumer attitudes and purchase behaviors. In addition, little research has been done to understand how consumers process advertising information and evaluate the advertised brand, as well as make a brand choice in a competitive environment in different countries.

## 2.3 Summary

Based on the literature on advertising information processing and consumer brand choice behavior, this chapter discussed six models on consumer brand choice processes. The findings from this review indicate that each of these models cannot correctly describe the effects of advertising on consumers' attitudes and behaviors. For example, the dual mediation model fails to take ad affect and confidence in evaluating a brand into account, and it does not include competition. The competitive vulnerability model includes competition, but it lacks the fundamental constructs such as ad cognition and ad affect. Furthermore, all these models were developed in North America. My review has shown that culture affects how consumers process and accept advertising messages and in turn influences consumers' purchase intentions. In order to improve the validity of the six models, they should be examined across cultures, since culture influences advertising and consume purchase behavior.

# Chapter Three

## Research Framework and Hypotheses

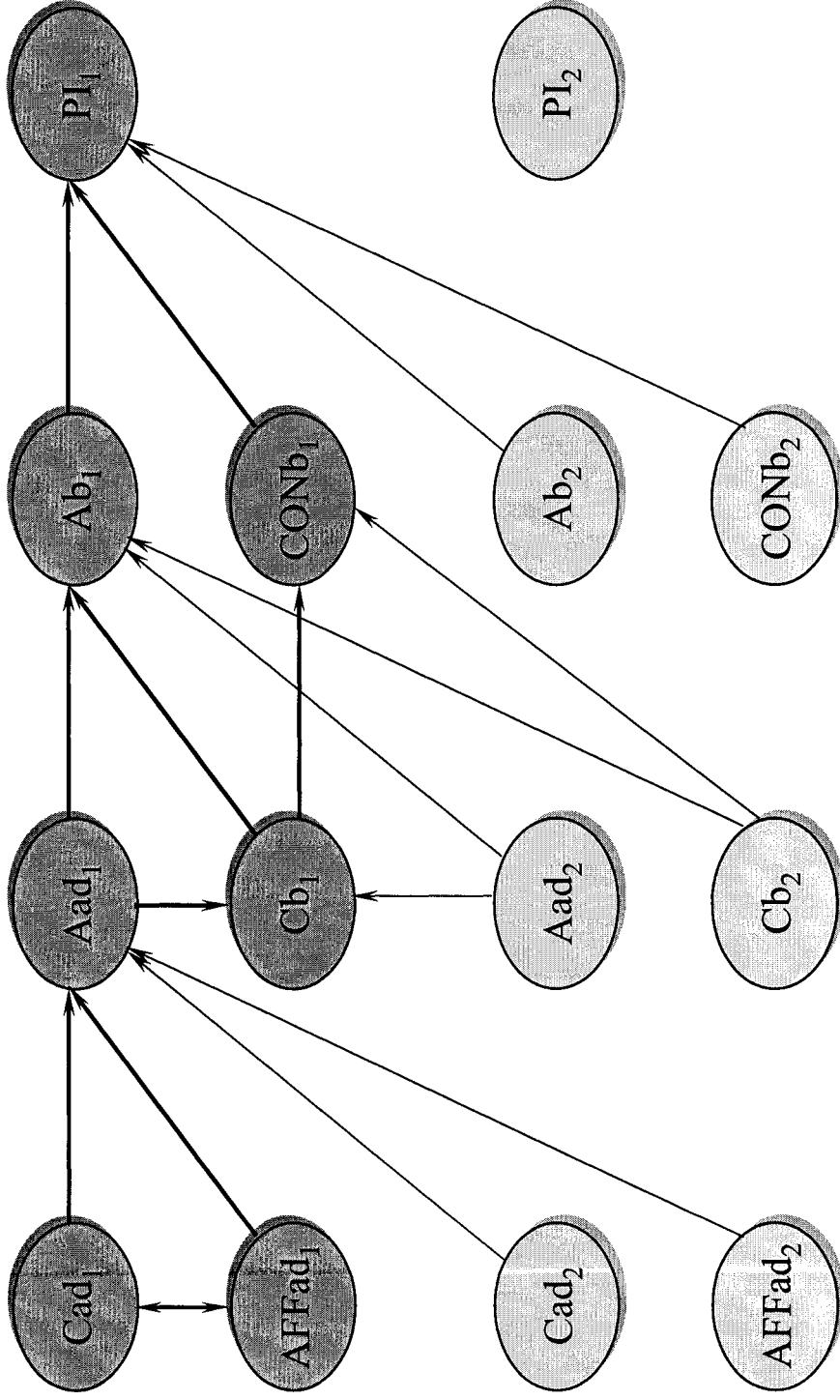
Usually a key goal of an ad is to change consumers' attitudes in a direction more favorable to the brand in the ad. Various studies have demonstrated the widely accepted dual mediation model, which supports that attitude toward the ad (Aad) not only directly influences attitude toward the brand (Ab), but also indirectly affects Ab through brand cognitions (Cb). Ab, in turn, determines purchase intention toward that brand (Brown and Stayman 1992; Gardner 1985; MacKenzie and Lutz 1989; MacKenzie, Lutz, and Belch 1986). On the other hand, numerous researchers have supported Laroche's competitive vulnerability model (Laroche and Brisoux 1989; Laroche, Kim and Zhou 1995 & 1996; Laroche and Sadokierski 1994; Laroche 2002; Laroche and Teng 2001). The model suggests that one consumer's cognitive evaluations of a particular brand and other brands not only influence her/his attitudes toward the focal brand and competing brands, but also impact her/his confidence in evaluating the focal brand and competing brands within a consideration set. Consequently, both her/his brand attitudes and confidence determine her/his purchase intentions of the focal brand and competing brands. Obviously, the dual mediation model neglects the competitive effects of competing brands in other ads on a particular advertised brand while Laroche's model lacks the links of ad cognition (Cad) and ad affect (AFFad). By integrating the dual mediation model and the competitive vulnerability model, I propose a comprehensive consumer brand choice model, which is

named as an extended competitive vulnerability model. It provides a comprehensive understanding of the effects of competing ads and brands on a focal ad and brand on consumers' ad cognitive and affective reactions, ad attitudes, brand cognitions, brand attitudes, and confidence in evaluating a brand as well as purchase intentions toward a brand. Competitive effects among these constructs are taken into account simultaneously within a single conceptual framework. Furthermore, the extended competitive vulnerability model is extended to a multicultural setting (e.g., North American and Chinese cultures) to examine whether the proposed consumer brand choice model is invariant across North American and Chinese cultures. From a cross-cultural perspective, therefore, this chapter also addresses the interaction effects of culture-laden advertising appeals, argument strengths and culture-laden pictures on consumer attitudes, and purchase intentions in a competitive environment. In short, the proposed model can comprehensively explain the effects of advertising on consumers' attitudes, and purchase behavior, in a multiple-ad and multiple-brand environment.

### 3.1 An extended competitive vulnerability model

The primary goal of this section is to offer detailed descriptions and explanations about the extended competitive vulnerability model, which is shown in Figure 3.1. This model depicts the consumer brand choice process within which a particular brand in a focal ad and the competing brand in the second ad, are expected to interact and compete with each other to influence consumers' attitudes and purchase behavior. In order to simplify the proposed model, the Figure 4.1 only shows the competitive effects of the competing ad and brand on the focal ad and brand. This model is applicable into a multiple-ad and multiple-brand environment.

**Figure 3.1 Extended Competitive Vulnerability Model**



Cad<sub>1</sub> = Ad Cognition for ad1; AFFad<sub>1</sub> = Ad affect for ad1;  
 Aad<sub>1</sub> = Attitude toward ad1; Cb<sub>1</sub> = Brand cognition for brand1;  
 Ab<sub>1</sub> = Attitude toward brand1;  
 CONb<sub>1</sub> = Confidence in evaluating brand1;  
 PI<sub>1</sub> = Purchase intention toward brand1;

The terms used in the extended competitive vulnerability model are defined as follows:

1. Focal ad: In the study, one of the selected ads is taken as a focal ad and others are considered as competing ads.
2. Focal brand: It refers to a brand in the focal ad. Similarly, brands in the competing ads are viewed as competing brands. Any brand advertising could take different forms to enhance  $A_{ad}$  and  $A_b$  in order to attract consumers to choose the advertised brand.
3. Cognition toward the focal ad: This refers to consumers' cognitive responses about the focal ad.
4. Affect toward the focal ad: This refers to consumers' affective responses about the focal ad.
5. Attitude toward the focal ad: This pertains to consumers' evaluations of the focal ad after exposure to the ad.
6. Cognition toward the focal brand: This refers to consumers' beliefs about the focal brand in the focal ad.
7. Attitude toward the focal brand: This refers to consumers' evaluations of the focal brand in the focal ad.
8. Confidence in evaluating the focal brand: This indicates consumers' level of self-trust in evaluating the focal brand in the focal ad.
9. Purchase intention toward the focal brand: This refers to the likelihood of buying the focal brand in the focal ad.

According to Figure 3.1, the extended competitive vulnerability model attempts to describe the effects of advertising on consumer brand choice in a multiple-ad and multiple-brand environment. The consumers' brand choice decision involves several steps:

- (1). Consumers are exposed to several ads and assess ad information and messages to form cognitive and affective reactions with respect to a focal ad (Cad and AFFad);
- (2). They evaluate their cognitive and affective responses toward the focal ad to form attitude toward that ad (Aad), while considering the cognitive and affective effects of other competitive ads;
- (3). They assess their attitude toward the focal ad to form cognitions toward the brand (Cb) in the focal ad while considering the Aad effects of other competitive ads;
- (4). They evaluate their cognitions toward the focal brand in the focal ad, and attitude toward that ad, to form attitude toward that brand (Ab), while considering the Aad effects of other competitive ads and Cb effects of other competitive brands in other competitive ads. Similarly, they assess their cognitions toward the focal brand in the focal ad to form confidence in evaluating that brand (CONb) while considering the Cb effects of other competitive brands in other competitive ads;
- (5). They develop a consideration set of brands in ads, among which the choice process will be pursued further;
- (6). They assess their attitude to and confidence in evaluating the focal brand in the focal ad to form purchase intention (PI) toward that brand while considering the Ab and CONb effects of other competitive brands within the consideration set.



Overall, each process of consumer brand choice involves the same sequence in which ad cognition and affects (Cad and AFFad) are formed first, followed in order by Aad, Cb, Ab and CONb and PI. It is a sequential process. Each factor influences another in two different ways. For example, cognitions of a particular ad may result in an interest to further evaluate the particular ad. This in turn creates a favorable attitude toward the focal ad. Second, cognitions of a particular ad may also lead consumers to think about competing ads, and to form evaluative attitudes toward each competing ad. Different brands in different ads are treated in an evaluative and comparative frame of reference before a choice is made.

More detailed explanations on the extended competitive vulnerability model are as follows:

### 3.1.1 Competitive Cad and AFFad effects on Aad

Attitudes are important to advertisers, since they determine how consumers evaluate different brands in a product category, and then choose a particular brand. Some research has tried to focus on better understanding the antecedents of Aad (Homer 1990; Lutz, MacKenzie, Belch 1983; MacKenzie and Lutz 1989; MacKenzie, Lutz, and Belch 1986). Based on Petty and Cacioppo's (1981) Elaboration Likelihood Model, Lutz, MacKenzie, and Belch (1983) developed a conceptual model depicting a number of determinants of Aad, including both central and peripheral antecedents, which are two basic routes to change attitudes. The central route to process message information persuasion refers to attitude change due to recipients' actively thinking about the content of the persuasive message. The thoughts about the ad's characteristics itself (e.g., the contents of the ad copy, the headline, the creative platform, the ad images and so on)

during ad exposure are viewed as cognitive responses, which determine Aad formation (Edell and Burke 1987). In contrast, the peripheral route reflects attitude change stemming from ancillary aspects of a persuasive message. Feelings elicited during ad exposure, or affective responses, also influence Aad and the brand being advertised. For example, Yi (1990) found that ad context can induce feelings among ad recipients, which, in turn, influence Aad, as affectively priming subjects (via a magazine article that induces positive or negative feelings) significantly affect Aad.

The role of cognitive and affective effects on Aad directly, and on Ab indirectly, through Aad is well established in the literature. Numerous studies have stated that an ad context can influence ad and brand evaluations (Burke and Edell 1989; Hastak and Olson 1989; Keller 1991; Singh and Churchill 1987; Yi 1990). For example, the advertising context can activate certain salient attributes of a brand to readers, and direct their interpretations of the product information in the ad. In turn, these interpretations may lead to form or change their beliefs about the advertised brand, as well as impact their brand evaluations (Mitchell and Olson 1981). Yi (1990) also found that priming a certain attribute increases the likelihood that this attribute will be more likely used in processing product information, and will finally influence advertising effectiveness and evaluations of the ad. This is referred to as the effect of cognitive responses. The cognitive responses are a result of the conscious processing of specific execution elements in an ad (e.g., perception of execution, copy, presentation style and so on) and “the thoughts and ideas evoked by persuasive message” (Shavitt and Brock 1986 p.150). The formation of cognitive responses reflects an important mediating process leading to attitude changes.

In addition, the advertising context can also generate, and induce, a reader's overall affective reactions. When induction occurs, the affect can be transferred to her/his attitude toward the ad, which subsequently may impact her/his brand evaluations (MacKenzie, Lutz, and Belch 1986). Affective responses play an important role on the advertising context, since feelings may not only be triggered very quickly (Zajonc 1980), but may also settle to influence subsequent processing (Gardner 1985). As Lutz (1985) suggested, the determinants of Aad are not all cognitively based responses to an ad. Other Aad determinants such as the moods elicited by the ad are simply the individuals' affective state at the exposure to the ad. Holbrook and Batra (1986) found that emotional responses directly influence Aad and, indirectly impact Ab through Aad. Goldberg and Gorn (1987) demonstrated that mood evoked by a television program carried over to the subject's felt mood while he/she watched the commercial. The subject's evaluations toward the commercial were impacted by the nature of the program. Therefore, the happy program generated greater ad effectiveness and more positive responses while the sad program induced negative responses. Edell and Burke (1987) have also shown that feelings induced during ad exposure are important predictors of Aad and Ab, and that Aad mediates the effects of feelings on Ab. Moreover, research in psychology has also found that affective reactions can be automatically primed by the mere presence of an object, and that these affective reactions impact subsequent perceptions and evaluations (Fazio 1986). Thus, affect induced by an ad may affect attitude toward the ad, and thereby influence subsequent evaluations of the advertised brand. I call this an effect of affective response. The affective response is seen as those emotional reactions (e.g., love, happiness, sorrow and so on) which occur with little or no conscious processing of

specific advertising elements (Shimp 1981). Overall, the attribute-based cognitive responses discussed earlier, as well as the affective responses generated by advertising stimulus, have an influential role on the formation of Aad and on the subsequent processing in the persuasion process.

I have discussed the distinction between cognitive and affective responses. Now, the question is: what is the relationship between the two responses. Lutz (1985) indicated that cognitive antecedents are perhaps direct determinants of affective responses to advertising stimuli. Advertising may influence individual responses by inducing mood states from an ad context. On the other hand, individuals who have good feelings may readily generate positive associations toward processing more ad messages. Affect induced by exposure to an ad may enhance the learning of affect-congruent message arguments (Gardner 1985). Ad-induced affective responses impact brand attribute evaluations. Likewise, Homer and Yoon (1992) found that direct and indirect relationships between emotional responses and Aad exist. In other words, emotional responses influence Aad directly and indirectly via Cad. Therefore, cognitive and affective responses are distinct, but they are related and impact each other. For example, an attractive picture in an ad may induce an individual's good feelings reaction to the ad as soon as s/he views it. With good feelings, the individual remembers and judges the picture easily, and s/he is more likely motivated to process more ad information. In turn, both cognitive and affective responses determine the ad evaluation. Burke and Edell (1989) have also argued that the cognitive and affective responses intertwine to influence Aad, and are not separate. However, the correlation between cognitive and affective responses has not been examined in the previous research. Therefore, I hypothesize that:

**Hypothesis 1:** Consumers' cognitive responses and affective responses toward an ad are correlated when they are exposed to the ad.

On the basis of the previous discussions, it is more likely that both cognitive, and affective, responses toward an ad influence the evaluations of the same ad. However, any ad does not exist in a vacuum, and it competes with other ads, so that one consumer's general perceptions of other ads may have negative effects on her/his attitude toward the focal ad. Therefore, this paper extends the  $Cad/AFFad \rightarrow Aad$  relationship to a choice context. It is expected that one consumer's Aad not only depends on her/his cognitive, and affective, reactions toward a focal ad, but also on her/his cognitive and affective responses of the competing ads. This leads to the hypothesis that:

**Hypothesis 2:** Consumers' attitudes toward a focal ad ( $i_a$ ) are positively impacted by both their cognitive evaluations of, and affective reactions to, the same ad ( $i_a$ ) while their attitudes toward a focal ad are negatively impacted by both their cognitive evaluations of, and affective reactions to, competing ads ( $j_a, i_a \neq j_a$ ).

### 3.1.2 Competitive Aad effects on $C_b$

Aad refers to recipients' cognitive and affective reactions to an ad itself (Yi 1990) while  $C_b$  indicates recipients' perceptions of the advertised brand in an ad (Lutz, MacKenzie and Belch 1983). Numerous studies demonstrate that a favorable evaluative Aad may result in favorable brand beliefs (Biehal, Stephens and Curlo 1992; Lutz, MacKenzie and Belch 1983). For example, support arguing may result in a favorable Aad and then increase the strength of existing beliefs of the brand in the ad. However, counter-arguing with an ad that processes a specific attribute is likely to decrease one's Aad and, in turn, reduce her/his strength of beliefs toward the advertised brand. Thus,

Aad mediates the effect of ad content on change in Cb. Research (Yi 1990) also indicates that affective reactions to an ad might influence affective reactions to the advertised brand. Positive or negative feelings associated with an ad may become associated with the advertised brand in the ad. Furthermore, MacKenzie, Lutz, and Belch (1986) explain the influence of Aad on brand cognitions as follows (p.132):

“...the Aad → Cb linkage represents the notion of ad affect as one of a general class of persuasion “cues” (Fishbein and Ajzen 1975) that can enhance or diminish the acceptance of message content. It is worthwhile to note that the DMH, by its inclusion of the Aad → Cb link, departs from the ELM posited by Petty and Cacioppo (1981). ...”

In addition, MacKenzie, Lutz, and Belch (1986) argue that as ad message involvement decreases and ad execution involvement increases, the influence of Aad on Cb should increase due to the documented effects of peripheral cues on object perceptions. Brown and Stayman (1992) confirm that the Aad-Cb link is robust across a majority of studies. Aad influences Ab both directly, and indirectly, by means of Cb. The underlying rationale is that an individual’s overall reactions to an ad impact her/his propensity to accept the ad message content (Coulter and Punj 1999). This seems to be the more popular view that a positive (negative) Aad may yield more (less) favorable Cb (MacKenzie, Lutz, and Belch 1986). Incorporating competitive effects into consumer brand choice process, and in consistent with extant theory in the dual mediation model, I thus hypothesize that:

**Hypothesis 3:** Consumers' brand cognitions toward a focal brand ( $i_b$ ) in the focal ad ( $i_a$ ) are positively impacted by their attitudes toward the same ad ( $i_a, i_a \neq i_b$ ), while their brand cognitions toward a focal brand are negatively impacted by their attitudes toward the competing ads ( $j_a, i_a \neq j_a$ ).

### 3.1.3 Competitive A<sub>ad</sub> and C<sub>b</sub> effects on A<sub>b</sub>

Ajzen (1993) argue that most contemporary social psychologists prefer the cognitive approach to attitude formation. They believe that attitudes develop from the beliefs that people hold about an object. The object is associated with certain attributes and characteristics. A positive or negative valence is assigned to each attribute, and all attributes are accumulated to form the attitude. However, only the salient and important attributes can come to an individual's mind to influence her/his formation of attitude toward the object. Therefore, for exposure to an ad, an individual's cognitive evaluations, such as beliefs toward the brand in the ad, determine her/his attitude toward the same brand. Although some studies argue that brand cognitions might not have a significant effect on brand attitudes (MacKenzie and Lutz 1989), the meta-analysis of Brown and Stayman suggested that ad attitudes have substantial, and significant, influence on brand attitudes via brand cognitions. In other words, the results of their meta-analytic study support the idea that brand cognitions significantly affect brand attitudes. For example, consumers considering buying a new car often scrutinize car ads to determine which features various models have. A comfortable perception of the attributes of the brand in a car ad may result in a favorable attitude toward the advertised car.

In addition, the consumers' prior beliefs of other competing cars may also simultaneously influence their attitude toward the particular car in the current car ad. This is one reason why experienced consumers are more likely to use their prior experience about the main attributes of different brands to discriminate a particular brand from other brands. One consumer's attitude toward a particular brand not only depends on her/his cognitive evaluations of the brand, but also depends on her/his perceptions of the competing brands within the choice set. Numerous studies provide strong evidence to support this contention. For example, Woodside and Clokey (1974) propose that one consumer's beliefs toward competing brands partially impact her/his attitude toward a focal brand and in turn determine her/his intention to buy this brand. Other researchers (Laroche, Kim and Zhou 1996) also argue that Cb could affect consumer behavior in two different ways. First, it may create a favorable attitude toward the focal brand while resulting in unfavorable attitude toward the competing brands. Second, it may increase consumers' confidence in evaluating the focal brand, while decreasing consumers' confidence in evaluating the competing brands (later, the author will discuss how Cb influences confidence toward a focal brand within a consideration set). Particularly, Laroche and his colleagues examine the influence of competitive brands on attitude formation (Laroche and Teng 2001; Laroche, Kim and Zhou 1996; Laroche, Hui and Zhou 1994). Findings from their empirical studies show that an individual's cognitive evaluations of a particular brand and other brands determine her/his attitude toward the focal brand. However, the influence of the focal brand cognitive evaluations on attitude toward the same brand is positive while that of the competing brands is negative.



Moreover, the dual mediation model proposes that attitude toward an ad has a direct and indirect influence on brand attitude (MacKenzie, Lutz and Belch 1986). In the study of meta-analysis, Brown and Stayman (1992) also conclude that a significant relationship between A<sub>ad</sub> and A<sub>b</sub> exists. A<sub>ad</sub> has practical implications for marketers and advertisers interested in designing and pretesting advertisements. Consumers' affective reactions to an ad may inspire their affective reactions to the brand in the ad, since a likable ad may create a favorable impression on consumers, which in turn may give the advertised brand a competitive edge in the market. A favorable attitude toward an ad often leads to a favorable evaluation of the brand in the ad. Furthermore, a strong positive attitude toward an advertisement might turn into brand preference, consciousness and loyalty (Russell and Lane, 1993). However, any ad competes with other ads in the markets, so one consumer's generally positive responses to other ads may have a negative influence on her/his attitude toward the advertised brand in the particular ad. Therefore, this paper extends the A<sub>ad</sub>-A<sub>b</sub> relationship to a competitive environment. It is expected that one consumer's attitude toward a brand in an ad depends on her/his attitude toward the same ad, and her/his attitudes toward other competing ads.

Overall, both A<sub>ad</sub> and C<sub>b</sub> determine the formation of A<sub>b</sub>. Taking the competitive effects into account (Laroche and Teng 2001; Laroche, Kim and Zhou 1996; Laroche, Hui and Zhou 1994) and remaining consistent with the literature (MacKenzie, Lutz and Belch 1986; Brown and Stayman 1992), I therefore hypothesize that:

**Hypothesis 4:** Consumers' attitudes toward a focal brand ( $i_b$ ) in the focal ad ( $i_a$ ) are positively impacted by both their attitudes toward the same ad ( $i_a$ ,  $i_a \neq i_b$ ) and brand cognitions toward the same brand ( $i_b$ ), while their attitudes toward a focal brand are negatively impacted by both their attitudes toward the competing ads ( $j_a$ ,  $j_a \neq i_a$ ) and brand cognitions toward the competing brands ( $j_b$ ) in the competing ads ( $j_a$ ,  $j_a \neq j_b$  and  $i_a \neq j_a$ ) in the consideration set.

### 3.1.4 Competitive Cb effects on CONb

Howard (1989) defined confidence as "the buyer's degree of certainty that his/her evaluative judgment of the brand is correct (p. 34)." This definition suggests that confidence not only pertains to the buyer's overall belief in a particular brand, but also involves the buyer's ability to evaluate the attributes of the brand. Familiarity with the brand increases the ability to efficiently comprehend and use the new information related to the brand (Laroche, Kim and Zhou 1996; Urbany, Dickson and Wilkie 1989). Consumers who know about the brands such as the attributes, the importance of such attributes, and the performance of the brand on such attributes can discriminate these brands easily and confidently in one product category. Some researchers have confirmed that a consumer's confidence in evaluating a particular brand is a function of her/his familiarity with that brand (Laroche, Kim and Zhou 1996; Park and Lessig 1981). At low levels of familiarity, consumers are not able to discriminate enough in their brand choices. This can explain why experienced consumers may have prior knowledge about the attributes of various brands and know which attributes are the most important in choosing an appropriate brand successfully. As a result, they are more likely to purchase a brand with a high degree of confidence in evaluating that brand. This may suggest that

confidence reflects one's conviction in her/his beliefs about a brand, since s/he should have greater confidence in evaluating the brand when s/he receives better cognitions toward the same brand. Therefore, I hypothesize:

**Hypothesis 5:** Consumers' confidence in evaluating a focal brand ( $i_b$ ) in the focal ad ( $i_a$ ) is positively impacted by their brand cognitions toward the same brand ( $i_b$ ,  $i_a \neq i_b$ ), while their confidence in evaluating a focal brand is negatively impacted by their brand cognitions toward the competing brands ( $j_b$ ) in the competing ads ( $j_a$ ,  $j_a \neq j_b$  and  $i_a \neq j_a$ ) in the consideration set.

### 3.1.5 Competitive Ab and CONb effects on PI

A purchase intention is one type of judgment about how an individual intends to buy a specific brand. Some variables such as considering and expecting buying a brand measure purchase intention (Laroche, Kim and Zhou 1996; Laroche and Sadokierski 1994; MacKenzie, Lutz and Belch 1986). To form a purchase intention toward a focal brand requires making explicit overall evaluations of all brands of the product category. Even if there is only one brand, a purchase intention probably is formed with regard to it.

In the advertising literature, numerous studies demonstrate that attitude toward a brand in an ad significantly impacts intentions to buy that brand (Brown and Stayman 1992; Homer 1990; MacKenzie, Lutz and Belch 1986). In the consumer choice behavior literature, some researchers also indicate that there is a significant positive relationship between brand attitude and intention (Abe and Tanaka 1989; Fishbein and Ajzen 1975). Furthermore, Laroche and Brisoux (1989) propose a multi-brand model of intentions, where different brands compete along their overall attitude evaluations in determining the consumer's intention to choose a specific brand. They classify the influence of attitude

toward a focal brand on purchase intention toward the brand as a direct effect, and the influences of attitude toward other brands on intention to buy that focal brand as a competitive effect. The findings show that the direct effect positively impacts intention to buy the focal brand, while the competitive effect negatively affects intention to purchase that brand. Therefore, one consumer's intention to buy a focal brand is determined not only by her/his attitude toward the same brand, but also by her/his attitudes toward other brands within the consideration set. More recently, several studies provide further evidence to support this argument (Laroche, Hui and Zhou 1994; Laroche, Kim and Zhou 1996; Laroche and Teng 2001).

Moreover, evidence also indicates that confidence is one of the determinants of purchase intentions, and plays a key role in predicting intentions to buy (Bennett and Harrell 1975; Laroche, Kim and Zhou 1996; Laroche and Sadokierski 1994). For example, Laroche and Sadokierski (1994) show that intentions to choose an investment firm depend on confidence in their evaluations of the firm. Particularly, confidence in a particular brand contributes much stronger effect on intentions than attitude toward the same brand. More recently, Laroche, Kim and Zhou (1996) confirmed the relationship between confidence and intention in the consumer brand selection process, as well as the effects of competitive brands on intention to purchase a focal brand within this process.

Together, brand attitude and confidence contribute the formation of purchase intention. They play an important role in predicting consumer intention behavior. Therefore, the following hypothesis is developed:

**Hypothesis 6:** Consumers' purchase intentions toward a focal brand ( $i_b$ ) in the focal ad ( $i_a$ ) are positively impacted by both their attitudes toward and confidence in the same brand ( $i_b$ ,  $i_a \neq i_b$ ), while their purchase intentions toward a focal brand are negatively impacted by both their attitudes toward and confidence in the competing brands ( $j_b$ ) in the competing ads ( $j_a$ ,  $j_a \neq j_b$  and  $i_a \neq j_a$ ) in the consideration set.

## 3.2 Culture, advertising and competition

### 3.2.1 Measures of the proposed model across cultures

As I discussed in Chapter 2, there are differences and similarities between North American and Chinese cultures. On the one hand, those cultural characteristics such as cultural values and norms may lead to different modes that deal with consumer decision-making (Radford et al. 1991). On the other hand, consumers' beliefs, attitudes, and intentions in decision-making processes may be expressed in a similar way in different cultures (Mathur 1998). In addition, although some researchers argue that culture should be considered as a key variable in consumer purchase behavior (Engel, Blackwell, and Miniard 1989), relatively little research has been done in a cross-cultural advertising context (Lin 2001). Therefore, another objective of this work is to extend the proposed model to a multicultural setting across North American and Chinese consumers to look at the generalizations of the framework and shed some light on the apparent disparity in the cross-cultural decision making literature. This work first examines whether the items comprising the extended competitive vulnerability model operate invariantly across Chinese and North American consumers. I hypothesize that:

**Hypothesis 7:** The measures of ad cognitions, ad affects, ad attitudes, brand cognitions, brand attitudes, brand confidence in evaluating a brand and purchase intentions in the consumers' competitive brand choice process are similar across North American and Chinese consumers.

### 3.2.2 Factorial structure of the proposed model across cultures

Marketing research has dealt extensively with the effect of culture on behavior in general and with behavioral differences across cultures. However, relatively little is known about consumer brand choice process because the relations among Cad, AFFad, Aad, Cb, Ab, CONb and PI have not been examined across cultures or countries. Given the importance of advertising as a cross-cultural marketing tool, testing the factors which impact consumer attitudes and purchase behaviors, as well as examining their relationships cross-culturally, is an important step in assessing the cultural values of ad effectiveness. Relying on a wealth of knowledge regarding camera brands, North American and Chinese consumers probably follow a very similar brand choice process. If marketing universals exist (Dawar and Parker 1994), then the proposed extended competitive vulnerability model should be independent of the consumers' cultural orientation. I therefore hypothesize that:

**Hypothesis 8:** The factorial structure of the consumers' competitive brand choice process is similar and the structural parameters are variant across North American and Chinese consumers.

### 3.2.3 Advertising appeals and argument-based persuasions

Berkman and Gilson (1987) define an advertising appeal as “the creative attempt to motivate consumers toward some form of activity, or to influence attitudes toward a product or service.” Some cross-cultural researchers have included advertising appeals in their studies (Albers-Millen and Gelb 1996; Cheng 1994; Khairullah 1995; Lin 2001; Mueller 1987; Zandpour, Chang and Catalano 1992; Zhang and Gelb 1996). Their findings suggest that different cultures seem to emphasize different advertising appeals in which cultural values, norms and characteristics are embedded. It is possible that individualists differ from collectivists in their cognitive and affective responses to advertising appeals, depending on which cultural values and interests these appeals manifest. Research indicates that Western commercials commonly use appeals that reflect individualism, independence, self-sufficiency and self-achievement (Zandpour, Chang and Catalano 1992). Individualists evaluate an individualistic - laden advertising appeal more favorably than collectivists. For example, the camera advertising with a headline of “come and indulge in the joy of self-expression” receives higher scores in North American respondents (Zhang and Gelb 1996).

However, collectivism, harmony, oneness with nature and veneration for the elderly dominate Chinese culture. Most prior studies of advertising in China have shown that Chinese commercials generally and clearly reflect traditional Chinese cultural values (e.g., an emphasis on family/group and respect for elders) in advertising content and strategy (Zhang and Gelb 1996; Cheng 1994). If these cultural values and social norms are embedded in an ad, the Chinese will evaluate this ad more emphatically than North Americans will. For instance, the camera advertising with a headline of “share the moments of joy and happiness with your friends and family” receives higher scores in

Chinese respondents (Zhang and Gelb 1996). Therefore, capturing advertising appeals may offer a window to understand how individualists and collectivists process ad information differently. However, it should be noted that whereas the results cited above are based on marketing and advertising literature, this study focuses on how a culture-laden advertising appeal interacts with arguments / a culture-laden picture to influence consumers' attitude and purchase behavior in a multiple-ad and multiple-brand environment.

Argument strength, or a viewer's perception that a message's arguments are strongly or weakly relevant to forming a reasoned opinion, is central to the dual mediation model in examining the persuasiveness of messages (MacKenzie, Lutz, and Belch 1986; Petty and Cacioppo 1986). When elaboration is high, subjects discriminate more between strong and weak message arguments. An ad containing strong message arguments induces predominantly favorable cognitive responses to the ad and the advertised brand. Conversely, an ad including weak message arguments elicits primarily unfavorable cognitive responses about the advocacy (MacKenzie, Lutz, and Belch 1986; Petty and Cacioppo 1986).

In today's market, consumers are faced with numerous ads and advertised brands. In order to make a choice decision, they have to differentiate one from another based on ad information and brand characteristics. Similarities between ads and the advertised brands may reduce the impact on consumers' thoughts, feelings, and judgmental consequences. For example, if the advertising appeals of two ads in one product category share common "design" ideas such as considering recipients' cultural values, social norms and so on the recipients may make less use of the appeals to distinguish the two



ads and their advertised brands. In this situation, the recipients are more likely to engage in a more extensive search in order to discriminate between the two ads and brands. Argument strength primarily determines recipients' thoughts, consequent evaluations, and judgments. However, when the advertising appeals of two ads in a product category have different "design" ideas: one reflects collectivistic cultural values and the other focuses on individual benefits, incorporating argument strength, may have either a positive or a negative impact on consumer attitude and purchase behavior compared with argument-based persuasion alone, depending on whether the consumer is individualist or collectivist.

Furthermore, the goal of an ad is to change consumer attitudes to be direction more favorable to its advertised brand. In turn, it influences consumer purchase of that brand. However, consumer purchase intentions toward a focal brand in a focal ad not only depend on their attitudes toward this brand, but also on their attitudes toward competing brands in competing ads (Laroche 2002; Laroche, Kim and Zhou 1995 & 1996; Laroche and Teng 2001; Laroche, Takahashi, Kalamas and Teng 2003). Hence, a focal ad with a culturally congruent appeal and strong arguments may have a greater interaction effect on consumer attitude and purchase behavior when competing ads contain culturally incongruent appeals. Consequently, I hypothesize that:

**H9a:** North American consumers will rate a focal ad, containing an individualistic appeal and strong arguments, higher on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals.

**H9b:** North American consumers will rate a focal ad, containing a collectivistic appeal and weak arguments, lower on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**H9c:** Chinese consumers will rate a focal ad, containing a collectivistic appeal and strong arguments, higher on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**H9d:** Chinese consumers will rate a focal ad, containing an individualistic appeal and weak arguments, lower on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals.

### 3.2.4 Advertising appeals and picture-based persuasions

Pictures enhance the influence of ad persuasions (Miniard et al. 1991; Mitchell 1986). Evidence shows that pictures are more arresting and can presumably activate visual and verbal message learning and processing by enhancing the remembering of other semantic information (Childers and Houston 1984; MacKenzie, Lutz and Belch 1986; Miniard et al. 1991). In addition, some researchers posit that a picture is more influential simply because it evokes affective responses (Mitchell 1986; Mitchell and

Olson 1981). Affective responses play an important role in the persuasion process (Burke and Edell 1989; Edell and Burke 1987; Holbrook and Batra 1987). Research also demonstrates that an ad with an affect-laden picture may evoke affective responses that are associated with the advertised brand. Use of this kind of picture in print advertising can lead to favorable ad attitudes (Mitchell 1986) and brand attitudes (Dickson et al. 1986; Mitchell 1986; Mitchell and Olson 1981), and in turn influence purchase intents (Miniard et al. 1991; Mitchell 1986). Therefore, ad-induced emotions may have a direct effect on attitude formation (Edell and Burke 1987; Holbrook and Batra 1987). Positive and negative affect-laden pictures can alter consumer attitude. Specifically, when a congruent culture-laden picture is embedded in an ad, it may create more favorable ad and brand evaluations, because the picture can elicit positive feelings.

However, little is known about the role of pictures expressing cultural values in advertising. In this regard, a pertinent question may be: when a culture-laden picture interacts with a culture-laden advertising appeal, how does it enhance consumer attitude and purchase behavior? For example, a North American viewing an ad containing an individualistic culture-laden picture may have more favorable responses, because the picture identifies a culture which strikes a responsive chord with her/his ego and individual cultural values. However, an ad including an individualistic culture-laden advertising appeal with a collectivistic culture-laden picture may elicit unfavorable responses, since the picture and appeal is are culturally congruent and the picture may offset the responsive chord elicited by the appeal. As Miniard et al. (1991) argue, the appropriateness is likely to generate positive cognitions and affects while inappropriateness is likely to trigger negative cognitions and affects. Consumers'

thoughts and feelings generated by the appropriateness of an advertising appeal and picture may influence their attitudes and product evaluations. Thus, a culture-laden picture and appeal are embedded in an ad, when both match the cultural values and norms of the viewer, they may create greater favorable responses than each of them alone. More specifically,

**H10a:** North American consumers will rate a focal ad, containing an individualistic appeal and a picture expressing individualistic cultural values, higher on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals.

**H10b:** North American consumers will rate a focal ad, containing a collectivistic appeal and a picture expressing collectivistic cultural values, lower on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**H10c:** Chinese consumers will rate a focal ad, containing a collectivistic appeal and a picture expressing collectivistic cultural values, higher on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**H10d:** Chinese consumers will rate a focal ad, containing an individualistic appeal and a picture expressing individualistic cultural values, lower on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals.

### 3.3 Summary

This chapter completes the discussion of the extended competitive vulnerability model and the research hypotheses emerging from it. To summarize, the model is borrowed from the dual mediation model (MacKenzie, Lutz, and Belch 1986) and the competitive model (Laroche, Kim and Zhou 1996; Laroche and Sadokierski 1994; Laroche and Teng 2001). It posits that the consumer brand choice process within which advertising for a focal brand is expected to influence consumers' purchase of the focal brand and competing brands in the competing ads. Consumers' attitudes and purchase behaviors are not only affected by their evaluations and judgments of the focal brand in the focal ad, but also impacted by those of the competing brands in the competing ads. Within the process, attitude toward the focal ad not only directly influences attitude toward the focal brand in the focal ad and attitude toward the competing brands in competing ads, but also indirectly affects these brand attitudes through cognitions of the focal brand and competing brands. Simultaneously, brand cognitions also impact confidence in evaluating the focal brand and competing brands. Consequently, both attitudes toward and confidence in evaluating the focal brand and competing brands determine purchase intentions of the focal brand and competing brands. The extended competitive vulnerability model looks at the generalizations across North American and Chinese consumers.

In addition, both culture and advertising influence consumers' behavior. Culture impacts advertising while advertising reflects cultural values. Chinese culture is highly collectivistic, while North American culture has individualistic characteristics. Chinese society historically emphasizes family and social interests. However, North American culture encourages individual achievement and interests. One individual controls her/his own decision without help from others. Cultural values such as focusing on group benefits in China or individual benefits in North America differ significantly. These cultural values are embedded in advertising to affect consumers' interests and purchase behaviors. Therefore, this study also addresses the interactive effects of culture-laden advertising appeals, ad content arguments, and culture-laden pictures on ad cognitions, ad affects, ad attitudes, brand cognitions, brand attitudes, confidence in evaluating a brand and purchase intentions in both North American and Chinese cultures. Based on the foregoing review, a number of hypotheses were developed. They are summarized in Table 3.1.

**Table 3.1: A Summary of Hypotheses**

**H1:** Consumers' cognitive responses and affective responses toward an ad are correlated when they are exposed to the ad.

**H2:** Consumers' attitudes toward a focal ad ( $i_a$ ) are positively impacted by both their cognitive evaluations of and affective reactions to the same ad ( $i_a$ ) while their attitudes toward a focal ad are negatively impacted by both their cognitive evaluations of and affective reactions to competing ads ( $j_a$ ,  $i_a \neq j_a$ ).

**H3:** Consumers' brand cognitions toward a focal brand ( $i_b$ ) in the focal ad ( $i_a$ ) are positively impacted by their attitudes toward the same ad ( $i_a$ ,  $i_a \neq i_b$ ), while brand cognitions toward a focal brand are negatively impacted by their attitudes toward the competing ads ( $j_a$ ,  $i_a \neq j_a$ ).

**H4:** Consumers' attitudes toward a focal brand ( $i_b$ ) in the focal ad ( $i_a$ ) are positively impacted by both their attitudes toward the same ad ( $i_a$ ,  $i_a \neq i_b$ ) and brand cognitions toward the same brand ( $i_b$ ), while their attitudes toward a focal brand are negatively impacted by both their attitudes toward the competing ads ( $j_a$ ,  $j_a \neq i_a$ ) and brand cognitions toward the competing brands ( $j_b$ ) in the competing ads ( $j_a$ ,  $j_a \neq j_b$  and  $i_a \neq j_a$ ) in the consideration set.

**H5:** Consumers' confidence in evaluating a focal brand ( $i_b$ ) in the focal ad ( $i_a$ ) is positively impacted by their brand cognitions toward the same brand ( $i_b$ ,  $i_a \neq i_b$ ), while their confidence in evaluating a focal brand is negatively impacted by their brand cognitions toward the competing brands ( $j_b$ ) in the competing ads ( $j_a$ ,  $j_a \neq j_b$  and  $i_a \neq j_a$ ) in the consideration set.

**H6:** Consumers' purchase intentions toward a focal brand ( $i_b$ ) in the focal ad ( $i_a$ ) are positively impacted by both their attitudes toward and confidence in the same brand ( $i_b$ ,  $i_a \neq i_b$ ), while their purchase intentions toward a focal brand are negatively impacted by both their attitudes toward and confidence in the competing brands ( $j_b$ ) in the competing ads ( $j_a$ ,  $j_a \neq j_b$  and  $i_a \neq j_a$ ) in the consideration set.

**H7:** The measures of ad cognitions, ad affects, ad attitudes, brand cognitions, brand attitudes, brand confidence in evaluating a brand, and purchase intentions in the consumers' competitive brand choice process are similar across North American and Chinese consumers.

**H8:** The factorial structure of the consumers' competitive brand choice process is similar and the structural parameters are variant across North American and Chinese consumers.

**Table 3.1: A Summary of Hypotheses (continue)**

**H9a:** North American consumers will rate a focal ad, containing an individualistic appeal and strong arguments, higher on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals.

**H9b:** North American consumers will rate a focal ad, containing a collectivistic appeal and weak arguments, lower on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**H9c:** Chinese consumers will rate a focal ad, containing a collectivistic appeal and strong arguments, higher on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**H9d:** Chinese consumers will rate a focal ad, containing an individualistic appeal and weak arguments, lower on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals.

**H10a:** North American consumers will rate a focal ad, containing an individualistic appeal and a picture expressing individualistic cultural values, higher on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals.

**H10b:** North American consumers will rate a focal ad, containing a collectivistic appeal and a picture expressing collectivistic cultural values, lower on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**H10c:** Chinese consumers will rate a focal ad, containing a collectivistic appeal and a picture expressing collectivistic cultural values, higher on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**H10d:** Chinese consumers will rate a focal ad, containing an individualistic appeal and a picture expressing individualistic cultural values, lower on AFFad, Cad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals.



# Chapter Four

## Empirical Design and Methodology

This research involves giving subjects different treatments such as ad content, appeals, pictures and competition, and checking for differences of in-group responses between North America and China. It attempts to achieve causal information, as well as explain cause-and-effect relationships regarding consumer attitudes and purchase behaviors. Hence, experimental research was applied in this study. The research hypotheses were empirically tested in two separate experiments. The objective of experiment 1 was to examine how ad contents (i.e., weak vs. strong arguments) and culture-laden advertising appeals (i.e., individualistic vs. collectivistic appeals) influence Cad, AFFad, Aad, Cb, Ab, CONb and PI in a competitive environment. Therefore, hypotheses 9a-9d were tested by experiment 1. The aim of experiment 2 was to test how culture-laden pictures (i.e., individualistic-laden and collectivistic-laden pictures) and advertising appeals impact these measures in a competitive condition. Hypotheses 10a-10d were examined in experiment 2. Both two experiments were conducted similarly in North America and Mainland China. The aggregate data from Experiments 1 and 2 was used to examine and compare the extended competitive vulnerability model across North American and Chinese cultures, followed by testing hypotheses 1-8.

## 4.1 Experiment 1

### 4.1.1 Overview and design

Experiment 1 used a 2 (culture: individualist vs. collectivist) x 2 (appeal: individualistic vs. collectivistic-laden advertising appeal) x 2 (argument strength: weak vs. strong argument) x 2 (competition: focal vs. competing ad) between-subjects factorial design. Therefore, sixteen groups in which each group has one ad for a focal brand and another for a competing brand were considered in experiment 1. For one culture, I had eight combined groups. Table 4.1 shows the factorial design for one culture.

The digital camera selected for the focal ad was identical for all groups. For the competing ad, the digital camera and ad content were identical for all groups. The cameras in the focal and competing ad were similar in size, but different in design. Overall, however, it is difficult to identify one as better than the other based only on the appearance of the two cameras. In addition, the ad copy, size, and layout for both brands were identical. In order to ensure equal print quality of the ads, those that were used in China were also printed in Canada.

### 4.1.2 Product selection and arguments

A digital camera was chosen as a stimulus product because (a) the subjects in both North America and China were familiar with the product and (b) it was assumed that subjects had some interest in the product. These reasons provided the motivation to processing information in the ad. Two hypothetical brands of digital cameras were presented. The focal brand's name was Canview, and Sparkle was the name for the competing brand. The two brands were priced at approximately the same value and this

constituted the control price attribute. The print ads for the digital cameras, differed in appeal, picture and attribute information, and were constructed in full color to imitate magazines ads, in order to remove the influence due to prior brand information and knowledge.

**Table 4.1: The Design of Experiment 1**

Subjects	Focal Ad (A)			Competing Ad (B)		
	Appeal	Picture	Ad Content	Appeal	Picture	Ad Content
<b>Group 1</b>	Individualistic	Camera	Weak Arguments	Individualistic	Camera	Text
<b>Group 2</b>	Individualistic	Camera	Strong Arguments	Individualistic	Camera	Text
<b>Group 3</b>	Collectivistic	Camera	Weak Arguments	Collectivistic	Camera	Text
<b>Group 4</b>	Collectivistic	Camera	Strong Arguments	Collectivistic	Camera	Text
<b>Group 5</b>	Individualistic	Camera	Weak Arguments	Collectivistic	Camera	Text
<b>Group 6</b>	Individualistic	Camera	Strong Arguments	Collectivistic	Camera	Text
<b>Group 7</b>	Collectivistic	Camera	Weak Arguments	Individualistic	Camera	Text
<b>Group 8</b>	Collectivistic	Camera	Strong Arguments	Individualistic	Camera	Text

In order to develop ad arguments, a list of some digital camera features was compiled by using the following sources across North America and China: (a) popular photography magazines and (b) visits to retail outlets. Argument strength was manipulated as follows: participants in the weak argument condition read the focal ad, “Canview offers you a new digital camera. Performance to match the imagination! Cutting-edge technology meant for everyone.” In the strong argument condition, however, the participants read the focal ad, “Aimed at the best of the best, Canview offers a new digital camera: -A 4.3 megapixel CCD; A 3x optical zoom; Recording 80 seconds

of video with sound.” For the competing ad, participants read the neutral text, “Sparkle announces a breakthrough new digital camera featuring flawless mechanical precision, amazingly quick handling and matchless optical quality. It easily earns the rank of exquisite for both style and performance. Unique in its class!” Finally, informing subjects that two brands had cost approximately the same was constituted the control price attribute.

### 4.1.3 Advertising appeals

This study manipulated two advertising appeals. As stated in the previous discussion, a successful headline appeal should reflect the individualism and hedonism in individualistic culture, while reflecting in-group orientation and social value conformity in collectivistic culture. Based on the interview with some North Americans and Chinese, five individualistic appeals and five collectivistic appeals were developed. After that, I conducted several rounds of pretest with 8 separate groups (total sample size = 32) with Canadian-born and Chinese-born faculties, staffs and EMBA/MBA students at Concordia University (Zhang and Gelb 1996). Based on the pretest, “Achieve Genuine Self-expression” was selected for the final individualistic appeal for the digital camera while “Share the Joy with Those You love” was for the final collectivistic appeal. The two appeals reflected their respective culture values and norms (Lin 2001; Schwartz 1992).

### 4.1.4 Translation

For each group of the print ads, there was a questionnaire in English and Mandarin, respectively. English was used for the North American version while Mandarin was used for the Chinese version. Back-double translation of the print ads and

questionnaires was performed during the preliminary stage of this study. The print ads and questionnaires were first translated into Chinese by two native bilingual English and Chinese speakers, then translated back into English by two other bilingual Chinese-English speakers in order to ensure the accuracy of the translation. The translated print ads and questionnaires were further examined and modified by a professor from McGill University who is proficient in both languages. Importantly, consistent with the actual ads in China, the two fictional brand names in this experiment were not translated into Chinese.

#### 4.1.5 Pre-test

The translated appeals, arguments and questionnaires (English and Chinese versions) were further pre-tested. In order to ensure the effectiveness of the design, I pre-tested the print ads and questionnaires twice. The first pretest involved 17 bilingual Master students (53% female, mean age = 28) who were studying in Concordia and McGill universities. Based on the first pretest, several modifications such as typing, grammar and so on were made. The questionnaires with the print ads were then pre-tested by Canadians who only speak English, as well as Chinese who only speak Mandarin. A total of 21 Canadian and American (52% female, mean age =35) and 18 Chinese (56% female, mean age =31.5) EMBA/MBA students and professionals were recruited for the experiment. All subjects indicated that they understood the questionnaire well. The results of pre-test also showed that the culture-laden advertising appeals (individualistic & collectivistic) and arguments (weak, neutral & strong) were identified correctly. The suggestions regarding modifications from the second pre-test were incorporated into the final versions of the questionnaire.

## 4.1.6 Participants and procedure

Experiment 1 was conducted with consumers, or “real people,” and not from a student sample in Canada during the periods of January – April and July-August, 2002 and in China between May and June 2002. Montreal and Toronto were chosen for data collection sites in Canada. Subjects from one college, two universities, three companies, five shopping malls, two churches and one hospital were invited to participate in the experiment in return for a gift made in China (approximate value \$5). The participants were chosen as randomly as possible from the above units and consisted of Canadians and Americans (born either in USA or temporary visitors from USA) of both genders and various occupations, levels of income and social status. Similarly, Chinese experimental participants were from 21 different units including three universities, eight companies, five government departments, two hospitals, two hotels and one research institute in the cities of Jiangsu and Beijing. All subjects participated in return for a gift made in Canada (approximate value \$5). The experiments were run in small groups ( $n = 3- 25$ ), which were organized in advance. In each experiment, subjects were assigned into one of the design groups. A total of 143 Canadian consumers and 22 American consumers (54% female, mean age =36.2), as well as 252 Chinese (52% female, mean age =32.5) participated in experiment 1.

Subjects were seated at partitioned desks and were asked to read a scenario which provided a purchase goal induction. In the North American experiments, the text described ‘Mark’, while the Chinese experiment introduced ‘Xiao Zhang’, who needed a camera for performing relatively complex photography tasks. In order to create high levels of task involvement in all treatment conditions, subjects were asked to assume that

'Mark'/'Xiao Zhang' was a good friend of theirs and that he needed help to choose the better brand from the ads presented. In addition, subjects were also informed that they would have an opportunity to win a lottery reward of CAD \$100.00 (RMB 550.00 for Chinese participants) at the completion of the study. The chances of winning the reward were linked to the final choice they made. While there was in fact no "correct" answer, this reward program was in place in order to motivate the participants to select what they thought was the "best" or "correct" choice of camera. All subjects were given the same scenario to read.

The experimenter then drew the test group's attention to two envelopes, which were placed on the top right-hand side of the subject's table. The two envelopes included two ads featuring two fictitious digital camera models, one for Canview and another for Sparkle. After the subjects had an opportunity to study the two ads, they were asked to rate the ads and advertised brands in terms of their attitude and purchase behavior. However, they were not permitted to review the ads or previous questions as they moved through the list of questions. Finally, each subject selected one brand of her/his choice for Mark/Xiao Zhang.

#### 4.1.7 Dependent measures

All constructs are measured with multiple-item scales. A detailed description of measurement items used in this research is provided as follows. All items used a 1 to 7-point semantic differential scale.

*Cad* refers to the consumers' cognitive responses about an ad. Eight items measure this construct (very unpersuasive/very persuasive, very uninformative /very informative, not very meaningful/very meaningful, very unrealistic/very realistic, very

difficult to understand /very easy to understand, completely untrustworthy/completely trustworthy, very biased /very unbiased and not appealing to my individual values/appealing to my individual values). Some items were drawn from previous studies (MacKenzie, Lutz and Belch 1986; Edell and Burke 1987; Miniard, Bhatla and Rose 1990). These items assess the content, graphic design and layout of both the focal brand ad and competing ad.

*AFFad* refers to the consumers' affective responses to the ad. This construct is measured with three items (unpleasant/pleasant, boring/interesting, and unexciting/exciting). The three items assess the ad affective responses.

*Aad* refers to the consumers' cognitive evaluations of the ad. This construct is measured with seven items (very bad/very good, very unfavorable/very favorable, highly uncreative/highly creative, least attractive/very attractive, highly dislikable/highly likable, totally uninteresting/totally interesting, and highly implausible/highly plausible). Some items are also drawn from previous research and were used in a number of other studies (Gardner 1985; MacKenzie, Lutz and Belch 1986; Miniard, Bhatla and Rose 1990; Zhang & Gelb 1996).

*Cb* pertains to the consumers' beliefs about the brand featured in the ad. This construct is measured with four items, "it has a luxurious appearance," "it is available in different colors," "it has a number of functions," and "it has good quality."

*Ab* refers to the consumers' evaluation of the brand. This construct is measured with five items (dislike quite a lot/like quite a lot, unsatisfactory/ satisfactory, poor quality/good quality, very unappealing/very appealing and very bad brand/very good



brand) with end-points labeled “1” to “7” (Gardner 1985; MacKenzie and Lutz 1989; Miniard, Bhatla and Rose 1990; Mitchell 1986; Laroche and Teng 2001).

*CONb* refers to the consumers’ level of self-confidence in evaluating the brand in question. This construct is measured with two items. The overall confidence in the brand evaluations is measured by two 7-point scales (not confident at all/very confident; not very certain/very certain) (Laroche, Kim and Zhou 1996; Laroche, Takahashi, Kalamas and Teng 2003).

*PI* refers to the consumers’ likelihood of purchasing the brand. This construct is measured with four items (Laroche, Takahashi, Kalamas and Teng 2003; Mathur 1998). In this study, these items are: “I would definitely intend to buy/ absolutely consider buying/definitely expect to buy /absolutely plan to buy the digital camera.”

The measures of individualism/collectivism culture values were also included in the questionnaire. In addition, several questions were used to measure subjects’ involvement in the experiment.

## 4.2 Experiment 2

The objectives of Experiment 2 were twofold. First, I wanted to provide an extension of experiment 1 to establish the robustness of the findings. Second, I wanted to examine the extended competitive vulnerability model by using data collected in experiment 2. Finally, aside from the replacement of arguments with culture-laden pictures, the procedure of experiment 2 was identical to experiment 1.

### 4.2.1 Design and subjects

Similar to experiment 1, experiment 2 used a 2 (culture: individualist vs. collectivist) x 2 (appeal: individualistic vs. collectivistic-laden advertising appeal) x 2 (picture: individualistic vs. collectivistic-laden advertising picture) x 2 (competition: focal vs. competing ad) between-subjects factorial design. Therefore, there are eight groups to be considered in experiment 2 for each culture (Table 4.2). Again, similar to experiment 1, the camera in the focal ad is identical for each group. For the competing ad, the camera and ad content are identical for each group. However, the cameras in the focal and competing ads are similar in size, but different in design. Once again, the ad copy, size, and layout for both brands are designed identical. In order to ensure the equal print quality of the ads, they will both be printed in Canada. The sources of participants are identical to experiment 1. A total of 155 Canadian consumers and 27 American consumers (55% female, mean age =37), as well as 258 Chinese (51% female, mean age =31) participated in experiment 2.

### 4.2.2 Product selection and ad contents

As in experiment 1, two digital cameras were used in experiment 2. The ad contents in the focal ad and competing ad were controlled to be identical. In other words, the ad contents in experiment 2 were manipulated so that subjects had difficulties to say which camera was better just based on the ad contents of the two ads. For the focal ad, participants read the neutral text, “Canview introduces a new digital camera for photographers. Its flawless mechanical precision, incredible speed, quiet handling and incomparable optical quality represent an obsession with perfection that is unavailable

anywhere else. Truly impressive!” For the competing ad, I kept the same neutral text used in experiment 1. Results from pre-test indicate that there is no significant difference between the two ad contents (total sample size = 15: seven Canadian-born and eight Chinese-born EMBA/MBA students at Concordia University).

**Table 4.2: The Design of Experiment 2**

Subjects	Focal Ad (A)			Competing Ad (B)		
	Appeal	Picture	Ad Content	Appeal	Picture	Ad Content
<b>Group 1</b>	Individualistic	Ind.- Laden Picture	Text	Individualistic	Camera	Text
<b>Group 2</b>	Individualistic	Col.-Laden Picture	Text	Individualistic	Camera	Text
<b>Group 3</b>	Collectivistic	Ind.- Laden Picture	Text	Collectivistic	Camera	Text
<b>Group 4</b>	Collectivistic	Col.-Laden Picture	Text	Collectivistic	Camera	Text
<b>Group 5</b>	Individualistic	Ind.- Laden Picture	Text	Collectivistic	Camera	Text
<b>Group 6</b>	Individualistic	Col.-Laden Picture	Text	Collectivistic	Camera	Text
<b>Group 7</b>	Collectivistic	Ind.- Laden Picture	Text	Individualistic	Camera	Text
<b>Group 8</b>	Collectivistic	Col.-Laden Picture	Text	Individualistic	Camera	Text

### 4.2.3 Advertising appeals and pictures

Similar to experiment 1, experiment 2 used the developed advertising appeals; one of which was for an individualistic advertising appeal, and the other was for a collectivistic advertising appeal. In other words, to maintain consistency in this research, the same advertising manipulation was used in both experiments.

Four individualistic-laden pictures, five collectivistic-laden pictures, and ten neutral pictures were obtained from (a) popular photography magazines and (b) the Internet. Based on a pre-test (total sample size = 21: ten Canadian-born and eleven

Chinese-born consumers), three pictures were identified for use in experiment 2 (see Appendices).

#### 4.2.4 Translation

The same procedure as in Experiment 1 was used for Experiment 2.

#### 4.2.5 Pre-test

Similar to experiment 1, the translated appeals and ad contents, culture-laden pictures and questionnaires (English and Chinese versions) were further pre-tested. A total of 19 Canadian and American (47% female, mean age =39) and 20 Chinese (50% female, mean age =35) EMBA/MBA students and professionals were recruited for the experiment. Again, all subjects reported that they understood the questionnaire well. The pre-test suggested that the appeals, ad contents and culture-laden pictures were identified correctly. The suggestions regarding modifications from the pre-test were incorporated into the final versions of the questionnaire.

#### 4.2.6 Participants and Procedure

The source of participants was identical to that of experiment 1.

#### 4.2.7 Dependent measures

The measures of Cad, AFFad, Aad, Cb, Ab, CONb and PI for the focal ad and brand, as well as competing ad and brand in experiment 1 were used.

# Chapter Five

## Data Analyses and Results

In this chapter, ANOVAs were first run to test whether there were significant cultural differences between North American and Chinese subjects. Based on the mixed 4-way factorial design, ANOVAs and MONOVAs were then performed to analyze how interactions of culture, culture-laden advertising appeal, argument strength, culture-laden advertising picture and competition influence consumer brand choice behaviors in terms of Cad, AFFad, Aad, Cb, Ab, CONb and PI for the two groups. In the testing section of the extended competitive vulnerability model, I used the aggregate data from experiment 1 & 2 to conduct structural equation modeling analysis to test the proposed framework for North American and Chinese consumers, respectively. Then I made a comparison for the extended competitive vulnerability model between the two groups.

### 5.1 Effects of culture, advertising and competition on consumer brand choice behavior

#### 5.1.1 Preliminary analyses

Factor analyses were first carried out on the items measuring cultures for both North American and Chinese subjects. The results showed that 6 items were loaded on 2 factors measuring individualism and collectivism for both North American and Chinese subjects. Three items were loaded on one factor that represented individualism, while

another three items were loaded on a second factor which represented collectivism. Regarding the individualism factor, the reliabilities of these three scales were .53 and .47 for the North American and Chinese subjects, respectively. The reliabilities for the collectivism variable were found to be .58 and .53 for the North American and Chinese groups respectively (Table 5.1). Although the reliabilities obtained in my study on the attitude-based measure of the I-C construct seem low, they are higher than those reported by Chan (1994).

ANOVAs on the measures of the two dimensions were run to examine whether there are significant cultural differences between North American and Chinese subjects. As expected (Table 5.1), An ANOVA on individualist index revealed that North American subjects were more individualist than Chinese subjects ( $M = 5.92$  versus  $M = 4.21$ ,  $F(1, 781) = 554.47$ ,  $p < .01$ ). An ANOVA on collectivist index yielded that Chinese subjects were more collectivist than North American subjects ( $M = 5.87$  versus  $M = 4.48$ ,  $F(1, 781) = 401.32$ ,  $p < .01$ ). Overall, the findings are consistent with the results of the previous studies (Chan, 1994; Triandis et al., 1993).

Initial analysis also indicated no treatment effects for the order in which Canview ad and Sparkle ad were administered ( $F$ 's < 1).

**Table 5.1: Reliabilities and Means of Culture Variables**

	Cronbach's Alpha		Mean			
	N. A.	Chinese	N. A.	Chinese	F-values	p-values
Individualist index	.53	.47	5.92	4.21	554.47	.00
Collectivist index	.58	.53	4.48	5.87	401.32	.00

## 5.1.2 Experiment 1

### 5.1.2.1 Manipulation checks

### 5.1.2.1.1 Advertising appeals

Consistent with manipulation, North American subjects evaluated the individualistic-laden advertising appeal more favorably than the collectivistic-laden advertising appeal ( $M = 5.68$  versus  $M = 4.60$ ,  $F = 20.77$ ,  $p < .01$ ). In contrast, the scores on the dimensions for Chinese subjects indicated a different pattern. Chinese subjects rated the collectivistic-laden advertising appeal more favorably than the individualistic-laden advertising appeal ( $M = 5.63$  versus  $M = 4.38$ ,  $F = 37.02$ ,  $p < .01$ ). Table 5.2 indicates the results of the manipulation of culture-laden advertising appeals for both North American and Chinese subjects.

Table 5.2: ANOVA Results-Advertising Appeal Treatments\*

		North American			Chinese		
		Mean	F-value	p-value	Mean	F-value	p-value
<b>Appeal Treatments</b>	Individualistic	5.68 (.16)	20.77	.00	4.38 (.16)	37.02	.00
	Collectivistic	4.60 (.19)			5.63 (.13)		

\*Standard errors are in parentheses.

### 5.1.2.1.2 Arguments

The manipulation of argument strength was also perceived as expected. An analysis of the argument strength index consisting of three items indicated that in the focal and competing ads condition, the strong arguments were perceived as stronger than the neutral ad text in both North American and Chinese subjects ( $M = 5.89$  versus  $M = 3.07$ ,  $t = 11.47$ ,  $p < .01$  for North American subjects;  $M = 5.77$  versus  $M = 3.10$ ,  $t = 13.31$ ,  $p < .01$  for Chinese subjects). Similarly, in the focal and competing ads condition, the weak arguments were perceived as weaker than the neutral ad text in both North American and Chinese subjects ( $M = 3.27$  versus  $M = 5.14$ ,  $t = -10.97$ ,  $p < .01$  for North

American subjects;  $M = 3.02$  versus  $M = 5.01$ ,  $t = -12.96$ ,  $p < .01$ ). The results indicated that the argument manipulation was effective for both North American and Chinese subjects. The results indicated that the argument manipulation was effective for both North American and Chinese subjects (Table 5.3).

**Table 5.3: T Test Results-Argument Treatments\***

		North American			Chinese		
		Mean	t-value	p-value	Mean	t-value	p-value
<b>Argument Treatments</b>	Strong (Focal Ad)	5.89 (.14)			5.77 (.12)		
	Neutral (Competing Ad)	3.07 (.18)	11.47	.00	3.10 (.15)	13.31	.00
	Weak (Focal Ad)	3.27 (.19)			3.02 (.16)		
	Neutral (Competing Ad)	5.14 (.17)	-10.97	.00	5.01 (.14)	-12.96	.00

\*Standard errors are in parentheses.

### 5.1.2.2 Dimensions of consumer brand choice behaviors

The identification of a set of descriptive factors which underlie consumer brand choice behaviors was one of the objectives of Experiment 1. In the course of this experiment, I analyzed how culture-laden advertising appeals and argument strengths influence these factors in a competitive environment for both North American and Chinese subjects. In order to provide greater insight into the results, several iterations of principal component analyses and Cronbach alpha reliability analyses were used to “simplify and purify” the dimensions by removing variables with poor loadings and low item to total correlations. Finally, the 29 variables that capture the nature of consumer brand choice behaviors were reduced to seven underlying factors with the remaining 22 variables (Table 5.4). For the focal ad and brand, the total variance explained by these factors was 87 % and 86% for North American and Chinese groups respectively.



However, the factors explained 85% of total variance for both North American and Chinese subjects in the competing ad and brand. In addition, the coefficient alphas ranged from .72 to .96 for the two ads and brands for the two groups. Thus, the seven factors appear to describe consumer brand choice behaviors fairly well.

Table5.4: Factors Underlying Consumer Brand Choice Behavior

Factor Name	Variables loading on Factor	Factor Loading (focal)		Factor Loading (competing)	
		N. A.	Chinese	N. A.	Chinese
<b>Cad:</b> Ad cognition	Persuasive	.81	.81	.84	.85
	Informative	.82	.82	.87	.85
	Meaningful	.85	.84	.86	.86
	Realistic	.81	.79	.88	.85
	Appealing to my individual values	.76	.75	.80	.80
<b>AFFad:</b> Ad affect	The ad made me feel pleasant	.62	.68	.65	.70
	The ad made me feel excited	.80	.81	.75	.81
<b>Aad:</b> Ad attitude	Good	.81	.80	.83	.81
	Favorable	.76	.77	.78	.79
	Creative	.82	.81	.85	.86
	Attractive	.85	.84	.88	.87
<b>Cb:</b> Brand cognition	It has a number of functions	.85	.84	.83	.83
	It has good quality	.85	.87	.80	.87
<b>Ab:</b> Brand attitude	I like it very much	.77	.80	.77	.80
	It is very satisfactory	.83	.82	.82	.82
	It has very high appeal	.79	.77	.76	.71
<b>CONb:</b> confidence in Evaluating a brand	Please indicate how confident you are about your evaluation of the brand	.90	.91	.86	.90
	Please indicate the degree of your certainty about your evaluation of the brand	.81	.84	.80	.86
<b>PI:</b> Purchase Intention	Definitely intend to buy	.80	.75	.77	.77
	Absolutely consider buying	.81	.82	.80	.82
	Definitely expect to buy	.85	.83	.85	.84
	Absolutely plan to buy	.86	.82	.81	.80

As described in Table 5.4, five items measured ad cognition and two items measured ad affect. Ad attitude was measured by very bad/very good, very unfavorable/very favorable, highly uncreative/highly creative and least attractive/very attractive. I used two 7-point scales to measure brand cognition. The items were “it has a number of functions” and “it has good quality”. Brand attitude was measured with 7-point scales: “I like it very much,” and “It is very satisfactory,” as well as “It has very high appeal.” These items were similar to ones used in previous studies (Gardner 1985; MacKenzie and Lutz 1989; Miniard, Bhatla and Rose 1990; Mitchell 1986; Laroche and Teng 2001). Two items from scales developed by Laroche et al (1996 and 1994) were used to measure confidence in evaluating a brand. Finally, purchase intention was measured by four 7-point scales: would definitely intend to buy, would absolutely consider buying, would definitely expect to buy, and would absolutely plan to buy.

### 5.1.2.3 ANOVA and MANOVA analyses

In this section, ANOVAs and MANOVAs were performed for North American and Chinese subjects to provide tests of the main effects of culture-laden advertising appeal, argument strength and competition, as well as their interaction effects on the measures of consumer brand choice behaviors.

#### 5.1.2.3.1 Main effects of culture, appeal, argument strength and competition on consumer brand choice behaviors

Data was analyzed with a 2 (culture: individualist vs. collectivist) by 2 (appeal: individualistic vs. collectivistic-laden advertising appeal) by 2 (argument strength: weak vs. strong) by 2 (competition: focal vs. competing ad) factorial design. All treatment cell

means for the dependent measures regarding consumer brand choice behaviors are summarized in Table 5.5. All significant treatment effects are reported.

Based on Table 5.5, I found that the main effects of culture on Cad, AFFad, Aad, Cb, Ab, CONb and PI were partially significant and the influences of competition on consumer brand choice behaviors were mostly significant. However, the analyses of mean ratings from North American and Chinese subjects revealed both significant main effects of advertising appeal and argument strength on Cad, AFFad, Aad, Cb, Ab, CONb and PI for subjects. For example, this main significant effect of argument strength was obtained from the North American group: Cad ( $M = 3.53$  vs.  $M = 5.32$ ,  $F(1, 151) = 109.86$ ,  $p < .01$ ), AFFad ( $M = 3.36$  vs.  $M = 5.07$ ,  $F(1, 153) = 106.96$ ,  $p < .01$ ), Aad ( $M = 3.31$  vs.  $M = 5.06$ ,  $F(1, 153) = 134.53$ ,  $p < .01$ ), Cb ( $M = 3.97$  vs.  $M = 4.86$ ,  $F(1, 153) = 24.25$ ,  $p < .01$ ), Ab ( $M = 3.86$  vs.  $M = 5.02$ ,  $F(1, 153) = 57.19$ ,  $p < .01$ ), CONb ( $M = 3.94$  vs.  $M = 5.23$ ,  $F(1, 153) = 60.07$ ,  $p < .01$ ), and PI ( $M = 3.21$  vs.  $M = 5.31$ ,  $F(1, 153) = 126.40$ ,  $p < .01$ ). Similarly, argument strength exerted a significant effect on these measures among the Chinese group: Cad ( $M = 3.54$  vs.  $M = 5.24$ ,  $F(1, 223) = 130.91$ ,  $p < .01$ ), AFFad ( $M = 3.33$  vs.  $M = 5.00$ ,  $F(1, 223) = 155.38$ ,  $p < .01$ ), Aad ( $M = 3.35$  vs.  $M = 5.07$ ,  $F(1, 223) = 160.57$ ,  $p < .01$ ), Cb ( $M = 3.93$  vs.  $M = 4.76$ ,  $F(1, 223) = 23.96$ ,  $p < .01$ ), Ab ( $M = 3.89$  vs.  $M = 5.10$ ,  $F(1, 223) = 106.61$ ,  $p < .01$ ), CONb ( $M = 4.06$  vs.  $M = 5.25$ ,  $F(1, 223) = 55.84$ ,  $p < .01$ ), and PI ( $M = 3.22$  vs.  $M = 5.22$ ,  $F(1, 223) = 139.56$ ,  $p < .01$ ). That is, the strong argument yielded more favorable Cad, AFFad, Aad, Cb, Ab, CONb and PI than did the weak argument for both North American and Chinese subjects. Argument strength significantly influences consumer attitudes and purchase behaviors.

**Table 5.5a: Mean of Cad in Experiment 1-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Argument)	Focal Ad (F.A.)				Competing Ad (C.A.)				N. A. (F.A. and C.A.)			
	N. A.		Chinese		N. A.		Chinese		N. A.		Chinese	
	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Weak Argument —	3.81 (.35)		3.38 (.23)	.30	5.14 (.36)		5.08 (.17)	.86	6.96		34.35	.00
Ind. Appeal & Neutral Argument			5.24 (.20)	.97	3.08 (.28)		3.63 (.20)	.11	47.13		33.40	.00
Ind. Appeal & Strong Argument —	3.09 (.33)		3.80 (.27)	.12	5.35 (.26)		5.09 (.25)	.50	29.79		12.48	.00
Col. Appeal & Neutral Argument	5.45 (.25)		5.14 (.13)	.23	3.71 (.27)		3.14 (.19)	.09	22.77		76.46	.00
Ind. Appeal & Weak Argument —	4.18 (.26)		3.04 (.18)	.00	5.00 (4.82**)		4.82 (.24)	.57	7.24		34.80	.00
Col. Appeal & Neutral Argument	5.65 (.17)		4.95 (.23)	.02	3.19 (.15)		3.54 (.15)	.11	118.22		27.59	.00
Col. Appeal & Strong Argument —	2.98 (.19)		4.07 (.24)	.00	4.83 (.30)		4.69 (.21)	.69	26.67		3.81	.06
Ind. Appeal & Neutral Argument	4.99 (.23)		5.58 (.15)	.03	3.48 (.14)		3.08 (.15)	.06	31.42		137.17	.00
F-value	19.35		22.59		15.12		18.22					
p-value	.00		.00		.00		.00					

**Table 5.5b: Mean of AFFad in Experiment 1-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Argument)	Focal Ad (F.A.)				Competing Ad (C.A.)				N. A. (F.A. and C.A.)			
	N. A.		Chinese		N. A.		Chinese		N. A.		Chinese	
	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Weak Argument —	3.64 (.28)		3.26 (.18)	.23	5.14 (.34)		4.90 (.18)	.49	11.72		42.41	.00
Ind. Appeal & Neutral Argument	4.73 (.32)		5.13 (.17)	.23	3.20 (.28)		3.37 (.20)	.63	13.23		45.66	.00
Ind. Appeal & Strong Argument —	3.19 (.26)		3.46 (.21)	.44	4.88 (.27)		5.00 (.30)	.80	20.05		17.80	.00
Col. Appeal & Neutral Argument	5.31 (.26)		4.82 (.22)	.20	3.19 (.24)		3.25 (.21)	.03	36.66		26.16	.00
Ind. Appeal & Weak Argument —	3.84 (.28)		2.82 (.11)	.00	4.38 (.33)		4.97 (.16)	.08	1.52		126.81	.00
Col. Appeal & Neutral Argument	5.44 (.12)		4.66 (.26)	.01	2.96 (.17)		3.04 (.22)	.09	140.68		22.39	.00
Ind. Appeal & Strong Argument —	2.83 (.10)		3.88 (.23)	.00	5.06 (.19)		4.70 (.27)	.30	109.14		7.12	.01
Col. Appeal & Neutral Argument	4.79 (.24)		5.36 (.12)	.03	3.10 (.22)		3.00 (.16)	.16	27.36		146.39	.00
F-value	18.84		26.15		13.68		19.26					
p-value	.00		.00		.00		.00					

**Table 5.5c: Mean of Aad in Experiment 1-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Argument)	Focal Ad (F.A.)			Competing Ad (C.A.)			N. A. (F.A. and C.A.)			Chinese (F.A. and C.A.)		
	N. A.	Chinese	ANOVA	N. A.	Chinese	ANOVA	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Weak Argument —	3.07 (.37)	3.27 (.22)	.63	4.32 (.21)	4.64 (.20)	.31	1.08	.31	8.62	.01	21.15	.00
Ind. Appeal & Neutral Argument —	5.12 (.22)	4.88 (.12)	.30	3.02 (.36)	3.25 (.25)	.59	.29	.59	24.19	.00	33.80	.00
Col. Appeal & Weak Argument —	3.13 (.30)	3.19 (.31)	.91	4.94 (.24)	4.52 (.23)	.25	1.38	.25	22.56	.00	11.92	.00
Col. Appeal & Strong Argument —	4.79 (.18)	5.10 (.16)	.24	3.48 (.37)	3.11 (.23)	.39	.77	.39	10.10	.00	49.97	.00
Col. Appeal & Neutral Argument —	3.72 (.22)	3.18 (.16)	.05	4.30 (.30)	5.22 (.11)	.00	10.54	.00	2.42	.13	109.31	.00
Ind. Appeal & Strong Argument —	5.71 (.13)	4.49 (.15)	.00	2.82 (.23)	3.28 (.22)	.16	2.06	.16	120.49	.00	20.15	.00
Col. Appeal & Neutral Argument —	3.14 (.15)	3.75 (.20)	.02	5.20 (.14)	4.20 (.26)	.00	10.34	.00	100.00	.00	1.88	.18
Ind. Appeal & Strong Argument —	4.51 (.15)	5.73 (.13)	.00	3.36 (.22)	3.94 (.19)	.15	2.13	.15	18.56	.00	144.96	.00
F-value	24.39	28.94		12.58	17.31							
p-value	.00	.00		.00	.00							

**Table 5.5d: Mean of Cb in Experiment 1-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Argument)	Focal Ad (F.A.)			Competing Ad (C.A.)			N. A. (F.A. and C.A.)			Chinese (F.A. and C.A.)		
	N. A.	Chinese	ANOVA	N. A.	Chinese	ANOVA	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Weak Argument —	3.85 (.28)	3.98 (.23)	.74	4.96 (.39)	4.84 (.21)	.76	.10	.76	5.38	.03	7.71	.01
Ind. Appeal & Neutral Argument —	5.13 (.27)	4.46 (.28)	.12	4.30 (.15)	3.56 (.25)	.04	4.49	.04	7.24	.01	5.79	.02
Col. Appeal & Weak Argument —	4.15 (.29)	3.94 (.25)	.60	4.58 (.30)	4.86 (.28)	.53	.41	.53	1.05	.32	6.02	.02
Col. Appeal & Strong Argument —	4.27 (.46)	4.91 (.27)	.21	3.38 (.34)	4.11 (.19)	.06	3.87	.06	2.35	.14	5.83	.02
Ind. Appeal & Weak Argument —	4.40 (.20)	3.57 (.18)	.00	4.36 (.24)	4.39 (.24)	.94	.01	.94	.02	.90	7.32	.01
Col. Appeal & Neutral Argument —	5.56 (.18)	4.02 (.26)	.00	3.75 (.26)	3.94 (.20)	.57	.33	.57	33.18	.00	.06	.81
Col. Appeal & Weak Argument —	3.52 (.22)	4.30 (.19)	.01	4.44 (.29)	4.47 (.23)	.95	.00	.95	6.41	.02	.31	.58
Ind. Appeal & Strong Argument —	4.31 (.22)	5.52 (.17)	.00	3.90 (.21)	3.76 (.22)	.66	.20	.66	1.85	.18	39.21	.00
F-value	7.81	8.01		2.70	.01							
p-value	.00	.00		.01	.00							

**Table 5.5e: Mean of Ab in Experiment 1-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Argument)	Focal Ad (F. A.)			Competing Ad (C. A.)			N. A. (F. A. and C. A.)			Chinese (F. A. and C. A.)				
	N. A.	Chinese	ANOVA	N. A.	Chinese	ANOVA	F-value	p-value	ANOVA	F-value	p-value	ANOVA	F-value	p-value
Ind. Appeal & Weak Argument —	4.02 (.20)	3.89 (.16)	.25	6.00 (.19)	5.18 (.20)	7.16	.01	51.21	.00	25.40	.00			
Ind. Appeal & Neutral Argument	4.93 (.24)	4.85 (.15)	.10	3.27 (.23)	3.63 (.12)	2.33	.14	25.63	.00	38.20	.00			
Ind. Appeal & Strong Argument —	3.87 (.21)	3.93 (.14)	.06	5.41 (.27)	5.79 (.19)	1.34	.25	20.59	.00	63.14	.00			
Col. Appeal & Weak Argument —	4.72 (.26)	5.17 (.15)	2.56	3.49 (.22)	3.49 (.20)	.00	.99	13.38	.00	45.01	.00			
Col. Appeal & Strong Argument —	3.92 (.18)	3.65 (.15)	1.39	5.04 (.25)	5.06 (.22)	.01	.94	13.46	.00	29.19	.00			
Col. Appeal & Neutral Argument	5.64 (.19)	4.62 (.22)	12.10	3.35 (.13)	4.45 (.22)	18.28	.00	100.82	.00	.31	.58			
Ind. Appeal & Weak Argument —	3.71 (.19)	4.16 (.13)	3.67	4.92 (.27)	5.26 (.17)	1.12	.30	13.13	.00	24.88	.00			
Ind. Appeal & Neutral Argument	4.63 (.23)	5.68 (.17)	14.24	3.69 (.18)	3.31 (.13)	2.91	.09	9.72	.00	123.10	.00			
F-value	10.87	20.55		18.73	1.00	24.63								
p-value	.00	.00		.00	.00	.00								

**Table 5.5f: Mean of CONb in Experiment 1-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Argument)	Focal Ad (F. A.)			Competing Ad (C. A.)			N. A. (F. A. and C. A.)			Chinese (F. A. and C. A.)				
	N. A.	Chinese	ANOVA	N. A.	Chinese	ANOVA	F-value	p-value	ANOVA	F-value	p-value	ANOVA	F-value	p-value
Ind. Appeal & Weak Argument —	4.25 (.36)	3.88 (.30)	.58	5.25 (.30)	4.88 (.28)	.70	.41	4.52	.04	5.78	.02			
Ind. Appeal & Neutral Argument	5.10 (.16)	5.15 (.21)	.03	3.80 (.33)	4.02 (.30)	.22	.64	12.67	.00	9.60	.00			
Ind. Appeal & Strong Argument —	3.61 (.39)	4.42 (.27)	2.91	5.04 (.32)	5.32 (.27)	.42	.52	7.84	.00	5.60	.00			
Col. Appeal & Weak Argument —	5.27 (.19)	5.02 (.22)	.51	3.92 (.39)	4.27 (.30)	.46	.50	9.67	.00	4.11	.05			
Col. Appeal & Neutral Argument	4.32 (.25)	3.60 (.17)	6.04	4.62 (.25)	5.19 (.17)	3.95	.05	.72	.40	43.70	.00			
Ind. Appeal & Strong Argument —	5.38 (.17)	5.22 (.19)	.38	3.77 (.27)	4.08 (.22)	.80	.38	25.78	.00	15.48	.00			
Col. Appeal & Weak Argument —	3.56 (.21)	4.47 (.22)	8.74	5.10 (.21)	4.48 (.22)	4.05	.05	27.14	.00	.00	.96			
Ind. Appeal & Neutral Argument	5.15 (.19)	5.59 (.18)	2.78	4.00 (.21)	3.93 (.27)	.04	.85	16.02	.00	25.90	.00			
F-value	9.86	10.61		5.06	4.75									
p-value	.00	.00		.00	.00									

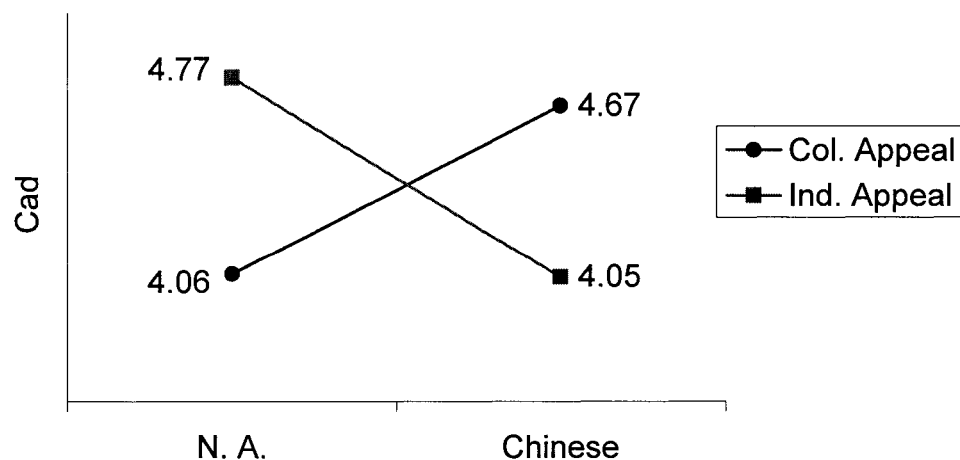
**Table 5.5g: Mean of PI in Experiment 1-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Argument)	Focal Ad (F. A.)			Competing Ad (C. A.)			N. A. (F. A. and C. A.)			Chinese (F. A. and C. A.)						
	N. A.	Chinese	ANOVA F-value	ANOVA p-value	N. A.	Chinese	ANOVA F-value	ANOVA p-value	N. A.	Chinese	ANOVA F-value	ANOVA p-value	N. A.	Chinese	ANOVA F-value	ANOVA p-value
Ind. Appeal & Weak Argument ---	2.93 (.36)	2.83 (.24)	.06	.82	5.45 (.28)	4.98 (.23)	1.58	.22	30.91	41.65	.00	.00	30.91	41.65	.00	.00
Ind. Appeal & Neutral Argument ---	5.22 (.13)	4.83 (.27)	1.09	.30	3.53 (.36)	3.27 (.29)	.32	.58	18.83	15.48	.00	.00	18.83	15.48	.00	.00
Ind. Appeal & Strong Argument ---	2.75 (.27)	3.11 (.31)	.57	.46	5.00 (.37)	5.17 (.28)	.13	.72	24.02	23.78	.00	.00	24.02	23.78	.00	.00
Col. Appeal & Weak Argument ---	4.88 (.35)	5.17 (.13)	.86	.36	2.81 (.29)	3.29 (.26)	1.28	.26	20.80	41.20	.00	.00	20.80	41.20	.00	.00
Col. Appeal & Neutral Argument ---	4.13 (.25)	2.73 (.19)	20.23	.00	4.51 (.24)	5.15 (.21)	4.17	.05	1.24	73.31	.00	.00	1.24	73.31	.00	.00
Ind. Appeal & Strong Argument ---	5.52 (.26)	5.24 (.22)	.69	.41	3.70 (.26)	3.08 (.23)	3.19	.08	24.22	47.13	.00	.00	24.22	47.13	.00	.00
Col. Appeal & Weak Argument ---	2.71 (.23)	4.23 (.22)	23.20	.00	5.41 (.20)	4.48 (.22)	9.79	.00	77.85	.62	.00	.00	77.85	.62	.00	.43
Ind. Appeal & Neutral Argument ---	5.38 (.18)	5.59 (.23)	.53	.47	3.13 (.23)	3.54 (.24)	1.54	.22	59.14	38.01	.00	.00	59.14	38.01	.00	.00
F-value	23.13	26.81			13.95	14.09										
p-value	.00	.00			.00	.00										

### 5.1.2.3.2 Interaction effects of culture, appeal, argument strength and competition on consumer brand choice behaviors

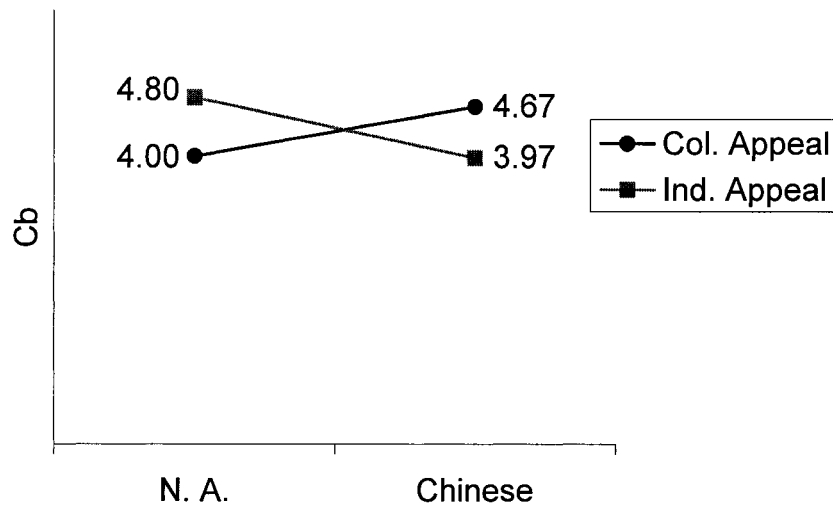
In addition to main effects, a significant culture by appeal interaction effect is also found: Cad ( $F(1, 370) = 28.27, p < .01$ ), AFFad ( $F(1, 370) = 19.59, p < .01$ ), Aad ( $F(1, 370) = 30.10, p < .01$ ), Cb ( $F(1, 370) = 36.03, p < .01$ ), Ab ( $F(1, 370) = 25.80, p < .01$ ), CONb ( $F(1, 370) = 12.48, p < .01$ ) and PI ( $F(1, 370) = 24.17, p < .01$ ), indicating that North American respondents rated higher on Cad, AFFad, Aad, Cb, Ab, CONb and PI when an ad contains an individualistic appeal as compared to a collectivistic appeal. In contrast, data given by Chinese respondents indicates an opposite pattern with significant higher scores on these measures in a collectivistic appeal as compared to an individualistic appeal (Figure 5.1). However, the interaction effect of culture by argument strength is not observed.

**Figure 5.1**  
**Two-way Culture by Appeal Interaction**  
**on Cad**





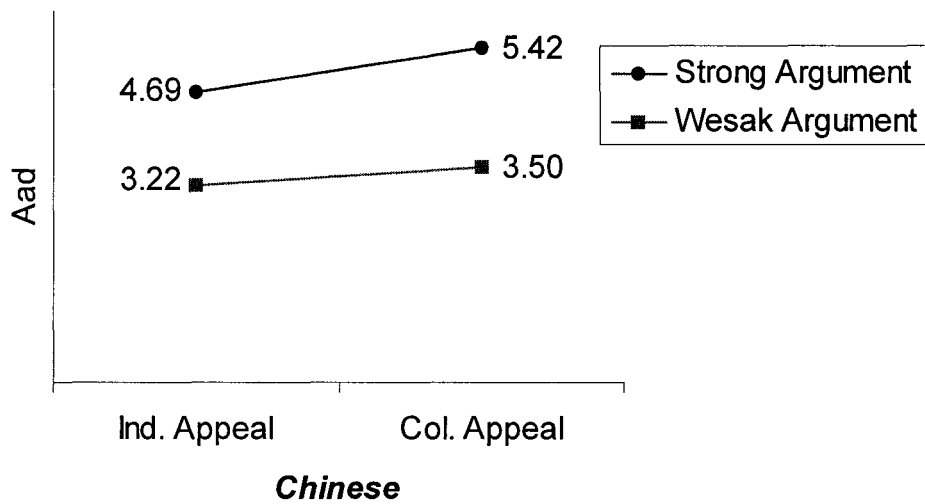
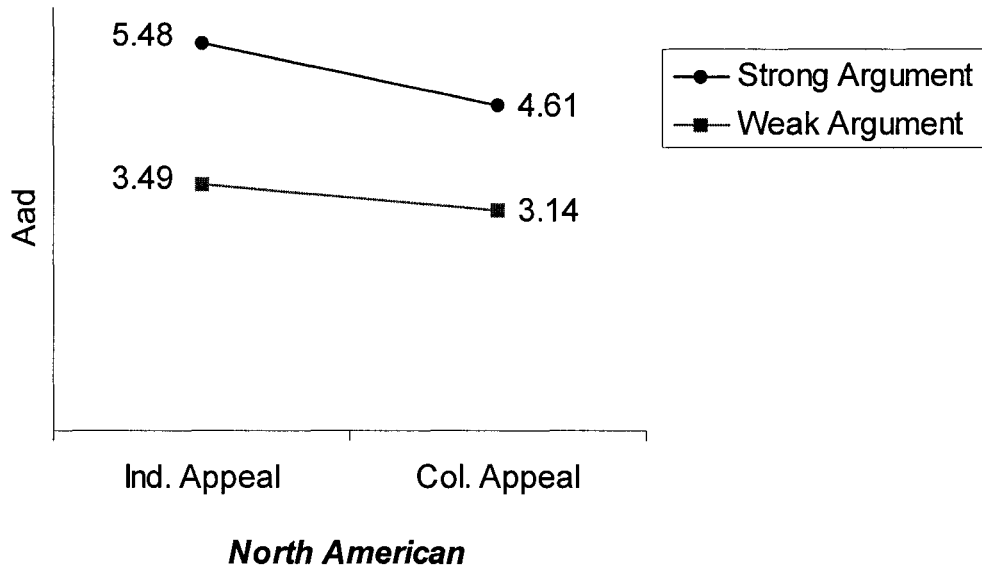
**Figure 5.1**  
**Two-way Culture by Appeal Interaction on Cb**



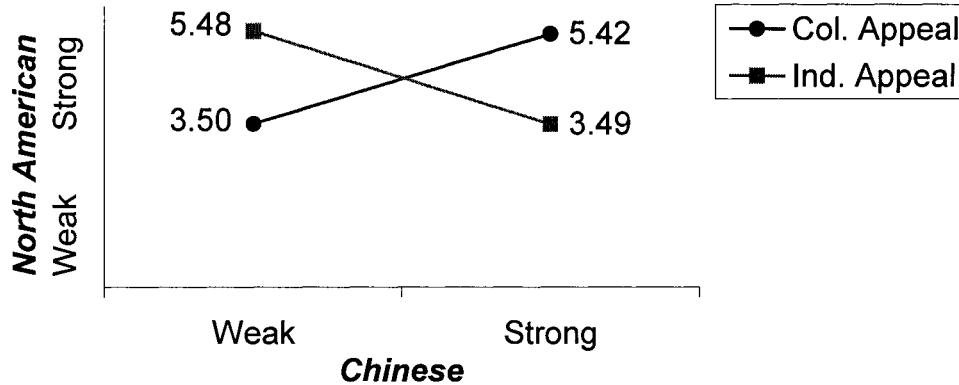
Moreover, the culture-laden advertising appeal by argument strength interaction effect was found from both North American and Chinese groups: Cad ( $F(1, 150) = 4.17$ ,  $p < .05$  for North American subjects;  $F(1, 220) = 2.89$ ,  $p < .10$  for Chinese subjects), AFFad ( $F(1, 150) = 3.58$ ,  $p < .10$  for North American subjects;  $F(1, 220) = 2.66$ ,  $p < .10$  for Chinese subjects), Aad ( $F(1, 150) = 3.11$ ,  $p < .10$  for North American subjects;  $F(1, 220) = 2.90$ ,  $p < .10$  for Chinese subjects), Cb ( $F(1, 150) = 3.07$ ,  $p < .10$  for North American subjects;  $F(1, 220) = 3.14$ ,  $p < .10$  for Chinese subjects), Ab ( $F(1, 150) = 2.83$ ,  $p < .10$  for North American subjects;  $F(1, 220) = 2.79$ ,  $p < .10$  for Chinese subjects), CONb ( $F(1, 150) = 3.65$ ,  $p < .10$  for North American subjects;  $F(1, 220) = 3.83$ ,  $p < .10$  for Chinese subjects) and PI ( $F(1, 150) = 4.32$ ,  $p < .05$  for North American subjects;  $F(1, 220) = 3.22$ ,  $p < .10$  for Chinese subjects). This suggests that both North American and Chinese subjects respond differently to the mixed appeal and argument strength

conditions. For example, the mean scores of Cad, AFFad, Aad, Cb, Ad, CONb and PI for the focal ad and brand from North American subjects are higher when the advertising appeal of the focal ad is individualistic and strong arguments are used as compared from Chinese subjects (Cad ( $M = 5.49$  vs.  $M = 5.10$ ,  $F(1, 88) = 3.76$ ,  $p < .01$ ), AFFad ( $M = 5.17$  vs.  $M = 4.90$ ,  $F(1, 88) = 1.40$ ,  $p > .10$ ), Aad ( $M = 5.48$  vs.  $M = 4.69$ ,  $F(1, 88) = 25.43$ ,  $p < .01$ ), Cb ( $M = 5.40$  vs.  $M = 4.25$ ,  $F(1, 88) = 20.29$ ,  $p < .01$ ), Ab ( $M = 5.37$  vs.  $M = 4.74$ ,  $F(1, 88) = 9.48$ ,  $p < .01$ ), CONb ( $M = 5.27$  vs.  $M = 5.19$ ,  $F(1, 88) = .19$ ,  $p > .10$ ), and PI ( $M = 5.40$  vs.  $M = 5.03$ ,  $F(1, 88) = 2.25$ ,  $p > .10$ ). However, Chinese subjects give a more favorable evaluation of these measures for the focal ad and brand when the focal ad contains a collectivistic appeal and strong arguments, as compared with North American subjects (Cad ( $M = 5.36$  vs.  $M = 5.15$ ,  $F(1, 92) = 1.26$ ,  $p > .10$ ), AFFad ( $M = 5.10$  vs.  $M = 4.97$ ,  $F(1, 92) = .32$ ,  $p > .10$ ), Aad ( $M = 5.42$  vs.  $M = 4.61$ ,  $F(1, 92) = 24.38$ ,  $p < .01$ ), Cb ( $M = 5.21$  vs.  $M = 4.29$ ,  $F(1, 92) = 11.96$ ,  $p < .01$ ), Ab ( $M = 5.43$  vs.  $M = 4.66$ ,  $F(1, 92) = 14.69$ ,  $p < .01$ ), CONb ( $M = 5.30$  vs.  $M = 5.19$ ,  $F(1, 92) = .30$ ,  $p > .10$ ), and PI ( $M = 5.38$  vs.  $M = 5.20$ ,  $F(1, 92) = .71$ ,  $p > .10$ ). This difference is driven by the interaction of culture by culture-laden advertising appeal by argument strength. As expected, a significant culture by appeal by argument interaction is obtained: Cad ( $F(1, 370) = 6.98$ ,  $p < .01$ ), AFFad ( $F(1, 370) = 6.85$ ,  $p < .01$ ), Aad ( $F(1, 370) = 5.84$ ,  $p < .05$ ), Cb ( $F(1, 370) = 5.99$ ,  $p < .05$ ), Ab ( $F(1, 370) = 5.73$ ,  $p < .05$ ), CONb ( $F(1, 370) = 7.15$ ,  $p < .01$ ) and PI ( $F(1, 370) = 7.34$ ,  $p < .01$ ). Therefore, in the strong arguments/weak arguments, there is significant difference between the individualistic and collectivistic appeals for both North American and Chinese subjects. As examples, Figures 5.2 & 5.3 clearly illustrated the three-way interaction on ad attitude.

**Figure 5.2**  
**Three-way Interaction on Aad**



**Figure 5.3**  
**Three-way Interaction on Aad**



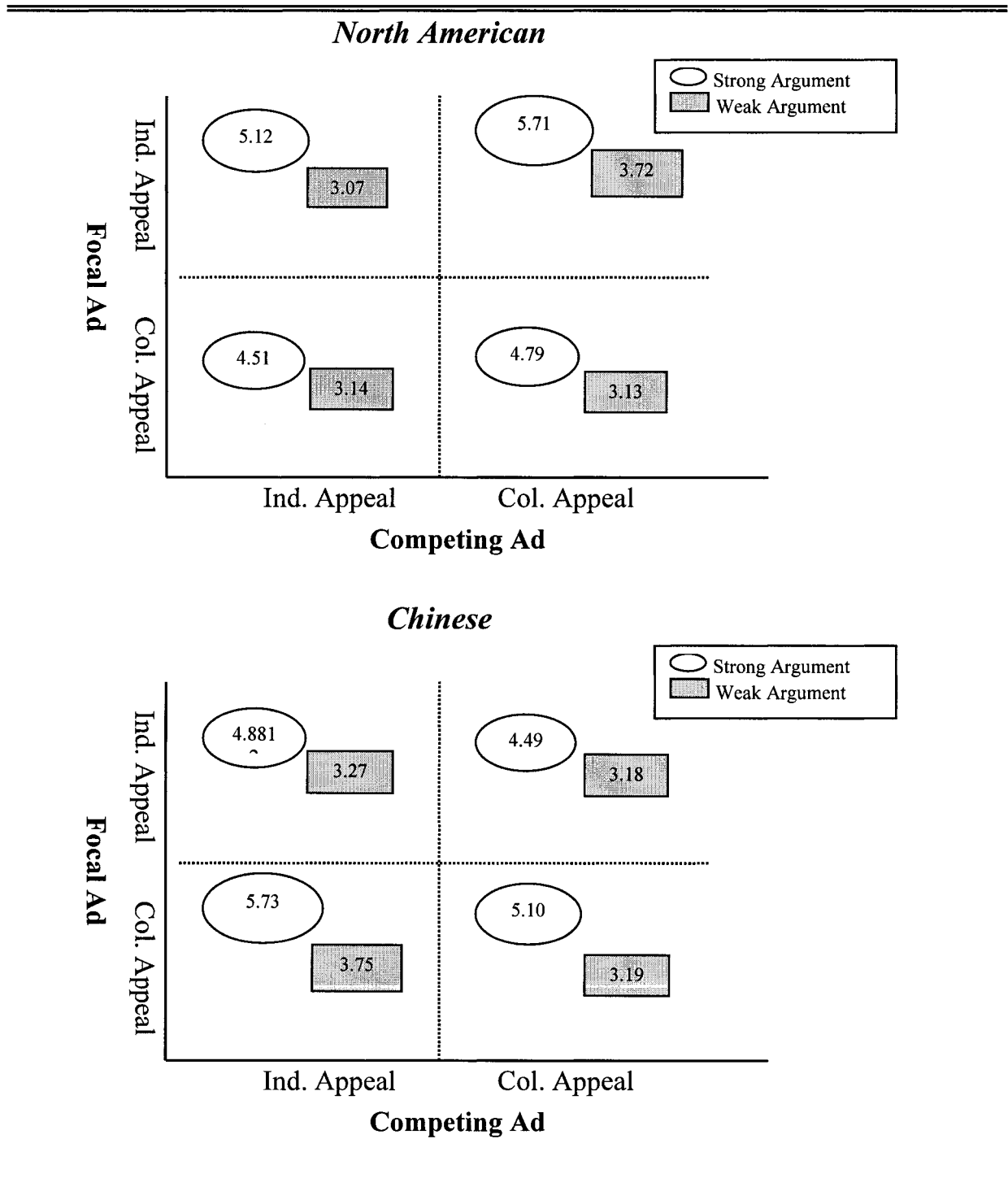
Next, I moved to address the interaction effect of competition with culture, appeal and argument strength on consumer brand choice behaviors. When the competing ad contains a collectivistic-laden advertising appeal, the individualistic-laden advertising appeal which conveys self-expression information exerts the greatest influence on Cad, AFFad, Aad, Cb, Ab, CONb and PI among North American subjects as it interacts with the strong ad arguments. However, the effects of interaction of the collectivistic-laden advertising appeal and the strong ad arguments have the strongest influence on these measures among Chinese subjects, when the competing ad contains an individualistic-laden advertising appeal. The Table 5.5 indicates the cell means associated with the experimental factors and interactions. The results indicate that the scores on Cad, AFFad, Aad, Cb, Ab, CONb and PI in group 6 are higher than those in the other seven groups for North American subjects (Cad ( $M_{\text{highest}} = 5.65$ ,  $F(7, 146) = 19.35$ ,  $p < .01$ ), AFFad ( $M_{\text{highest}} = 5.44$ ,  $F(7, 146) = 18.84$ ,  $p < .01$ ), Aad ( $M_{\text{highest}} = 5.71$ ,  $F(7, 146) = 24.39$ ,  $p < .001$ ), Cb ( $M_{\text{highest}} = 5.56$ ,  $F(7, 146) = 7.81$ ,  $p < .01$ ), Ab ( $M_{\text{highest}} = 5.64$ ,  $F(7, 146) = 10.87$ ,  $p < .01$ ),

CONb ( $M_{\text{highest}} = 5.38$ ,  $F(7, 146) = 9.86$ ,  $p < .01$ ), and PI ( $M_{\text{highest}} = 5.52$ ,  $F(7, 146) = 23.13$ ,  $p < .01$ ). Conversely, these measures receive lower scores from North American subjects in group 7 than in other seven groups (Cad,  $M_{\text{lowest}} = 2.98$ ; AFFad,  $M_{\text{lowest}} = 2.83$ ; Aad,  $M_{\text{lowest}} = 3.14$ ; Cb,  $M_{\text{lowest}} = 3.52$ ; Ab,  $M_{\text{lowest}} = 3.71$ ; CONb,  $M_{\text{lowest}} = 3.56$ ; PI,  $M_{\text{lowest}} = 2.71$ ). Therefore, H9a and H9b are strongly supported. Results from Chinese subjects showed the opposite pattern with a significant highest scores in group 8 and lowest scores in group 5 (Cad ( $M_{\text{highest}} = 5.58$  versus  $M_{\text{lowest}} = 3.04$ ,  $F(7, 216) = 22.59$ ,  $p < .01$ ), AFFad ( $M_{\text{highest}} = 5.36$  versus  $M_{\text{lowest}} = 2.82$ ,  $F(7, 216) = 26.15$ ,  $p < .01$ ), Aad ( $M_{\text{highest}} = 5.73$  versus  $M_{\text{lowest}} = 3.18$ ,  $F(7, 216) = 28.94$ ,  $p < .01$ ), Cb ( $M_{\text{highest}} = 5.52$  versus  $M_{\text{lowest}} = 3.57$ ,  $F(7, 216) = 8.01$ ,  $p < .01$ ), Ab ( $M_{\text{highest}} = 5.68$  versus  $M_{\text{lowest}} = 3.65$ ,  $F(7, 216) = 20.55$ ,  $p < .01$ ), CONb ( $M_{\text{highest}} = 5.59$  versus  $M_{\text{lowest}} = 3.60$ ,  $F(7, 216) = 10.61$ ,  $p < .01$ ), and PI ( $M_{\text{highest}} = 5.59$  versus  $M_{\text{lowest}} = 2.73$ ,  $F(7, 216) = 26.81$ ,  $p < .01$ ). These findings strongly support H9c and H9d. In regards to space constraints, I illustrate ad attitude in Figure 5.4 as an example to show the effects of interaction of culture by appeal by argument strength by competition. As such, North American subjects rate a focal ad, containing an individualistic appeal and strong arguments, higher on Cad, AFFad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals. However, Chinese subjects rate a focal ad, containing a collectivistic appeal and strong arguments, higher on Cad, AFFad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

Overall, the results indicate that the interactions of culture, culture-laden advertising appeal, argument strength, and competition on Cad, AFFad, Aad, Cb, Ab,

CONb and PI influence consumer brand choice behaviors for both North American and Chinese consumers.

**Figure 5.4**  
**Four-way Interaction on Aad**



#### 5.1.2.4 Summary

Experiment 1 examined the effect of culture-laden advertising appeal, argument strength, and competition on consumer brand choice behaviors for North American and Chinese subjects. The results suggest that there are significant differences in how individuals from the two cultures respond to the appeals and arguments between a focal ad and competing ads. For example, North American subjects had more favorable attitudes toward an ad containing an individualistic appeal and strong arguments when competing ads contained collectivistic appeals as compared to individualistic appeals. However, Chinese subjects had more favorable attitudes toward an ad containing a collectivistic appeal and strong arguments when competing ads contained individualistic appeals as compared to collectivistic appeals. This pattern is identical for other measures of consumer brand choice behaviors such as Cad, AFFad, Cb, Ab, CONb and PI.

My results are consistent with the findings of previous empirical studies that a culturally congruent appeal is associated with more favorable outcomes. A culturally congruent individualistic appeal receives more positive responses from individualists while a culturally congruent collectivistic appeal obtains more positive responses from collectivists (Zhang and Gelb, 1996). Both North American and Chinese subjects report more positive responses when the ad arguments are strong than when they are weak. In addition, my findings indicate that competing ads and brands influence subjects' responses to the focal ad and brand. The competitive effects are strengthened when the focal ad and competing ads contain different kinds of culture-laden advertising appeals (individualistic vs. collectivistic).

Evidence indicates that ad cognitions evoked by pictures serve as important determinants of picture-based persuasion (Miniard, Bhatla, Lord, Dickson and Unnava, 1991). Similar to an advertising appeal, cultural values, norms and characteristics can be embedded in an advertising picture. Subjects with distinct cultural backgrounds may have different reactions to a culture-laden picture and in turn their responses may influence their brand choice. In Experiment 2, therefore, I further examine the interaction effects of culture, culture-laden advertising appeals, culture-laden pictures, and competition on consumer brand choice behaviors.



## 5.1.3 Experiment 2

### 5.1.3.1 Manipulation checks

#### 5.1.3.1.1 Advertising appeals

This manipulation was similar to that of Experiment 1. Table 5.6 shows the evaluations of North American and Chinese subjects on the individualistic-laden advertising appeal and the collectivistic-laden advertising appeal, respectively. The results suggest that the manipulation of culture-laden advertising appeals for the North American and Chinese subjects are appropriate.

**Table 5.6: ANOVA Results-Advertising Appeal Treatments\***

		North American			Chinese		
		Mean	F-value	p-value	Mean	F-value	p-value
Appeal Treatments	Individualistic	5.57 (.14)	23.18	.00	4.54 (.15)	28.75	.00
	Collectivistic	4.50 (.17)			5.54 (.12)		

\*Standard errors are in parentheses.

#### 5.1.3.1.2 Culture-laden pictures

A composite score consisting of the two items was derived and used to check the manipulation of picture for the focal and competing ads for the North American and Chinese subjects. For the North American group, the focal ad with the individualistic-laden advertising picture received higher favorable scores than the competing ad with the neutral picture ( $M = 5.43$  versus  $M = 4.50$ ,  $t = 5.20$ ,  $p < .01$ ). In contrast, the focal ad with the collectivistic -laden advertising picture received lower scores than the competing ad with the neutral picture ( $M = 4.81$  versus  $M = 5.11$ ,  $t = -1.89$ ,  $p < .01$ ). Compared to North American subjects in the picture condition, Chinese subjects rated the collectivistic-laden

advertising picture in the focal ad more favorably than they did for the neutral picture in the competing ad ( $M = 5.36$  versus  $M = 5.02$ ,  $t = 1.99$ ,  $p < .01$ ). Moreover, Chinese subjects evaluated the neutral picture in the competing ad more favorably than they did the individualistic picture in the focal ad ( $M = 5.51$  versus  $M = 4.32$ ,  $t = 8.13$ ,  $p < .01$ ). Therefore, picture manipulation was effective for both the North American and Chinese groups. The results are summarized in Table 5.7, which shows how the picture manipulation is effective for both the North American and Chinese groups.

**Table 5.7: T Test Results-Advertising Picture Treatments\***

		North American			Chinese		
		Mean	t-value	p-value	Mean	t-value	p-value
<b>Picture Treatments</b>	Individualistic (Focal Ad)	5.43 (.11)	5.20	.00	4.32 (.13)	-8.13	.00
	Neutral (Competing Ad)	4.50 (.11)			5.51 (.11)		
	Collectivistic (Focal Ad)	4.82 (.09)	-1.89	.06	5.36 (.11)		
	Neutral (Competing Ad)	5.11 (.09)			5.02 (.12)		

\*Standard errors are in parentheses.

### 5.1.3.2 Dimensions of consumer brand choice behaviors

Similar to Experiment 1, the same set of measures was identified in Experiment 2, which loaded on seven underlying factors. These factors in the focal ad and brand explained 86.07 % and 86.15 % of total variance for North American, and Chinese respondents, respectively. They explained 82.51% and 82.00% of total variance for the two groups in the competing ad and brand. The coefficient alphas were between .65 and .97 for the two ads and brands for the two groups. Table 5.8 shows a summary of the factor analysis results.

Table 5.8: Factors Underlying Consumer Brand Choice Behavior

Factor Name	Variables loading on Factor	Factor Loading (focal)		Factor Loading (competing)	
		N. A.	Chinese	N. A.	Chinese
<b>Cad:</b> Ad cognition	Ad is persuasive	.90	.88	.82	.84
	Ad is informative	.85	.86	.79	.85
	Ad is meaningful	.84	.85	.83	.88
	Ad is realistic	.82	.81	.73	.85
	Ad is appealing to individual values	.78	.75	.80	.77
<b>AFFad:</b> Ad affects	The ad made me feel pleasant	.64	.72	.73	.73
	The ad made me feel excited	.72	.78	.82	.84
<b>Aad:</b> Ad attitudes	The ad is good	.72	.81	.84	.81
	The ad is favorable	.67	.72	.58	.63
	The ad is creative	.77	.81	.83	.80
	The ad is attractive	.76	.80	.72	.80
<b>Cb:</b> Brand cognitions	Brand in the ad has a number of functions	.83	.83	.77	.78
	Brand in the ad has good quality	.79	.73	.80	.80
<b>Ab:</b> Brand attitudes	I like the brand very much	.81	.79	.78	.82
	The brand is very satisfactory	.82	.82	.82	.85
	The brand has very high appeal	.79	.78	.76	.76
<b>CONb:</b> confidence in Evaluating brand	Please indicate how confident you are about your evaluation of the brand	.92	.92	.88	.90
	Please indicate the degree of your certainty about your evaluation of the brand	.88	.87	.84	.87
<b>PI:</b> Purchase Intentions	Definitely intend to buy	.77	.78	.80	.81
	Absolutely consider buying	.76	.78	.83	.81
	Definitely expect to buy	.80	.81	.86	.84
	Absolutely plan to buy	.80	.81	.83	.84

### 5.1.3.3 ANOVA and MANOVA analyses

As indicated in Table 5.8, I posit that the measures of Cad, AFFad, Aad, Cb, Ab, CONb and PI are identical over Experiment 1 and 2. In a manner similar to Experiment 1, in Experiment 2 I conduct ANOVAs and MANOVAs analyses to examine the main effects of culture, culture - laden advertising appeal, culture - laden advertising picture and competition as well as their interaction effects on consumer brand choice behaviors.

#### 5.1.3.3.1 Main effects of culture, appeal, picture and competition on consumer brand choice behaviors

Similar to experiment 1, data was analyzed based on 2 (culture: individualist vs. collectivist) by 2 (appeal: individualistic vs. collectivistic-laden advertising appeal) by 2 (picture: individualistic vs. collectivistic-laden advertising picture) by 2 (competition: focal vs. competing ad) factorial design. All treatment means for Cad, AFFad, Aad, Cb, Ab, CONb and PI are summarized in Table 5.9.

The results in Table 5.9 suggest that there are significant main effects of culture and competition on Cad, AFFad, Aad, Cb, Ab, CONb and PI. As in Experiment 1, the culture -laden advertising appeals show significant main influences on these measures in both North American and Chinese subjects. In addition, the main significant effect of culture - laden advertising picture obtained indicates that the individualistic-laden advertising picture and the collectivistic-laden advertising picture receive different scores from North American and Chinese groups on the measures of consumer brand choice behaviors. For instance, analysis of the North American responses indicates a significant picture main effect: Cad ( $M = 4.78$  vs.  $M = 4.18$ ,  $F(1, 166) = 12.93$ ,  $p < .01$ ), AFFad ( $M = 4.85$  vs.  $M = 3.62$ ,  $F(1, 166) = 51.33$ ,  $p < .01$ ), Aad ( $M = 4.93$  vs.  $M = 3.97$ ,  $F(1, 166) =$

37.22,  $p < .01$ ), Cb ( $M = 4.70$  vs.  $M = 3.75$ ,  $F(1, 166) = 41.36$ ,  $p < .01$ ), Ab ( $M = 5.01$  vs.  $M = 4.06$ ,  $F(1, 166) = 33.10$ ,  $p < .01$ ), CONb ( $M = 4.81$  vs.  $M = 4.32$ ,  $F(1, 166) = 7.65$ ,  $p < .01$ ), and PI ( $M = 4.81$  vs.  $M = 3.29$ ,  $F(1, 166) = 77.65$ ,  $p < .01$ ). The analyses of data from Chinese subjects also show a picture main effect: Cad ( $M = 4.11$  vs.  $M = 4.92$ ,  $F(1, 237) = 31.01$ ,  $p < .01$ ), AFFad ( $M = 3.71$  vs.  $M = 4.99$ ,  $F(1, 237) = 75.10$ ,  $p < .01$ ), Aad ( $M = 3.96$  vs.  $M = 4.95$ ,  $F(1, 237) = 48.86$ ,  $p < .01$ ), Cb ( $M = 4.22$  vs.  $M = 4.84$ ,  $F(1, 237) = 18.71$ ,  $p < .01$ ), Ab ( $M = 4.11$  vs.  $M = 5.18$ ,  $F(1, 237) = 53.34$ ,  $p < .01$ ), CONb ( $M = 4.28$  vs.  $M = 4.92$ ,  $F(1, 237) = 15.51$ ,  $p < .01$ ), and PI ( $M = 3.31$  vs.  $M = 5.01$ ,  $F(1, 237) = 120.35.65$ ,  $p < .01$ ). Therefore, as expected, the main effect findings reveal that culture, culture-laden advertising appeal, culture-laden advertising picture and competition significantly influence consumer attitudes and purchase behaviors.

**Table 5.9a: Mean of Cad in Experiment B-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Picture)	Focal Ad (F.A.)				Competing Ad (C.A.)				N. A. (F.A. and C.A.)		Chinese (F.A. and C.A.)	
	N. A.		Chinese		ANOVA		ANOVA		ANOVA		ANOVA	
	N. A.	Chinese	F-value	p-value	N. A.	Chinese	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Ind. Picture —	4.94 (.25)	3.95 (.20)	9.08	.00	3.82 (.20)	5.03 (.15)	22.99	.00	11.94	.00	18.15	.00
Ind. Appeal & Neutral Picture	3.94 (.29)	4.83 (.15)	9.05	.00	4.98 (.19)	4.29 (.19)	6.10	.02	8.96	.00	5.28	.03
Ind. Appeal & Col. Picture —	4.70 (.21)	4.07 (.22)	3.59	.07	3.98 (.20)	5.04 (.18)	14.06	.00	6.34	.02	11.22	.00
Col. Appeal & Ind. Picture —	3.94 (.29)	4.92 (.21)	7.56	.00	5.03 (.14)	4.21 (.20)	7.31	.01	11.35	.00	6.00	.02
Col. Appeal & Neutral Picture	5.70 (.12)	4.08 (.20)	37.63	.00	3.63 (.10)	5.15 (.21)	33.70	.00	172.24	.00	13.42	.00
Ind. Appeal & Ind. Picture —	4.48 (.22)	3.96 (.24)	2.59	.11	4.90 (.20)	5.27 (.19)	1.74	.19	2.04	.16	18.46	.00
Col. Appeal & Col. Picture —	3.92 (.25)	4.30 (.21)	1.21	.25	4.87 (.14)	4.89 (.22)	.00	.95	11.13	.00	3.92	.05
Col. Appeal & Neutral Picture	4.18 (.22)	5.87 (.11)	50.65	.00	5.12 (.10)	3.83 (.14)	51.58	.00	14.39	.00	134.86	.00
F-value	6.99	11.84			14.35	7.75						
p-value	.00	.00			.00	.00						

**Table 5.9b: Mean of AFFad in Experiment B-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Picture)	Focal Ad (F.A.)				Competing Ad (C.A.)				N. A. (F.A. and C.A.)		Chinese (F.A. and C.A.)	
	N. A.		Chinese		ANOVA		ANOVA		ANOVA		ANOVA	
	N. A.	Chinese	F-value	p-value	N. A.	Chinese	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Ind. Picture —	5.03 (.24)	3.66 (.22)	15.68	.00	3.85 (.34)	5.17 (.23)	10.80	.00	7.82	.00	22.07	.00
Ind. Appeal & Neutral Picture	3.97 (.280)	4.85 (.19)	7.14	.01	4.83 (.25)	4.17 (.22)	3.85	.06	5.19	.03	5.66	.02
Ind. Appeal & Col. Picture —	4.97 (.25)	3.72 (.22)	12.82	.00	4.09 (.37)	4.80 (.20)	3.43	.07	3.84	.06	13.21	.00
Col. Appeal & Ind. Picture —	3.31 (.30)	5.06 (.17)	30.17	.00	5.09 (.28)	3.71 (.21)	15.04	.00	18.78	.00	25.01	.00
Col. Appeal & Neutral Picture	5.77 (.13)	3.47 (.21)	72.90	.00	3.77 (.17)	5.11 (.20)	23.95	.00	85.04	.00	33.42	.00
Ind. Appeal & Col. Picture —	3.83 (.24)	3.91 (.22)	.05	.82	5.09 (.24)	5.11 (.22)	.00	.96	13.74	.00	14.44	.00
Col. Appeal & Ind. Picture —	3.90 (.23)	3.97 (.22)	.05	.82	5.12 (.23)	5.00 (.21)	.15	.70	13.51	.00	11.87	.00
Ind. Appeal & Neutral Picture	3.37 (.21)	6.03 (.11)	134.70	.00	5.23 (.22)	3.75 (.16)	31.72	.00	37.45	.00	144.89	.00
F-value	13.56	20.53			5.74	9.40						
p-value	.00	.00			.00	.00						

**Table 5.9c: Mean of Aad in Experiment B-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Picture)	Focal Ad (F.A.)				Competing Ad (C.A.)				N. A. (F.A. and C.A.)			
	N. A.		Chinese		N. A.		Chinese		N. A.		Chinese	
	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Ind. Picture —	5.12	.00	3.69	.00	3.99	.00	4.97	.00	11.74	.00	19.38	.00
Ind. Appeal & Neutral Picture	(.24)		(.24)		(.23)		(.17)					
Ind. Appeal & Col. Picture —	3.83	.05	4.34	.05	4.93	.06	4.38	.06	15.52	.00	.03	.86
Ind. Appeal & Neutral Picture	(.20)		(.15)		(.19)		(.18)					
Col. Appeal & Ind. Picture —	4.95	.08	4.32	.08	4.31	.03	4.93	.03	2.68	.11	5.72	.02
Col. Appeal & Neutral Picture	(.32)		(.20)		(.23)		(.15)					
Col. Appeal & Col. Picture —	3.72	.00	5.14	.00	5.02	.01	4.07	.01	14.52	.00	12.31	.00
Col. Appeal & Neutral Picture	(.28)		(.21)		(.20)		(.22)					
Ind. Appeal & Ind. Picture —	5.68	.00	3.56	.00	3.70	.00	4.90	.00	160.78	.00	23.87	.00
Col. Appeal & Neutral Picture	(.10)		(.20)		(.12)		(.19)					
Ind. Appeal & Col. Picture —	4.37	.98	4.38	.98	5.13	.58	4.98	.58	5.94	.02	4.42	.04
Col. Appeal & Neutral Picture	(.25)		(.21)		(.18)		(.20)					
Col. Appeal & Ind. Picture —	4.14	.69	4.27	.69	5.03	.62	4.89	.62	11.34	.00	4.06	.05
Col. Appeal & Neutral Picture	(.18)		(.23)		(.20)		(.20)					
Ind. Appeal & Col. Picture —	3.82	.00	5.89	.00	4.92	.00	3.92	.00	15.16	.00	168.61	.00
Col. Appeal & Neutral Picture	(.19)		(.06)		(.21)		(.14)					
F-value	10.28		15.05		7.77		5.67					
p-value	.00		.00		.00		.00					

**Table 5.9d: Mean of Cb in Experiment B-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Picture)	Focal Ad (F.A.)				Competing Ad (C.A.)				N. A. (F.A. and C.A.)			
	N. A.		Chinese		N. A.		Chinese		N. A.		Chinese	
	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Ind. Picture —	4.85	.02	4.16	.02	3.91	.00	5.14	.00	7.19	.01	12.55	.00
Ind. Appeal & Neutral Picture	(.20)		(.19)		(.29)		(.20)					
Ind. Appeal & Col. Picture —	3.72	.00	4.63	.00	5.05	.53	4.86	.53	23.10	.00	.70	.41
Ind. Appeal & Neutral Picture	(.20)		(.19)		(.19)		(.20)					
Col. Appeal & Ind. Picture —	4.66	.43	4.35	.43	4.47	.48	4.72	.48	.20	.66	1.36	.25
Col. Appeal & Neutral Picture	(.32)		(.23)		(.27)		(.22)					
Col. Appeal & Col. Picture —	3.84	.04	4.60	.04	4.94	.02	4.16	.02	7.70	.01	2.34	.13
Col. Appeal & Neutral Picture	(.27)		(.21)		(.28)		(.19)					
Ind. Appeal & Ind. Picture —	5.70	.00	4.11	.00	3.50	.00	4.90	.00	86.94	.00	7.85	.01
Col. Appeal & Neutral Picture	(.13)		(.21)		(.19)		(.19)					
Ind. Appeal & Col. Picture —	3.69	.05	4.13	.05	4.87	.51	5.06	.51	27.11	.00	11.70	.00
Col. Appeal & Neutral Picture	(.15)		(.16)		(.17)		(.22)					
Col. Appeal & Ind. Picture —	3.74	.03	4.27	.03	5.14	.19	4.80	.19	25.66	.00	5.71	.02
Ind. Appeal & Neutral Picture	(.17)		(.16)		(.22)		(.15)					
Col. Appeal & Col. Picture —	3.78	.00	5.95	.00	4.96	.00	3.62	.00	14.78	.00	118.37	.00
Ind. Appeal & Neutral Picture	(.22)		(.13)		(.22)		(.17)					
F-value	13.90		10.52		7.13		7.21					
p-value	.00		.00		.00		.00					

**Table 5.9e: Mean of Ab in Experiment B-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Picture)	Focal Ad (F.A.)				Competing Ad (C.A.)				N. A. (F.A. and C.A.)		Chinese (F.A. and C.A.)			
	N. A.		Chinese		N. A.		Chinese		ANOVA		ANOVA			
	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value		
Ind. Appeal & Ind. Picture —	5.55 (.23)	.00	3.82 (.18)	.00	3.88 (.14)	.00	5.11 (.16)	.00	28.73	.00	39.14	.00	28.96	.00
Ind. Appeal & Neutral Picture	4.09 (.23)	.00	5.20 (.25)	.00	4.89 (.22)	.00	4.39 (.25)	.17	1.91	.02	6.20	.02	5.36	.02
Col. Appeal & Ind. Picture —	5.23 (.33)	.02	4.25 (.23)	.02	4.08 (.35)	.02	5.22 (.22)	.01	8.33	.01	5.81	.02	9.20	.00
Col. Appeal & Neutral Picture	3.81 (.30)	.00	5.54 (.16)	.00	4.98 (.17)	.00	4.20 (.16)	.00	9.57	.00	11.63	.00	34.70	.00
Ind. Appeal & Ind. Picture —	5.86 (.12)	.00	3.97 (.19)	.00	3.38 (.15)	.00	5.02 (.18)	.00	43.02	.00	173.58	.00	16.00	.00
Col. Appeal & Col. Picture —	4.36 (.24)	.05	3.75 (.18)	.05	4.91 (.18)	.05	5.00 (.14)	.71	.14	.07	3.44	.07	29.66	.00
Col. Appeal & Neutral Picture	3.75 (.20)	.03	4.37 (.20)	.03	5.03 (.14)	.03	4.92 (.16)	.63	.24	.00	27.96	.00	4.59	.04
Ind. Appeal & Col. Picture —	3.87 (.20)	.00	6.06 (.10)	.00	5.05 (.21)	.00	3.79 (.15)	.70	24.95	.00	16.29	.00	155.25	.00
Ind. Appeal & Neutral Picture	13.70		20.33		10.73		8.19							
F-value	.00		.00		.00		.00							
p-value														

**Table 5.9f: Mean of CONb in Experiment B-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Picture)	Focal Ad (F.A.)				Competing Ad (C.A.)				N. A. (F.A. and C.A.)		Chinese (F.A. and C.A.)			
	N. A.		Chinese		N. A.		Chinese		ANOVA		ANOVA			
	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value		
Ind. Appeal & Ind. Picture —	4.76 (.21)	.34	4.41 (.25)	.34	3.76 (.19)	.00	5.21 (.26)	.00	15.02	.00	12.58	.00	4.83	.03
Ind. Appeal & Neutral Picture	4.11 (.32)	.05	4.93 (.25)	.05	4.33 (.35)	.26	4.77 (.21)	.26	1.28	.64	.22	.64	.26	.61
Col. Appeal & Ind. Picture —	4.66 (.35)	.14	4.06 (.23)	.14	3.97 (.23)	.26	4.41 (.26)	.26	1.29	.11	2.73	.11	1.00	.32
Col. Appeal & Neutral Picture	4.44 (.38)	.74	4.58 (.25)	.74	5.03 (.42)	.06	4.15 (.25)	.06	3.79	.30	1.11	.30	1.57	.22
Ind. Appeal & Ind. Picture —	5.66 (.11)	.00	4.08 (.23)	.00	3.77 (.14)	.00	5.00 (.19)	.00	24.19	.00	116.94	.00	9.88	.00
Col. Appeal & Col. Picture —	4.61 (.21)	.23	4.24 (.23)	.23	5.04 (.21)	.41	4.78 (.23)	.41	.70	.16	2.08	.16	2.82	.10
Col. Appeal & Neutral Picture	4.20 (.24)	.30	4.51 (.19)	.30	5.02 (.19)	.65	4.89 (.19)	.65	.21	.01	7.11	.01	1.97	.17
Ind. Appeal & Col. Picture —	4.08 (.25)	.00	5.88 (.11)	.00	4.98 (.22)	.00	4.10 (.17)	.00	10.07	.01	7.26	.01	76.77	.00
Ind. Appeal & Neutral Picture	4.24		7.40		5.90		3.36							
F-value	.00		.00		.00		.00							
p-value														



**Table 5.9g: Mean of PI in Experiment B-ANOVAs across Eight Groups between North American and Chinese**

Interaction (Appeal & Picture)	Focal Ad (F. A.)				Competing Ad (C. A.)				N. A. (F. A. and C. A.)				Chinese (F. A. and C. A.)			
	N. A.		Chinese		N. A.		Chinese		N. A.		Chinese		N. A.		Chinese	
	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value	F-value	p-value
Ind. Appeal & Ind. Picture —	5.47	.00	3.09	.00	3.22	.00	5.13	.00	3.22	.00	5.13	.00	3.22	.00	5.13	.00
Ind. Appeal & Neutral Picture	(.21)		(.23)		(.19)		(.26)		(.19)		(.26)		(.19)		(.26)	
Ind. Appeal & Col. Picture —	3.40	.00	5.12	.00	4.84	.00	4.40	.00	4.84	.00	4.40	.00	4.84	.00	4.40	.00
Ind. Appeal & Neutral Picture	(.27)		(.19)		(.36)		(.25)		(.36)		(.25)		(.36)		(.25)	
Col. Appeal & Ind. Picture —	5.08	.00	3.31	.00	4.03	.00	4.95	.00	4.03	.00	4.95	.00	4.03	.00	4.95	.00
Col. Appeal & Neutral Picture	(.21)		(.22)		(.39)		(.26)		(.39)		(.26)		(.39)		(.26)	
Col. Appeal & Col. Picture —	2.80	.00	5.35	.00	5.17	.00	3.04	.00	5.17	.00	3.04	.00	5.17	.00	3.04	.00
Col. Appeal & Neutral Picture	(.28)		(.18)		(.27)		(.21)		(.27)		(.21)		(.27)		(.21)	
Ind. Appeal & Ind. Picture —	5.59	.00	3.17	.00	3.03	.00	5.05	.00	3.03	.00	5.05	.00	3.03	.00	5.05	.00
Col. Appeal & Neutral Picture	(.11)		(.21)		(.23)		(.15)		(.23)		(.15)		(.23)		(.15)	
Ind. Appeal & Col. Picture —	3.69	.00	3.54	.00	4.33	.00	4.92	.00	4.33	.00	4.92	.00	4.33	.00	4.92	.00
Col. Appeal & Neutral Picture	(.30)		(.17)		(.26)		(.19)		(.26)		(.19)		(.26)		(.19)	
Col. Appeal & Ind. Picture —	3.50	.00	3.61	.00	4.83	.00	4.71	.00	4.83	.00	4.71	.00	4.83	.00	4.71	.00
Ind. Appeal & Neutral Picture	(.18)		(.27)		(.18)		(.22)		(.18)		(.22)		(.18)		(.22)	
Col. Appeal & Col. Picture —	3.09	.00	5.88	.00	5.08	.00	3.26	.00	5.08	.00	3.26	.00	5.08	.00	3.26	.00
Ind. Appeal & Neutral Picture	(.22)		(.11)		(.18)		(.18)		(.18)		(.18)		(.18)		(.18)	
F-value	21.13		30.17		10.16		14.51		10.16		14.51		10.16		14.51	
p-value	.00		.00		.00		.00		.00		.00		.00		.00	

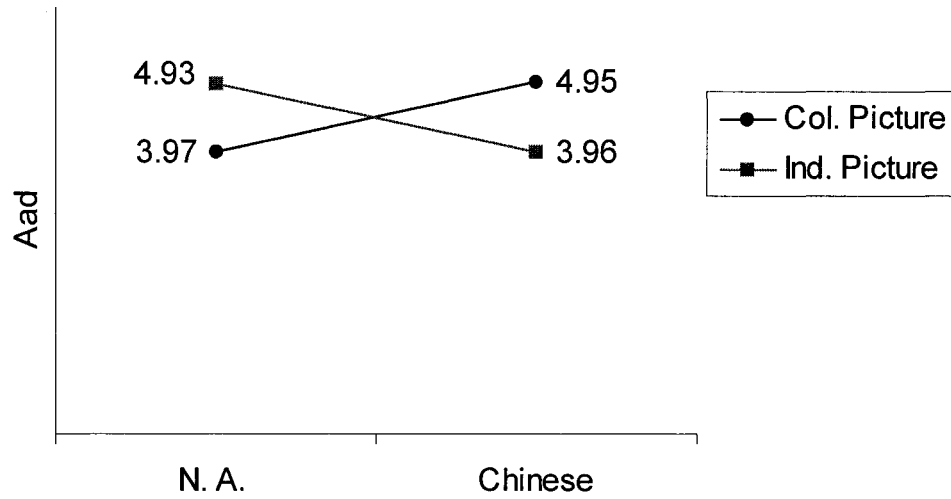
#### 5.1.3.3.2 Interaction effect of culture, appeal, picture and competition on consumer brand choice behaviors

Two-way MANOVAs were first run to examine the interaction effects of culture by appeal, culture by picture, and appeal by picture. The results reveal that all interaction effects are significant. Since the manipulation checks of appeal and picture in Experiment 2 already provide strong evidence that North American and Chinese subjects respond differently to two kinds of culture-laden advertising appeals, and two types of culture-laden advertising pictures respectively, I would not go further to discuss the interaction effects of culture by appeal and culture by picture (Figure 5.5). However, I emphasized the significant interaction effect of appeal by picture: Cad ( $F(1, 397) = 15.51, p < .01$ ), AFFad ( $F(1, 397) = 9.33, p < .01$ ), Aad ( $F(1, 397) = 6.35, p < .05$ ), Cb ( $F(1, 397) = 23.69, p < .05$ ), Ab ( $F(1, 397) = 17.35, p < .01$ ), CONb ( $F(1, 397) = 6.30, p < .05$ ) and PI ( $F(1, 397) = 13.29, p < .01$ ). The results shown in Figure 5.6 indicate that the ads matching advertising appeal to advertising picture evoke more favorable responses on the measures of consumer brand choice behaviors than the mixed unmatched ads.

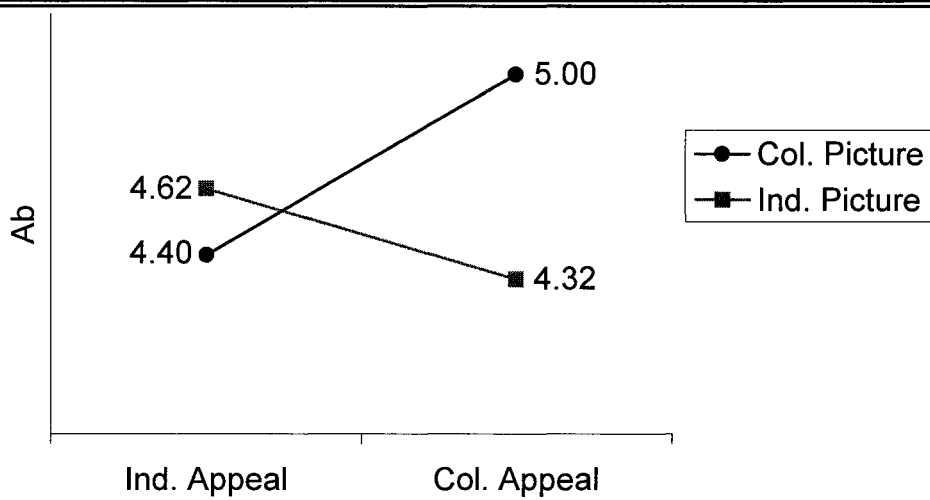
In addition, examination of the interaction between appeal and picture for North American and Chinese subjects reveals significant difference between the individualists and collectivists. For example, in the individualistic appeal/individualistic picture condition, the scores of the measures of consumer brand choice behaviors between the two groups were: Cad ( $M = 5.37$  vs.  $M = 4.02, F(1, 97) = 40.85, p < .01$ ), AFFad ( $M = 5.41$  vs.  $M = 3.56, F(1, 97) = 71.50, p < .01$ ), Aad ( $M = 5.44$  vs.  $M = 3.62, F(1, 97) = 70.74, p < .01$ ), Cb ( $M = 5.33$  vs.  $M = 4.13, F(1, 97) = 34.36, p < .01$ ), Ab ( $M = 5.73$  vs.  $M = 3.89, F(1, 97) = 93.00, p < .01$ ), CONb ( $M = 5.27$  vs.  $M = 4.24, F(1, 97) = 19.50, p <$

.01), and PI ( $M = 5.54$  vs.  $M = 3.13$ ,  $F(1, 97) = 131.31$ ,  $p < .01$ ). As expected, the results suggested that the focal ad and brand, which contained an individualistic appeal and an individualistic picture, receive higher ratings on Cad, AFFad, Aad, Cb, Ab, CONb and PI from North American subjects and lower ratings on those measures from Chinese subjects. Also, as shown in Figure 5.7, there is also significant difference between the North American and Chinese subjects in the collectivistic appeal/collectivistic picture condition. In this condition, the results suggest an opposite pattern that Chinese subjects give higher ratings and North American subjects report lower ratings for the focal ad and brand: Cad ( $M = 5.39$  vs.  $M = 4.09$ ,  $F(1, 101) = 36.05$ ,  $p < .01$ ), AFFad ( $M = 5.54$  vs.  $M = 3.35$ ,  $F(1, 101) = 118.29$ ,  $p < .01$ ), Aad ( $M = 5.51$  vs.  $M = 3.78$ ,  $F(1, 101) = 78.88$ ,  $p < .01$ ), Cb ( $M = 5.26$  vs.  $M = 3.81$ ,  $F(1, 101) = 39.93$ ,  $p < .01$ ), Ab ( $M = 5.79$  vs.  $M = 3.85$ ,  $F(1, 101) = 109.91$ ,  $p < .01$ ), CONb ( $M = 5.22$  vs.  $M = 4.21$ ,  $F(1, 101) = 15.14$ ,  $p < .01$ ), and PI ( $M = 5.61$  vs.  $M = 2.98$ ,  $F(1, 101) = 182.90$ ,  $p < .01$ ). Moreover, in either the individualistic appeal/collectivistic picture condition or in the collectivistic appeal/individualistic picture condition, no significant difference is found between the North American and Chinese subjects.

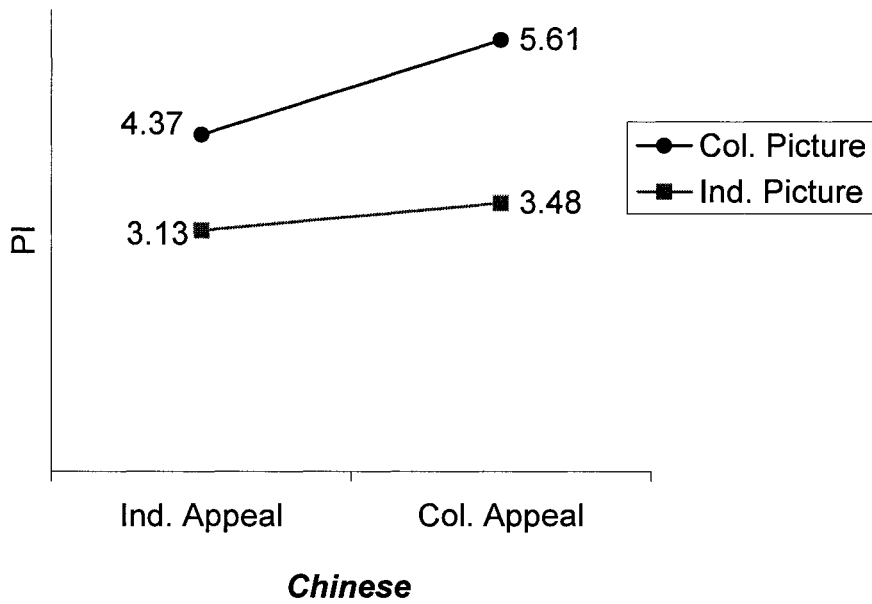
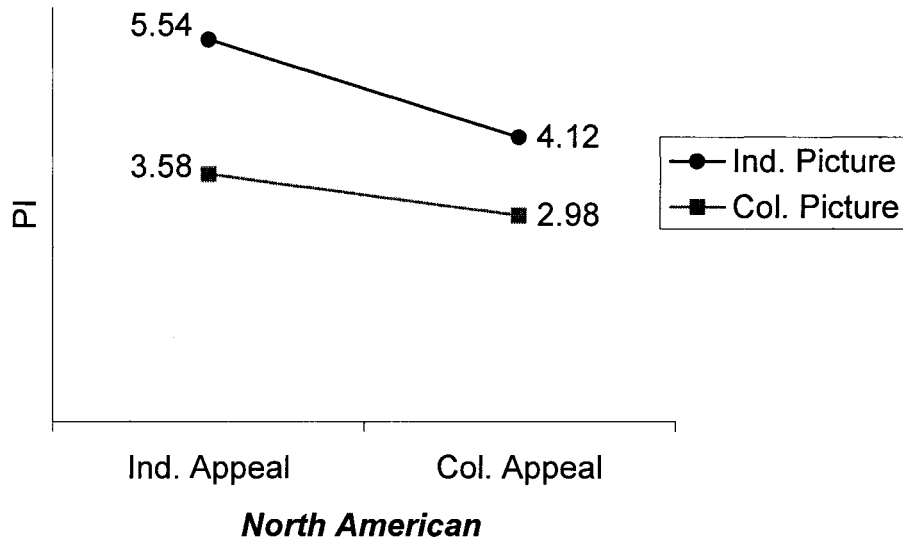
**Figure 5.5**  
**Two-way culture by Picture**  
**Interaction on Aad**



**Figure 5.6**  
**Two-way Appeal by Picture**  
**Interaction on Ab**

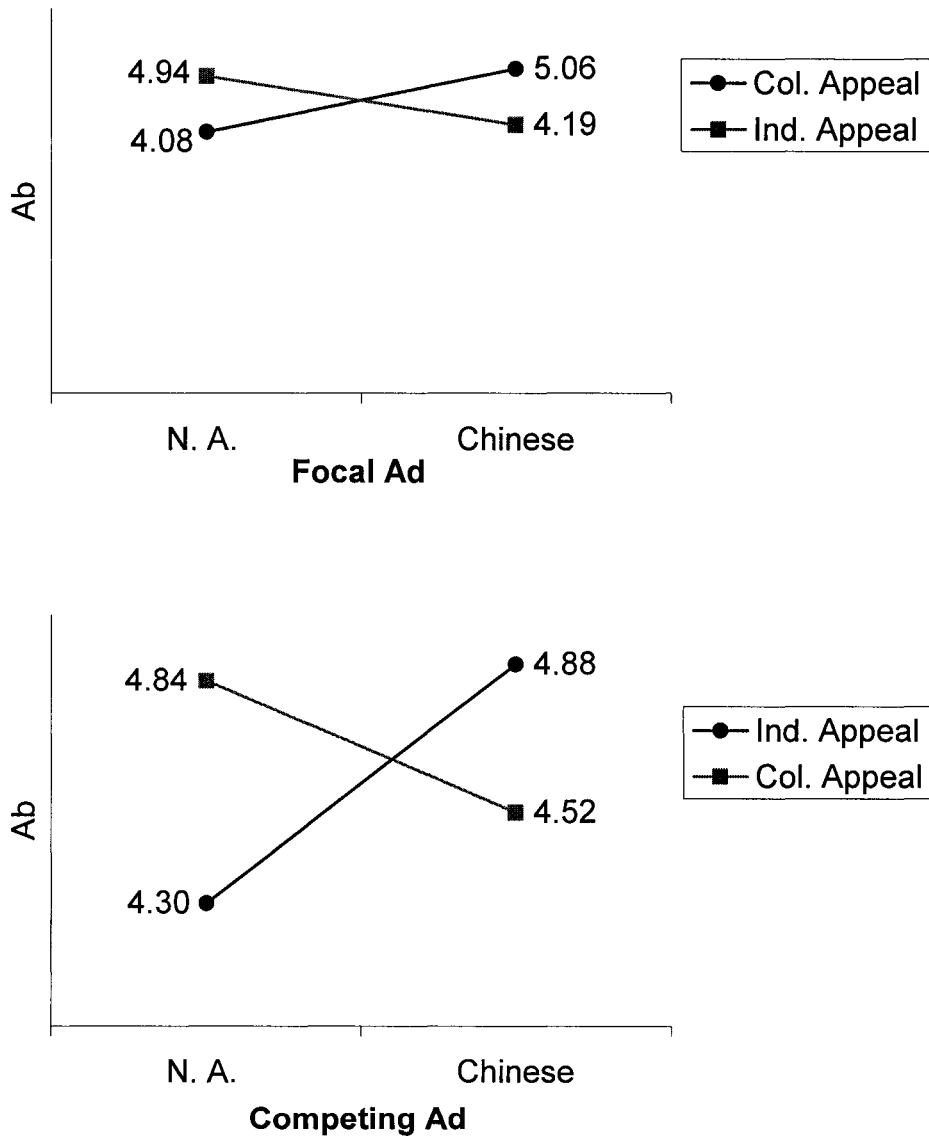


**Figure 5.7**  
**Three-way Culture by Appeal by**  
**Picture Interaction on PI**



The three way interaction between culture, advertising appeal and competition is statistically significant (Cad ( $F(1, 802) = 3.07, p < .10$ ), AFFad ( $F(1, 802) = 8.46, p < .01$ ), Aad( $F(1, 802) = 14.01, p < .01$ ), Cb ( $F(1, 802) = 2.88, p < .10$ ), Ab ( $F(1, 802) = 9.15, p < .01$ ), CONb ( $F(1, 802) = 6.21, p < .05$ ), and PI ( $F(1, 802) = 8.59, p < .01$ ). In addition, a significant culture by culture-laden advertising appeal interaction effect was also observed from the focal ad and competing ad: Cad ( $F(1, 401) = 25.53, p < .01$  for the focal ad;  $F(1, 401) = 18.14, p < .01$  for the competing ad), AFFad ( $F(1, 401) = 33.03, p < .01$  for the focal ad;  $F(1, 401) = 18.62, p < .01$  for the competing ad), Aad ( $F(1, 401) = 43.40, p < .01$  for the focal ad;  $F(1, 401) = 12.11, p < .01$  for the competing ad), Cb ( $F(1, 401) = 20.54, p < .01$  for the focal ad;  $F(1, 401) = 29.92, p < .01$  for the competing ad), Ab ( $F(1, 401) = 47.59, p < .01$  for the focal ad;  $F(1, 401) = 17.74, p < .01$  for the competing ad), CONb ( $F(1, 401) = 11.44, p < .01$  for the focal ad;  $F(1, 401) = 18.68, p < .01$  for the competing ad) and PI ( $F(1, 401) = 37.14, p < .01$  for the focal ad;  $F(1, 401) = 47.71, p < .01$  for the competing ad). Figure 5.8 is a graphic representation of this interaction, indicating that the mixed culture and appeal conditions significantly influence subjects' responses to the focal ad and competing ad.

**Figure 5.8**  
**Three-way Culture by Appeal by**  
**Competition Interaction on Ab**



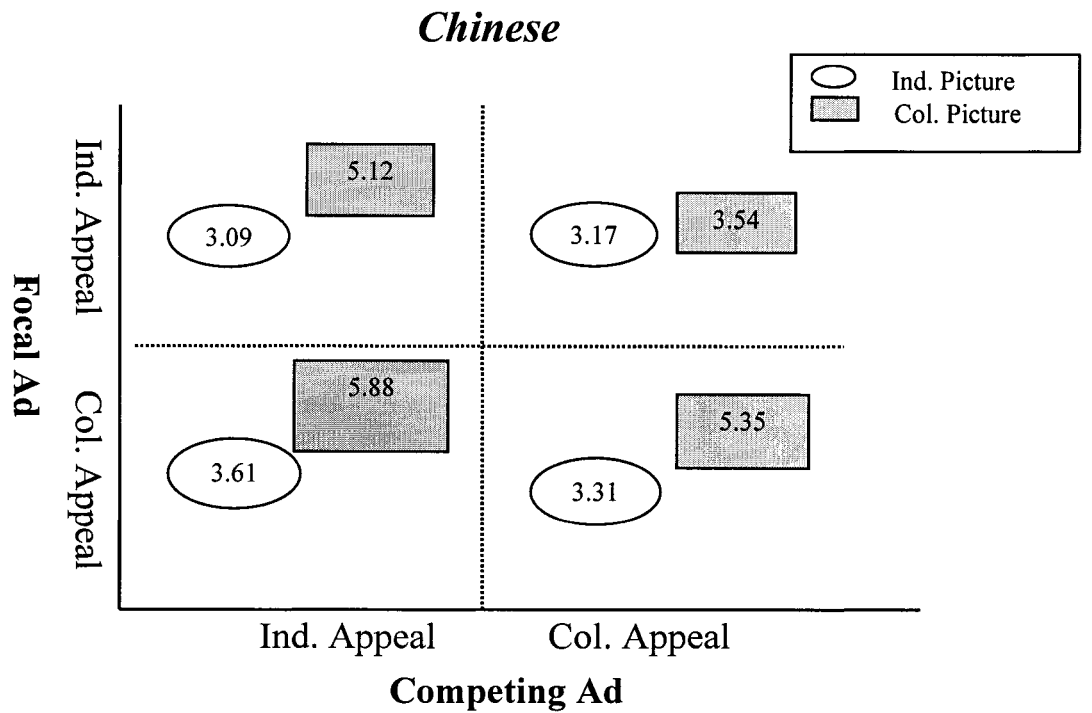
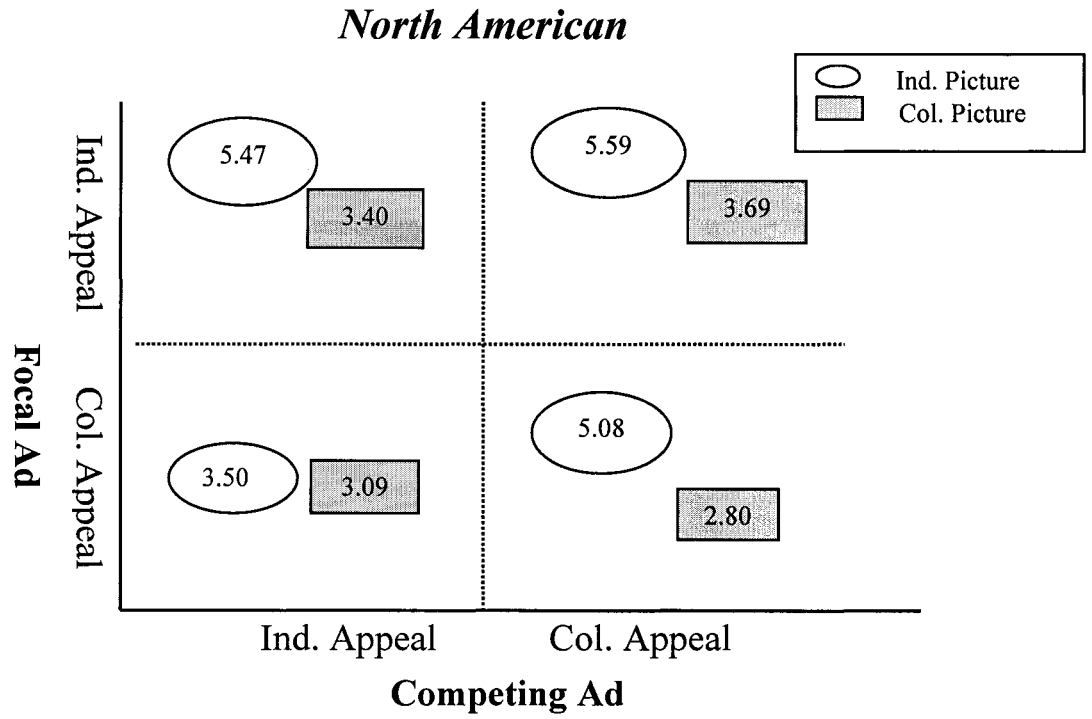
Finally, in a manner similar to Experiment 1, I analyze the interaction effect of competition with culture, appeal and picture. As predicted, when the competing ad

contains a collectivistic-laden advertising appeal, the focal ad with an individualistic-laden advertising appeal and picture which convey self-expression information exerts the greatest influence on Cad, AFFad, Aad, Cb, Ab, CONb and PI among North American subjects. According to Group 5 in Table 5.9 the cell means associated with the experimental factors and interactions show these results: Cad ( $M_{highest} = 5.70$ ,  $F(7, 146) = 6.99$ ,  $p < .01$ ), AFFad ( $M_{highest} = 5.77$ ,  $F(7, 146) = 13.56$ ,  $p < .01$ ), Aad ( $M_{highest} = 5.68$ ,  $F(7, 146) = 10.28$ ,  $p < .01$ ), Cb ( $M_{highest} = 5.70$ ,  $F(7, 146) = 13.90$ ,  $p < .01$ ), Ab ( $M_{highest} = 5.86$ ,  $F(7, 146) = 13.70$ ,  $p < .01$ ), CONb ( $M_{highest} = 5.66$ ,  $F(7, 146) = 4.24$ ,  $p < .01$ ), and PI ( $M_{highest} = 5.59$ ,  $F(7, 146) = 21.13$ ,  $p < .01$ ). However, when a competing ad contains an individualistic-laden advertising appeal, the interaction of the collectivistic-laden advertising appeal and collectivistic-laden advertising picture in a focal ad have the strongest influence on these measures among Chinese respondents. For example, Chinese subjects report the opposite pattern with a significant highest scores in group 8 (Cad ( $M_{highest} = 5.87$ ,  $F(7, 216) = 11.84$ ,  $p < .01$ ), AFFad ( $M_{highest} = 6.03$ ,  $F(7, 216) = 20.53$ ,  $p < .01$ ), Aad ( $M_{highest} = 5.89$ ,  $F(7, 216) = 15.05$ ,  $p < .01$ ), Cb ( $M_{highest} = 5.95$ ,  $F(7, 216) = 10.52$ ,  $p < .01$ ), Ab ( $M_{highest} = 6.06$ ,  $F(7, 216) = 20.33$ ,  $p < .01$ ), CONb ( $M_{highest} = 5.88$ ,  $F(7, 216) = 7.40$ ,  $p < .01$ ), and PI ( $M_{highest} = 5.88$ ,  $F(7, 216) = 30.17$ ,  $p < .01$ ). Furthermore, I also expected that the focal ad and brand in Group 8 would receive the lowest scores on those measures from North American group, since both the appeal and picture in the focal ad in that group did not match North American culture values. However, the results do not support this argument. The reasons seem to be that the effects are driven by an appeal by picture interaction. When an appeal matches a picture, the scores on the measures are higher than observed for the mismatch ads. Similar to Group 8, the focal ad



and brand in Group 5 do not receive the lowest scores from Chinese subjects. Figure 5.9 depicts these results. Overall, my hypotheses H10b and H10d are not supported, but hypotheses H10a and H10c are strongly supported, indicating that North American subjects rate a focal ad, containing an individualistic appeal and a picture expressing individualistic cultural values, higher on Cad, AFFad, Aad, Cb, Ab, CONb and PI when competing ads contain collectivistic appeals as compared to individualistic appeals. In contrast, Chinese subjects rate a focal ad, containing a collectivistic appeal and a picture expressing collectivistic cultural values, higher on Cad, AFFad, Aad, Cb, Ab, CONb and PI when competing ads contain individualistic appeals as compared to collectivistic appeals.

**Figure 5.9**  
**Four-way Interaction on PI**



#### 5.1.3.4 Summary

Similar to Experiment 1, the effects of culture, culture-laden advertising appeal and competition on consumer brand choice behaviors were also examined in experiment 2. The results of the two studies were consistent. Again, the findings from Experiment 2 suggest that competing ads and brands influence subjects' responses to the focal ad and the focal brand. The competitive effects on consumer attitudes and purchase behaviors are significant for both North American and Chinese groups.

More importantly, the findings from Experiment 2 show that there are significant differences in how individuals from North American and Chinese cultures respond to the culture-laden advertising pictures. When an ad contains an appropriate, individualistic visual element, it can increase North American subjects' ad and brand evaluations while a collectivistic picture elicits positive Chinese subjects' ad and brand evaluations. Hence, Experiment 2 not only further confirms the findings obtained in Experiment 1 that culture, advertising appeal and competition significantly influence consumer attitudes and purchase behaviors, but also indicates that culture-laden advertising picture can interact with these variables to enhance their effects on consumer brand choice behaviors. The results from Experiment 2 increase my understanding of how culture-laden picture can be influential.

The findings of Experiment 1 and 2 support that culture, appeal, argument strength, picture and competition influence consumers' responses to ads and brands. However, the question of how competing ads and brands influence a focal ad and brand, and how participants with distinct cultural backgrounds make a brand choice in the

multiple-ad, and the multiple-brand environment is still unknown. The next section is conducted to address this question.

## 5.2 Testing the extended competitive vulnerability model

The extended competitive vulnerability model in Figure 4 was analyzed by using the maximum likelihood method (i.e., ML), with EQS software (Bentler, 1992; Barbara, 1994). Based on the aggregate data from experiment 1 and 2, the extended model was first tested separately for the North American and Chinese subjects. Second, a comparison between the two groups was conducted to examine whether the measurement items of the proposed model are invariant across the North American and Chinese consumers. Third, I then went further to examine whether the structural relationships of the proposed model are invariant across the two groups.

### 5.2.1 Baseline models

As a pre-requisite to making the two-group comparison, it is customary to first establish baseline models for North American, and Chinese subjects, respectively. In order to examine the causal relationships among Cad, AFFad, Aad, Cb, Ab, CONb and PI for both groups, the proposed extended competitive vulnerability models were analyzed using the ML method, with EQS software (Bentler, 1992; Barbara, 1994). Assessment of the overall proposed model fit for each group was based on: (1) the comparative fit index (CFI values  $> .90$  are indicative of good fit, Hu & Bentler, 1999), and (2) acceptability criterion for chi-square (less than 3 times the number of degree of freedom, Carmines & McIver, 1981). By applying the aggregate data of Experiment 1 and 2 (321 North American subjects and 462 Chinese subjects for the two experiments), the results of the structural analyses indicate a very good performance of the proposed model. For the

North American subjects, the overall fit of the proposed model is excellent (i.e.,  $\chi^2 = 1700.35$  with 868 degrees of freedom and CFI = .94, standardized RMR = .14, and RMSEA = .06). Similarly, the overall fit of the proposed model for Chinese subjects is also excellent (i.e.,  $\chi^2 = 2162.74$  with 868 degrees of freedom and CFI = .93, standardized RMR = .13, and RMSEA = .06). These results suggest that the observed structure is consistent with the proposed framework of the consumer brand choice process.

Table 5.10 presents the standardized parameters of the relationships included in the structural model with their corresponding t-values. For North American group, twenty-six of thirty-four hypothesized paths are significant and thirty-one of thirty-four relationships are in the hypothesized direction. Another three of relationships are not in the hypothesized direction and significant. Similarly, for Chinese subjects, I find that twenty-five of hypothesized paths are significant and thirty of relationships are in the hypothesized direction. The coefficients of the measurement and structural equations in both baseline models range from -.30 to .99 and most |t-test| values far above 1.96 (Anderson & Gerbing, 1988). The standardized estimates for the baseline models across North American and Chinese consumers are shown in Figure 5.10.

*Competitive Cad and AFFad effects on Aad (H1 and H2)*

Cad1 ↔ AFFad1 (.66, t = 9.07, p < .01 for North American subjects; .66, t = 10.91, p < .01 for Chinese subjects) and Cad2 ↔ AFFad2 (.61, t = 8.51, p < .01 for North American subjects; .63, t = 10.43, p < .01 for Chinese subjects) suggest that Cad and AFFad are positively correlated for both the focal ad and competing ad. These results support my expectation of correlated relationships between the constructs (H1). In

addition, the standardized parameters (i.e.,  $Cad1/Cad2 \rightarrow Aad1/Aad2$ ,  $Cad1/Cad2 \rightarrow Aad2/Aad1$ ,  $AFFad1/AFFad2 \rightarrow Aad1/Aad2$ , and  $AFFad1/AFFad2 \rightarrow Aad2/Aad1$ ) show that consumers' attitudes toward a focal ad increase while their cognitive responses of, and affective reactions to, the same ad increase. However, consumers' attitudes toward the competing ad decrease while their cognitive responses of and affective reactions to the same ad increase. Therefore, the results support H2.

*Competitive Aad effects on Cb (H3)*

$Aad1 \rightarrow Cb1$  (.56,  $t = 8.42$ ,  $p < .01$  for North American subjects; .61,  $t = 10.39$ ,  $p < .01$  for Chinese subjects) and  $Aad2 \rightarrow Cb2$  (.59,  $t = 8.89$ ,  $p < .01$  for North American subjects; .56,  $t = 10.12$ ,  $p < .01$  for Chinese subjects) show that consumers' brand cognitions toward a focal brand in the focal ad are positively influenced by their ad attitudes toward the same ad. The results are consistent with previous findings (Brown and Stayman 1992; MacKenzie, Lutz and Belch 1986). In addition,  $Aad1 \rightarrow Cb2$  (- .06,  $t = -1.02$ ,  $p > .10$  for North American subjects; - .003,  $t = -.06$ ,  $p < .10$  for Chinese subjects) suggests that consumers' ad attitudes toward the focal ad negatively influence their brand cognitions toward the competing brand in the competing ad, although the competing effects are not significant. Thus, the findings support H3.

*Competitive Aad and Cb effects on Ab (H4)*

As expected, consumers' ad attitudes toward a focal ad have indirect influence on their brand attitudes toward the focal brand in the focal ad, through their brand cognitions toward the same brand, in addition to their direct effects on brand attitudes toward that brand. These results validate the previous findings (Brown and Stayman 1992; MacKenzie, Lutz and Belch 1986). Moreover, consumers' brand attitudes toward the

focal brand in the focal ad are negatively influenced by their ad attitudes toward the focal ad and brand cognitions toward the same brand. Hence, the results support H4.

*Competitive Cb effects on CONb (H5)*

The standardized parameters for North American subjects ( $Cb1 \rightarrow CONb1$ , .37,  $t = 5.14$ ,  $p < .01$ ,  $Cb2 \rightarrow CONb2$ , .50,  $t = 7.03$ ,  $p < .01$ ,  $Cb1 \rightarrow CONb2$ , -.17,  $t = -2.79$ ,  $p < .01$ , and  $Cb2 \rightarrow CONb1$ , -.05,  $t = -.86$ ,  $p > .10$ ) show that consumers' confidence in evaluating a focal brand in the focal ad increases while their brand cognitions toward the same brand increase. However, their confidence in evaluating the competing brand in the competing ad decreases while their cognitive evaluations of the focal brand increase. Similar results are found in Chinese subjects. Thus, H5 is supported.

*Competitive Ab and CONb effects on PI (H6)*

As expected, Table 5.10 shows that consumer attitudes toward, and confidence in, a focal brand in a focal ad positively influence their purchase intentions toward the same brand. On the contrary, their attitudes and confidence in the competing brand in the competing ad negatively influence their purchase intentions toward the focal brand. Therefore, consumer attitudes toward, and confidence in, a focal brand and competing brands both determine their purchase intentions toward the focal brand. The findings strongly support H6.

**Table 5.10: Baseline Models-Standardized Estimates for North American and Chinese Consumers**

Paths	N. A. Subjects N=321		Chinese Subjects N=462	
	Estimates	t-values	Estimates	t-values
Cad1 → persuasive	.93	fixed	.94	Fixed
Cad1 → informative	.92	29.91	.92	36.39
Cad1 → meaningful	.90	27.61	.90	34.09
Cad1 → realistic	.86	24.10	.85	28.93
Cad1 → individual values	.86	24.20	.87	30.82
Cad2 → persuasive	.91	fixed	.92	Fixed
Cad2 → informative	.90	25.51	.93	35.50
Cad2 → meaningful	.86	23.36	.91	33.33
Cad2 → realistic	.85	22.48	.87	29.18
Cad2 → individual values	.87	23.85	.85	27.72
AFFad1 → pleasant	.92	fixed	.93	Fixed
AFFad1 → excited	.84	18.57	.85	22.06
AFFad2 → pleasant	.92	fixed	.93	Fixed
AFFad2 → excited	.85	18.57	.83	19.95
Aad1 → good	.84	fixed	.85	Fixed
Aad1 → favorable	.88	20.48	.89	25.52
Aad1 → creative	.86	19.87	.88	24.81
Aad1 → attractive	.92	22.07	.91	26.82
Aad2 → good	.89	fixed	.86	Fixed
Aad2 → favorable	.84	20.66	.82	22.09
Aad2 → creative	.85	21.21	.85	23.04
Aad2 → attractive	.91	24.16	.91	25.95
Cb1 → functions	.76	fixed	.73	Fixed
Cb1 → quality	.78	10.73	.73	12.16
Cb2 → functions	.76	fixed	.80	Fixed
Cb2 → quality	.75	10.77	.73	12.62
Ab1 → like	.90	fixed	.89	Fixed
Ab1 → satisfactory	.81	18.44	.82	22.37
Ab1 → appeal	.86	20.50	.88	25.54
Ab2 → like	.85	fixed	.82	Fixed
Ab2 → satisfactory	.82	16.99	.80	18.04
Ab2 → appeal	.83	17.26	.80	18.23
CONb1 → confidence	.79	fixed	.78	Fixed
CONb1 → certainty	.98	11.65	.99	15.29
CONb2 → confidence	.81	fixed	.82	Fixed
CONb2 → certainty	.97	15.45	.99	17.86



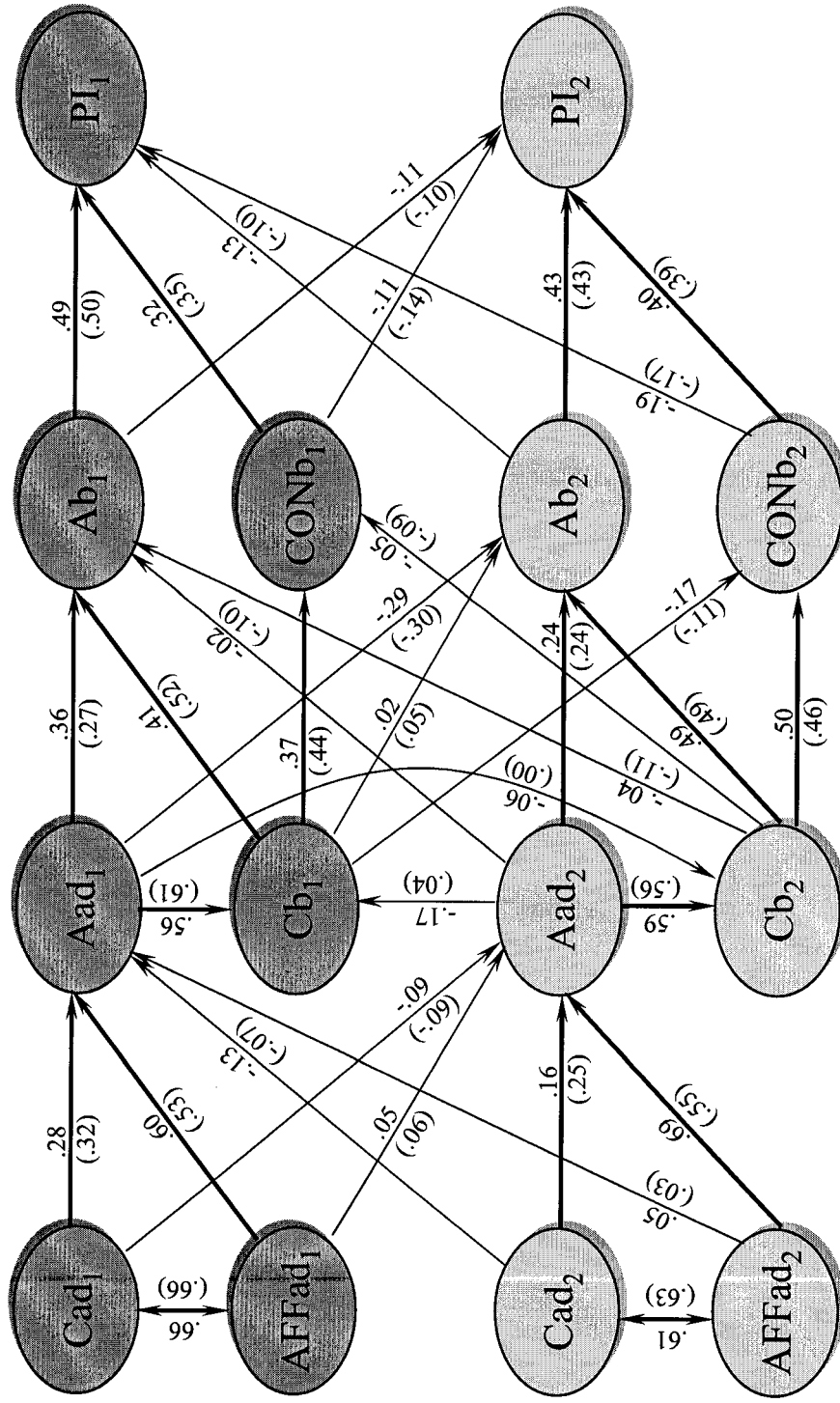
**Table 5.10: Baseline Models-Standardized Estimates for North American and Chinese Consumers**

Paths	N. A. Subjects N=321		Chinese Subjects N=462	
	Estimates	t-values	Estimates	t-values
PI1 → intend to buy	.92	fixed	.91	fixed
PI1 → consider buying	.93	29.32	.94	35.16
PI1 → expect to buy	.94	30.83	.95	36.99
PI1 → plan to buy	.94	30.22	.95	36.55
PI2 → intend to buy	.90	fixed	.89	fixed
PI2 → consider buying	.89	24.10	.90	30.01
PI2 → expect to buy	.94	28.27	.95	34.01
PI2 → plan to buy	.92	26.45	.93	32.16
Cad1 ↔ AFFad1	.66	9.07	.66	10.91
Cad2 ↔ AFFad2	.61	8.51	.63	10.43
Cad1 → Aad1	.28	4.86	.32	6.63
AFFad1 → Aad1	.60	9.30	.53	9.80
Cad2 → Aad1	-.13	-2.59	-.07	-1.45
AFFad2 → Aad1	.05	1.01	.03	.57
Aad1 → Cb1	.56	8.42	.61	10.39
Aad2 → Cb1	-.17	-2.87	.04	.69
Aad1 → Ab1	.36	5.43	.27	4.72
Cb1 → Ab1	.41	5.32	.52	7.40
Aad2 → Ab1	-.02	-.22	-.10	-2.02
Cb2 → Ab1	-.04	-.51	-.11	-1.94
Cb1 → CONb1	.37	5.14	.44	7.14
Cb2 → CONb1	-.05	-.86	-.09	-1.77
Ab1 → PI1	.49	10.16	.50	12.29
CONb1 → PI1	.32	7.13	.35	9.35
Ab2 → PI1	-.13	-2.76	-.10	-2.62
CONb2 → PI1	-.19	-4.28	-.17	-4.77
Cad1 → Aad2	-.09	-1.52	-.09	-1.69
AFFad1 → Aad2	.05	.92	.06	1.10
Cad2 → Aad2	.16	2.84	.25	4.88
AFFad2 → Aad2	.69	10.69	.55	9.68
Aad1 → Cb2	-.06	-1.02	-.00	-.06
Aad2 → Cb2	.59	8.89	.56	10.12
Aad1 → Ab2	-.29	-4.45	-.30	-5.16
Cb1 → Ab2	.02	.24	.05	.84
Aad2 → Ab2	.24	3.53	.24	4.18
Cb2 → Ab2	.49	6.08	.49	7.22

**Table 5.10: Baseline Models-Standardized Estimates for North American and Chinese Consumers**

Paths	N. A. Subjects N=321		Chinese Subjects N=462	
	Estimates	t-values	Estimates	t-values
Cb1 → CONb2	-.17	-2.79	-.11	-2.26
Cb2 → CONb2	.50	7.03	.46	7.86
Ab1 → PI2	-.11	-2.36	-.10	-2.59
CONb1 → PI2	-.11	-2.66	-.14	-3.66
Ab2 → PI2	.43	8.14	.43	9.76
CONb2 → PI2	.40	8.12	.39	9.69

Figure 5.10: Standardized Estimates for the Baseline Models across Two Cultures



Note: The first number represents N.A. consumers and the one in parentheses represents Chinese consumers.  
 Cad<sub>1</sub>=Ad Cognition for ad1; AFFad<sub>1</sub>=Ad affect for ad1;  
 Aad<sub>1</sub>=Attitude toward ad1; Cb<sub>1</sub>=Brand cognition for brand1;  
 Ab<sub>1</sub>=Attitude toward brand1;  
 CONb<sub>1</sub>=Confidence in evaluating brand1;  
 PI<sub>1</sub>=Purchase intention toward brand1;

### 5.2.2 Measurement Model

The baseline models offer separate assessments of the applicability of the relationships to each subject group. The statistical significance of the between-group difference in the proposed mechanisms of consumer brand choice behaviors was tested in a subsequent multi-sample model, imposing measurement equality constraints between North American and Chinese subjects. A more stringent test was enforced by holding the elements of the measurement model equal across the two groups. The path coefficients, t-values and LM (Lagrange-Multiplier) tests for releasing constraints are summarized in Table 5.11. In this initial test of invariance, all constraints held in the associated probabilities are greater than .05. The results clearly indicate an excellent fit. Hence, I conclude that the items comprising Cad, AFFad, Aad, Cb, Ab, CONb and PI are essentially identical for the North American and Chinese subjects.

### 5.2.3 Structural Model

In the third level of analysis, additional constraints were added to test for invariance of the structural parameters. In the subsequent test of equality, all the invariance constraints held (i.e., all probability values were  $> .05$ ), and all the structural relationships, were in the hypothesized directions (Table 5.11). The results of the aggregate-level structural analysis show a very good performance of the model (CFI = .94, standardized RMR = .14, and RMSEA = .04), with a chi-square of 3888.33 (df = 1800,  $p < .001$ ).

Accordingly, these results support my expectation that consumer cognitive responses of, and affective reactions to, a focal ad positively influence their ad attitudes, brand cognitions, brand attitudes, confidence levels, purchase intentions, and final choice

of the focal brand in the focal ad versus the competing brands in the competing ads. These findings confirm my H1-H6. In addition, all the equality constraints of measurement and structural parameters held in that the associated probabilities are  $> .05$ , thus supporting my H7 and H8. Overall, I conclude that all elements of the extended competitive vulnerability model operate similarly for North American and Chinese consumers.

**Table 5.11: Comparison of the Extended Competitive Vulnerability Model across North American and Chinese**

Paths	N. A. Subjects N=321		Chinese Subjects N=462		LM Test for Releasing Constraints	
	Estimates	t-values	Estimates	t-values	$\chi^2$	Probability
Cad1 → persuasive	.93	fixed	.94	fixed	--	fixed
Cad1 → informative	.92	46.45	.92	46.45	.00	.96
Cad1 → meaningful	.90	43.86	.90	43.86	.08	.77
Cad1 → realistic	.86	37.65	.85	37.65	.33	.56
Cad1 → individual values	.86	39.13	.87	39.13	.01	.95
Cad2 → persuasive	.91	fixed	.92	fixed	--	fixed
Cad2 → informative	.90	43.81	.93	43.81	.62	.43
Cad2 → meaningful	.87	40.79	.91	40.79	1.70	.19
Cad2 → realistic	.85	36.88	.87	36.88	.09	.76
Cad2 → individual values	.87	36.71	.85	36.71	.72	.40
AFFad1 → pleasant	.92	fixed	.93	fixed	--	fixed
AFFad1 → excited	.84	28.69	.85	28.69	.02	.89
AFFad2 → pleasant	.93	fixed	.92	fixed	--	fixed
AFFad2 → excited	.85	27.27	.83	27.27	.01	.95
Aad1 → good	.84	fixed	.85	fixed	--	fixed
Aad1 → favorable	.88	32.80	.89	32.80	.21	.65
Aad1 → creative	.87	31.62	.87	31.62	1.16	.28
Aad1 → attractive	.92	34.62	.91	34.62	.01	.95
Aad2 → good	.89	fixed	.86	fixed	--	fixed
Aad2 → favorable	.83	30.15	.83	30.15	.64	.42
Aad2 → creative	.85	31.16	.84	31.16	.04	.85
Aad2 → attractive	.91	35.28	.90	35.28	.43	.51
Cb1 → functions	.76	fixed	.73	fixed	--	fixed
Cb1 → quality	.76	16.23	.74	16.23	.45	.50
Cb2 → functions	.78	fixed	.79	fixed	fixed	fixed
Cb2 → quality	.74	16.83	.74	16.83	.17	.68
Ab1 → like	.89	fixed	.89	fixed	--	fixed
Ab1 → satisfactory	.81	28.87	.81	28.87	.06	.81
Ab1 → appeal	.87	32.61	.88	32.61	.09	.76
Ab2 → like	.84	fixed	.83	fixed	--	fixed
Ab2 → satisfactory	.82	24.54	.80	24.54	.02	.90
Ab2 → appeal	.82	24.86	.81	24.86	.37	.54
CONb1 → confidence	.79	fixed	.78	fixed	--	fixed
CONb1 → certainty	.98	19.24	.99	19.24	.19	.67
CONb2 → confidence	.80	fixed	.82	fixed	--	fixed
CONb2 → certainty	.98	23.67	.98	23.67	.10	.76

**Table 5.11: Comparison of the Extended Competitive Vulnerability Model across North American and Chinese**

Paths	N. A. Subjects N=321		Chinese Subjects N=462		LM Test for Releasing Constraints	
	Estimates	t-values	Estimates	t-values	$\chi^2$	Probability
PI1 → intend to buy	.92	fixed	.91	fixed	--	fixed
PI1 → consider buying	.93	45.95	.94	45.95	.41	.52
PI1 → expect to buy	.95	48.24	.95	48.24	.83	.36
PI1 → plan to buy	.94	47.54	.95	47.54	.15	.69
PI2 → intend to buy	.89	fixed	.90	fixed	--	fixed
PI2 → consider buying	.89	38.57	.90	38.57	.10	.76
PI2 → expect to buy	.94	44.24	.95	44.24	.08	.77
PI2 → plan to buy	.92	41.61	.93	41.61	.25	.62
Cad1 ↔ AFFad1	.66	14.20	.66	14.20	.01	.92
Cad2 ↔ AFFad2	.63	13.48	.62	13.48	.21	.65
Cad1 → Aad1	.31	8.19	.30	8.19	.24	.62
AFFad1 → Aad1	.57	13.38	.55	13.38	.03	.86
Cad2 → Aad1	-.09	-2.69	-.09	-2.69	4.20	.27
AFFad2 → Aad1	.04	.98	.03	.98	.26	.61
Aad1 → Cb1	.60	13.49	.59	13.49	.23	.63
Aad2 → Cb1	-.05	-1.25	-.04	-1.25	4.41	<b>.04</b>
Aad1 → Ab1	.30	6.98	.31	6.98	.01	.92
Cb1 → Ab1	.46	9.15	.48	9.15	.25	.62
Aad2 → Ab1	-.07	-1.74	-.07	-1.74	1.81	.18
Cb2 → Ab1	-.08	-1.75	-.07	-1.75	1.41	.23
Cb1 → CONb1	.41	8.81	.41	8.81	.79	.37
Cb2 → CONb1	-.07	-1.83	-.07	-1.83	.01	.92
Ab1 → PI1	.50	11.92	.49	11.92	.31	.58
CONb1 → PI1	.33	11.85	.34	11.85	.59	.44
Ab2 → PI1	-.11	-3.66	-.11	-3.66	.02	.88
CONb2 → PI1	-.17	-6.44	-.18	-6.44	.37	.55
Cad1 → Aad2	-.08	-2.17	-.08	-2.17	.14	.71
AFFad1 → Aad2	.05	1.19	.05	1.19	.35	.55
Cad2 → Aad2	.20	5.58	.21	5.58	.01	.92
AFFad2 → Aad2	.64	14.29	.59	14.29	.87	.35
Aad1 → Cb2	-.02	-.57	-.02	-.57	.90	.34
Aad2 → Cb2	.57	13.6	.57	13.6	.60	.44
Aad1 → Ab2	-.31	-7.19	-.32	-7.19	1.18	.28
Cb1 → Ab2	.05	.97	.04	.97	.71	.40
Aad2 → Ab2	.23	5.39	.23	5.39	.17	.69
Cb2 → Ab2	.49	9.57	.49	9.57	.16	.69

**Table 5.11: Comparison of the Extended Competitive Vulnerability Model across North American and Chinese**

Paths	N. A. Subjects N=321		Chinese Subjects N=462		LM Test for Releasing Constraints	
	Estimates	t-values	Estimates	t-values	$\chi^2$	Probability
Cb1 → CONb2	-.14	-3.69	-.14	-3.69	.20	.66
Cb2 → CONb2	.50	10.69	.47	10.69	.01	.92
Ab1 → PI2	-.11	-3.47	-.10	-3.47	.01	.92
CONb1 → PI2	-.13	-4.46	-.12	-4.46	.21	.65
Ab2 → PI2	.44	12.70	.43	12.70	.23	.63
CONb2 → PI2	.39	12.59	.39	12.59	.01	.92



## 5.2.4 Summary

The findings of the three-step structural equation modeling analyses show that consumer brand choice process is invariant across North American and Chinese consumers. I first tested the extended competitive vulnerability model for North American and Chinese subjects, respectively. The results indicate that the proposed model has an excellent fit for the two groups. The higher level of cognitive responses of a focal ad significantly leads to a higher evaluation of that ad. However, the higher level of cognitive responses of the competing ads significantly leads to a lower evaluation of the focal ad. Similar results were also obtained for AFFad. In addition, my results not only confirmed the dual mediation model that in addition to a direct effect, Cad also has an indirect influence on Ab through Cb, but also included the competing ads and competing brands. The results provide strong evidence that the effects of the competing ads and competing brands on a focal ad and focal brand are negative. Specifically, my findings showed that the higher level of confidence in evaluating a focal brand leads to increase intentions to buy that brand, which in turn, increases higher probability of selecting that brand. However, the higher level of confidence in evaluating the competing brands leads to decrease intentions to buy the focal brand, and finally decrease the probability of choosing the same brand.

Further, I examined the measurement items and structural relations of the proposed model and found them to be invariant across North American and Chinese consumers. The results provide evidence that the seven factors (Cad, AFFad, Aad, Cb, Ab, CONb and PI) that form consumer brand choice process operate in a similar in both North American and Chinese consumers.

# Chapter Six

## Conclusions, Implications and Future Research

### 6.1 Theoretical Implications

Through experiment 1 and experiment 2, this study aims to contribute to the literature on cross-cultural, advertising and consumer behavior. Firstly, it focuses on a research gap that has not received attention in the literature, namely cultural effects on consumer brand choice behavior in a competitive advertising situation. Specifically, it emphasizes the interactions of competition and culture, such as the interaction effects of culture-laden advertising appeals, argument strengths and culture-laden pictures on consumer attitudes and purchase behaviors in an environment of competition illustrating how culture may influence consumer brand choice behaviors. For example, when consumers form their attitudes toward a brand in an ad, the objective characteristics and attributes of the particular brand are not the only factor that impacts their attitudes. Consumers' cultural beliefs and values may also have significant influences on the formation of their attitudes toward that brand. In particular, consumers are more likely to favor the brand in an ad when the cultural meanings expressed by the ad are consistent with their cultural beliefs and values. However, if the consistency does not exist, the degree of purchase intention toward that brand may decrease. The consumers may have

more positive purchase intents toward another brand whose ad features more competitive cultural meaning. Therefore, this research not only improves the understanding of cultural effects, but also uncovers culture and competition interaction effects on consumer brand choice behaviors.

Secondly, this research integrates two models and offers an extended competitive vulnerability model, suggesting the effects of ad cognitions and affects of competing ads on the formations of attitude toward ad, brand cognitions, attitude toward brand, confidence in evaluating brand, and purchase intention vis-à-vis a focal ad. Although previous studies have investigated the influence of ad cognitions on consumer choice behavior, this study provides further insight into the competitive effects of ad cognitions and affects of one ad on another. Based on literature, MacKenzie, Lutz, and Belch (1986) developed a dual mediation model suggesting that in addition to a direct effect, A<sub>ad</sub> also has an indirect influence on A<sub>b</sub> through C<sub>b</sub>, whereas C<sub>ad</sub> indirectly impacts A<sub>b</sub> through A<sub>ad</sub>. As well, A<sub>b</sub> affects PI. Although the dual mediation model addresses the links among these variables, it fails to incorporate them in the models predicting consumer choice behavior in competitive environments (Laroche 2002). Evidence indicates that there are competitive relationships among C<sub>b</sub>, A<sub>b</sub>, and PI in consumers' choice processes (Laroche, 2002; Laroche, Hui, and Zhou, 1994; Laroche and Teng, 2001). Particularly, Laroche recently put forward the idea that "competitive effects are present at all stages in the consumer decision process" (2002, p. 15). Drawing on this insight, this study incorporates competition in the dual mediation model.

Although Laroche et al have pointed out that cognitive evaluations of competing brands significantly influence consumers' attitude and intention formations toward a

focal brand within the choice set (Laroche, Hui and Zhou 1994; Laroche, Kim and Zhou 1995 & 1996; Laroche and Sadokierski 1994; Laroche and Teng 2001), they do not pinpoint the specific informative variables that may impact consumer choice behaviors. For example, the manner in which ad information of a focal ad and competing ads influence consumers' attitude and purchase intent is unknown in the competitive vulnerability model (Laroche and Brisoux 1989; Laroche, Hui and Zhou 1994; Laroche, Kim and Zhou 1995 & 1996; Laroche and Sadokierski 1994; Laroche and Teng 2001). More recently, Laroche (2002) attempted to relate the competitive vulnerability model to the dual mediation model, but no empirical test was conducted. By integrating the dual mediation model and the competitive vulnerability model, this study offers a comprehensive understanding of the competitive effects of competing ads and brands on a focal ad and brand.

Thirdly, this research extends the framework to a multicultural setting to look at the generalizations of the proposed consumer brand choice model across North American and Chinese consumers. Bagozzi (1994) stressed that the area for future growth is “the exploration of cross-cultural dynamics.....Cross-cultural research is possible for researchers from all points of view: information processing, human judgment and choice, attitude theory, and so on” (p.3). This study does agree with these points. Although culture is viewed as a significant variable in buyer behavior (Engel, Blackwell, and Miniard 1989), there is still relatively little theoretical and empirical work that has been done in a cross-cultural advertising context (Zhang and Gelb 1996). Moreover, a study to compare the consumer brand choice behaviors across cultures is relatively new to advertising research. It should be of interest to marketing academics because of the need

to test the universality of theories developed in North America. This study fills the void in the literature by addressing the associations between Cad, AFFad, Aad, Cb, Ab, CONb and PI across North American and Chinese cultures. In other words, this research attempts to extend the framework to a multicultural setting by comparing the reactions of North American and Chinese consumers to advertising, and determines whether the proposed consumer brand choice model which incorporates those factors differs substantially across cultures.

Finally, this study contributes to marketing research methodology. The market in China is becoming more and more attractive for the rest of the world, not only for North American companies in particular, but also for academic researchers. The shortage of advertising information about this market requires much research. This study provides a way to document the brand choice process of Chinese consumers and contrast it with that of North American consumers. It helps identify how differences between cultures in advertising may affect consumer purchase intentions and choice within consumer brand choice processes. This study may be applicable to other individualistic cultures such as Australia or to other collectivistic groups such as India and Japan.

Overall, from the perspectives of cross-cultural, advertising and consumer behavior, this study adds to a growing interest in consumer research on the interaction effects of culture-laden advertising appeals, ad content arguments, and culture-laden pictures on consumer attitudes and purchase behavior in a competitive environment for both North American and Chinese consumers. Moreover, for researchers interested in understanding the effects of advertising on consumer purchase behavior (Brown and Stayman 1992; Garder 1985; MacKenzie and Lutz 1989; MacKenzie, Lutz, and Belch

1986), this study extends the dual mediation model by taking into account the competitive effects of one ad on another. To researchers interested in consumer brand choice behavior (Laroche and Brisoux 1989; Laroche, Kim and Zhou 1996; Laroche and Sadokierski 1994; Laroche and Teng 2001), the study relates the competitive vulnerability model to the advertising field. The extended competitive vulnerability model provides a theoretical framework for examining competitive effects of advertising on consumer brand choice process. It increases my understanding of the competitive effects of advertising by demonstrating the relationships among Cad, AFFad, Aad, Cb, Ab, CONb and PI.

## 6.2 Managerial Implications

Based on this study, what marketing strategies might be useful for marketers and advertisers? Several valuable implications are suggested as follows: matching advertising to culture is important for international marketers and advertisers, especially in the case of sharply contrasting cultures, such as individualistic and collectivistic cultures (Zhang and Gelb 1996). Marketers should reply on a more specialized approach when communicating with consumers in a foreign market. Culture influences the concerns of advertising and consumer brand choice process. As well, cross-cultural comparisons contribute to a richer understanding of contextual influences on consumer choice behaviors. For example, this study shows that ad content, including appeal, argument strength and picture, is important in a cultural context, as it can change consumer attitudes and purchase behaviors. Thus, marketers should take the variables of ad content into account in their advertising.

Knowing what influence cultural groups on evaluating advertising is especially important for marketers who wish to implement global strategies, specifically for the companies who want to pursue further development in the Chinese market. Chinese are fickle about purchase when their level of brand awareness is not high. Therefore, marketers have to keep marketing and making consumers aware of their brands as much as possible. In China, advertising significantly influences consumer purchase behavior. Advertising which concentrates on emotional and social appeals instead of objective product characteristics may have great effectiveness in the Chinese market. The favorite Chinese medium of information gathering is television. They purchase a significant number of their items through this medium. They also prefer reading newspapers in order to be informed. Generally speaking, the more brands the Chinese consumers see, the more the likelihood of increased trial purchases and brand switching. Therefore, marketers who are increasingly seeking enhanced opportunities for growth and profit in Chinese market have to understand and learn the Chinese culture, as well as employ appropriate social values in ad promotion strategies in order to increase their ad and brand cognitions. When their ad appeal matches Chinese consumers' cultural values, the strategy of employing a culturally aware ad appeal may bring more positive responses from these consumers in evaluating the ad and brand, and in turn, influence them to buy that brand. This strategy may be applicable to other markets such as Indian and Japanese markets and Australian market, where collectivistic and individualistic cultures contrast with each other. Therefore, for marketers who attempt to change consumers' attitudes and purchase intents, this study provides interesting solutions.

In addition, the analyses of interaction effects provide the opportunities that marketers can have in order to capture and understand unique differences between North American and Chinese consumers. The uniqueness is further revealed as an understanding of cultural values and their effects on consumers' attitudes and purchase behavior are uncovered. On the other hand, the invariance of the extended consumer brand choice model suggests that consumers follow the same brand choice process regardless of their cultural orientation. This gives marketers the freedom to play with ad cognition and ad affect variations, while being mindful of the local business environment.

Another important marketing implication is that a marketer should not only pay attention to her/his own ads and products, but also study competitors' ads and products, because competition exists. Ideally, an ad is usually designed to build certain mental associations with and beliefs about a brand in the ad, which may lead consumers to buy that brand, since the ad creates a more favorable A<sub>ad</sub> that enhances brand evaluations and purchase intents. In other words, advertising can bias brand evaluations by establishing conditions where consumers view the brand more favorably than they would otherwise. To affect consumers' evaluations of other competing brands, therefore, a marketer has to influence their perceived benefits of the competing brands. If her/his ad succeeds in creating a highly favorable A<sub>b</sub> (i.e., enhance the perceived utility of her/his brand relative to competing brands), it should decrease consumers' evaluations of those competing brands (i. e., reduce perceived benefits of the competing brands). Subsequently, the consumers' cognitions and attitudes toward, as well as confidence in evaluating the competing brand will be lower. As a result, they will choose the marketer's brand.



## 6.3 Limitations and Future Research

This study has several limitations that deserve attention in future research. For example, the neutral text was applied for the competing ad in Experiment 1. It limited the examination of interaction effects between argument strength and culture, appeal, as well as competition for the competing ad and brand. Similarly, the neutral picture was applied for the competing ad in Experiment 2. The interaction effects between picture and culture, appeal and competition for the competing ad and brand could not be examined. Future research is needed to take all factor variables into account for both a focal ad and competing ads at the same level in order to examine all interaction effects of the factorial design (i.e., weak versus strong arguments crossed with the focal ad and competing ad in Experiment 1; individualistic versus collectivistic laden-pictures for the two ads in Experiment 2).

In this research, only two items measured ad affect. Although there are three variables designed to measure it in the questionnaire, the results indicate the negative question was not related with positive questions well. Therefore, future research is needed to explore more questions in order to improve the measure of ad affect.

In addition, two hypothetical brands were considered in this study. Actually, consumers may face a few alternatives while making a brand choice decision (Lussier and Olshavsky 1979). Future research should replicate this study using more realistic product stimuli in order to generalize my findings. Specifically, future research on consumer brand choice processes may attempt to examine the proposed hypotheses using different product categories across North American and Chinese cultures. Expanding

research to a variety of product categories will also improve the generalizability of this study.

Similarly, this study covered only two cultures across North American and Chinese consumers. In order to generalize the cultural effects on the extended competitive vulnerability model, at least one more culture must be added to the study in order to achieve cultural triangulation.

Another area for future exploration is the effect of personality traits on how consumers make a brand choice. For instance, need for cognition is an important individual-level variable that measures the extent to which consumers willingly engage in processing information (Cacioppo and Petty 1982). It is conceivable that consumers with a high need for cognition are more likely to thoroughly process commercial information and use a more cognitive choice model with a larger consideration set than those with a low need for cognition. Particularly, need for cognition of consumers may greatly vary across cultures. Therefore, continued investigation is needed to shed some light on these relationships.

Finally, in addition to individualism and collectivism, Hofstede (1980 and 1994) also takes into consideration the factors of cultures placing more or less values on what he calls *power distance*, *uncertainty avoidance*, *masculinity/femininity*, as well as *long-term/short-term orientation*. The power distance refers to the level of tolerance that low power members exhibit for an unequal distribution of power between members. Uncertainty avoidance relates to the level of tolerance in which people feel threatened by an ambiguous situation. Masculinity/femininity contrasts cultures based on the extent to which dominant cultural values include success, money, assertiveness and materialism

versus relationships among people and quality of life. Long-term/short-term orientation refers to cultural traits such as thrift (saving) and perseverance. Therefore, future research to address advertising which varies on these dimensions across North American and Chinese consumers will be useful to understand the differences and similarities of consumer brand choice behaviors between the two groups (Zhang and Gelb 1996).

## 6.4 Conclusion

This study reports two experiments. Both experiments examined the interaction effects of culture, culture-laden advertising appeals, argument strengths, culture-laden advertising pictures and competition on consumer attitudes and purchase behaviors. By using the aggregate data from the two experiments, I tested the extended competitive vulnerability model, which linked the dual mediation model (Brown and Stayman 1992; Gardner 1985; MacKenzie and Lutz 1989; MacKenzie, Lutz, and Belch 1986) and the competitive vulnerability model (Laroche and Brisoux 1989; Laroche, Kim and Zhou 1995 and 1996; Laroche and Sadokierski 1994; Laroche and Teng 2001). In order to put the data for this work to its most effective use, both experiments were undertaken with consumers, or “real people,” and not from a student sample. Such verification increased confidence in the findings. ANOVAs and MANOVAs were applied to analyze the interaction effects and Structural Equation Modeling was applied to determine the model’s fit to responses from North American and Chinese consumers concerning attitudes and purchase intention of two digital cameras in a competitive environment.

The results of Experiment 1 indicate that North American consumers have more positive attitudes and purchase intents toward a brand in an ad containing an individualistic appeal, and strong arguments when competing ads contain collectivistic

appeals as compared to individualistic appeals. In contrast, Chinese consumers have more positive attitudes and purchase intents toward a brand in an ad containing a collectivistic appeal and strong arguments, especially when the competing ads contain individualistic appeals as compared to collectivistic appeals. Experiment 2 provides evidence that an ad containing an appropriate, individualistic visual element can increase North American consumers' attitudes and purchase intents while a collectivistic picture evokes positive Chinese consumers' attitudes and purchase intents. The findings from Structural Equation Modeling suggest that competing ads and competing brands negatively influence consumers' attitudes and purchase intents toward a focal brand in a focal ad. Multi-group analysis was also conducted to examine for invariance across North American and Chinese consumers. The measurement and structural model analyses of the multi-group show that there is invariance in both models except for one path. The path that is insignificant ( $t = -1.25$ ) for invariance is the competing ad attitude and the focal brand cognition in the focal ad. However, the lack of invariance was minimal. Overall, the extended vulnerability model presents a fairly robust model in describing consumer brand choice process.

Generally speaking, the question of how the multiple-ads and multiple-brands influence consumer attitudes and purchase behaviors in multicultural environments is really very new. This study is just a beginning into that area, and I hope that I have answered some of the issues that are crucial in today's marketing and advertising.

## References

- Abe, S., and M. Tanaka (1989), "Is Brand Evaluation Independent of Other Brands?" in *Advances in Consumer Research*, vol. 16, T. K. Srull, ed., Association for Consumer Research, Provo, UT. 1989, 439-442
- Ajzen, Icek (1993), "Attitude Theory and the Attitude-Behavior Relation," in *New Directions in Attitude Measurement*, Dagmar Krebs and Peter Schmidt, (eds.), Berlin, NY: Walter de Gruyter, 41-57
- Alba, Joseph W. and J. Wesley Hutchinson (1987), "Dimensions of Consumer Expertise," *Journal of Consumer Research*, 13 (March), 411-454
- Albers-Miller, Nancy D. and Betsy D. Gelb (1996), "Business Advertising Appeals as a Mirror of Cultural Dimensions: A Study of Eleven Countries," *Journal of Advertising*, 25 (2), 57- 71
- Al-Makaty, Safran S., G. Norman Van Tubergen, S. Scott Whitlow, and Douglas A. Boyd (1996), "Attitudes toward Advertising in Islam," *Journal of Advertising Research*, (May/June), 16-26
- Andrews, J. Graig, Steven Lysonski and Srinivas Durvasula (1991), "Understanding Cross-Cultural Student Perceptions of Advertising in General: Implications for Advertising Educators and Practitioners," *Journal of Advertising*, 20(2), 15-28
- Arens, William F. and Courtland L. Bovee (1994), *Contemporary Advertising*, 5<sup>th</sup> ed., Boston: Richard D. Irwin, G-2
- Bagozzi, Richard P. (1992), "The Self-Regulation of Attitudes, Intentions, and Behavior," *Social Psychology Quarterly* 55: 178-204
- Bagozzi, R. P. and Yi, Y. (1988), "On the Evaluation of Structural Equation Models," *Journal of the Academy of Marketing Science*, 16, 74-94
- Baumgartner, H. and Homburg, C. (1996), "Applications of Structural Equation Modeling in Marketing and Consumer Research: A Review," *International Journal of Research in Marketing*, 13, 139-161
- Beatty, Sharon E. and Scott M. Smith (1987), "External Search Effort: An Investigation Across Several Product Categories," *Journal of Consumer Research*, 14 (June), 83-95
- Bennett, P. D. and G. D. Harrel (1975), "The Role of Confidence in Understanding and Predicting Buyers' Attitudes and Purchase Intention," *Journal of Consumer Research* 2:110-117

- Berkman, Harold W. and Christopher Gilson (1987), *Advertising: Concepts and Strategy*, 2<sup>nd</sup> ed. New York: Random House
- Bettman, James R. (1981), "A Functional Analysis of the Role of Overall Evaluation of Alternatives in Choice Processes," in *Advances in Consumer Research* Volume 9, Andrew Mitchell ed., All Arbor, MI: Association for Consumer Research, 87-93
- Bettman, James R. (1979), *An Information Processing Theory of Consumer Choice*, Addison Wesley Pub. Co.
- Biehal, Gabriel, Debra Stephens and Eleonora Curlo (1992), "Attitude toward the Ad and Brand Choice," *Journal of Advertising*, XXI (3), 19-36
- Bond, Michael Harris (1991), *Beyond the Chinese Face: Insights from Psychology*, Hong Kong: Oxford University Press
- Brown, Steven P. and Douglas M. Stayman (1992), "Antecedents and Consequences of Attitude toward the Ad: A Meta-analysis," *Journal of Consumer Research*, 19 (June), 34-51
- Brucks, Merrie (1985), "The Efforts of Product Class Knowledge on Information Search Behavior," *Journal of Consumer Research*, 12 (June), 1-16
- Burke, Marian C. and Julie A. Edell (1989), "The Impact of Feelings on Ad-Based Affect and Cognition," *Journal of Marketing Research*, 26 February, 69-83
- Burton, Scot and Donald R. Lichtenstein (1988), "The Effects of Ad Claims and Ad Context on Attitude Toward the Advertisement," *Journal of Advertising*, 17 (1), 3-11
- Cacioppo, John T. and Richard E. Petty (1982), "The Need for Cognition," *Journal of Personality and Social Psychology*, 42 (January), 116-131
- Cheng, Hong (1994), "Reflections of Cultural Values: A Content Analysis of Chinese Magazine Ads from 82-92," *International of Journal of Advertising*, 13 (Spring), 167-173
- Childers, Terry L. and Michael J. Houston (1984), "Conditions for a Picture-Superiority Effect on Consumer Memory," *Journal of Consumer Research*, 15 (September), 643-654
- Chiu, C. Y., S. C. Tsang and C. F. Yang (1988), "The Role of Face Situation and Attitudinal Antecedents in Chinese Consumer Complaint Behavior," *Journal of Social Psychology*, 128 (2), 173-180
- Coulter, Keith S. and Girish Punj (1999), "Influence of Viewing Context on the Determinants of Attitude toward the Ad and the Brand," *Journal of Business Research* 45, 47-58

- Cox, Dena S. and William B. Locander (1987), "Product Novelty: Does It Moderate the Relationship between Ad Attitudes and Brand Attitudes?" *Journal of Advertising*, 16 (3), 39-44
- Dabholkar, P. A. (1994), "Incorporating Choice into an Attitudinal Framework: Analyzing Models of Mental Comparison Processes," *Journal of Consumer Research* 21, 100-118
- Dickson, Peter R., Robert E. Burnkrant, Paul E. Miniard, and Hanumantha R. Unnava (1986), "If It Isn't a Duck Then Why Did It Quack? Competing Explanations for an Observed Effect of Illustrations in an Advertisement," in *Advances in Consumer Research*, Vol. 13, Richard J. Lutz, ed., Provo, UT: Association for Consumer Research, 153-157
- Edell, Julie A. and Marian Chapman Burke (1987), "The Power of Feelings in Understanding Advertising Effects," *Journal of Consumer Research* 14, 421-433
- Edell, Julie A. and Richard Staelin (1983), "The Information Processing of Pictures in Print Advertisements," *Journal of Consumer Research*, 10 (1), 45-61
- Engel, J. F., R. D. Blackwell and P. W. Miniard (1995), *Consumer Behavior* (5<sup>th</sup> ed.), The Dryden Press
- Engel, J. F., R. D. Blackwell and P. W. Miniard (1993), *Consumer Behavior* (7<sup>th</sup> ed.), Fort Worth: The Dryden Press
- Fazio, Russell H. (1986), "How Do Attitudes Guide Behavior?" in *The Handbook of Motivation and Cognition: Foundations of Social Behavior*, R. M. Sorrentino and E. T. Higgins, eds., New York: Guilford Press, 204-243
- Fishbein, Martin and Icek Ajzen (1980), "Predicting and Understanding Consumer Behavior: Attitude-Behavior Correspondence," in *Understanding Attitudes and Predicting Social Behavior*, ed., Icek Ajzen and Martin Fishbein, Englewood Cliffs, NJ: Prentice-Hall, 148-172
- Fishbein, Martin and Icek Ajzen (1975), *Beliefs, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading MA
- Gardner, Meryl P. (1985), "Does Attitude toward the Ad Affect Brand Attitude under a Brand Evaluation Set?" *Journal of Consumer Research*, 10 (June), 45-61
- Gardner, Meryl P. (1985), "Mood States and Consumer Behavior: A Critical Review," *Journal of Consumer Research*, 281-300
- Gardner, Meryl P., Andrew A. Mitchell and J. Edward Russo (1985), "Low Involvement Strategies for Processing Advertisements" *Journal of Advertising*, 14 (2), 4-56

- Greenwald, Anthony G. and Clark Leavitt (1984), "Attitude Involvement in Advertising: Four Levels," *Journal of Consumer Research*, 11, 581-592
- Goldberg, Marvin E. and Gerald J Gorn (1987), "Happy and Sad TV Programs: How They Affect Reactions to Commercials," *Journal of Consumer Research* 14, 387-403
- Gudykunst, William B. (1997), "Cultural Variability in Communication," *Communication Research*, 24 (4), 327-348
- Hastak, Manoj and Jerry C. Olson (1989), "Assessing the Role of Brand-Related Cognitive Responses as Mediators of Communication Effects on Cognitive Structure," *Journal of Consumer Research*, 15 (March), 444-56
- Hirsch, E. D., Joseph F. Kett and James Trefil (1988), *The Dictionary of Cultural Literacy*, Boston: Houghton Mifflin Company
- Hoch, Stephen J. and Young-Won Ha (1986), "Consumer Learning: Advertising and Ambiguity of Product Experience," *Journal of Consumer Research*, 13 (September), 221-232
- Hofstede, Geert (1994), "The Business of International Business is Culture," *International Business Review*, 3 (1), 1-14
- Hofstede, Geert (1980), "Motivation, Leadership and Organization: Do American Theories Apply Abroad?" *Organization Dynamics*, 9(1), 42-63
- Holbrook, Morris B. and Rajeev Batra (1986), "Assessing the Role of Emotions as Mediators of Consumer Responses to Advertising," *Research Working Paper No. 86-AV-10*, Columbia University
- Homer, Pamela M. (1990), "The Mediating Role of Attitude Toward the Ad: Some Additional Evidence," *Journal of Marketing Research*, 27 (February), 78-86
- Homer, Pamela M. and Sun-Gil Yoon (1992), "Message Framing and the Interrelationships among Ad-Based Feelings, Affect and Cognition," *Journal of Advertising*, Volume XXI, Number 1 (March), 19-33
- Howard, J. A. (1989), *Consumer Behavior in Marketing Strategy*, Prentice Hall, Englewood Cliffs, NJ
- Hsu, F. L. K. (1981), *American and Chinese: Passage to Differences*, 3<sup>rd</sup>., Honolulu: University of Hawaii Press
- Hui, C. H. (1988), "Measurement of Individualism-Collectivism," *Journal of Research in Personality*, Vol. 22, 17-36



- Hui, M. K., M. Laroche, C. Kim and A. Joy (1993), "Equivalence of Lifestyle Dimensions Across Four Major Subcultures in Canada," *Journal of International Consumer Marketing*, 5(3), 15-35
- Hui, C. H. and H. C. Triandis (1986), "Individualism-Collectivism: A Study of Cross-Cultural Researchers," *Journal of Cross-Cultural Psychology*, 17, 225-248
- Johnson, Eric and Edward J. Russo (1984), "Product Familiarity and Learning New Information," *Journal of Consumer Research*, 11 (June), 542-550
- Kagitcibasi, C. and J. W. Berry (1989), "Cross-Cultural Psychology: Current Research and Trends," *Annual Review of Psychology*, 40, 493-531
- Keller, Kevin Lane (1991), "Cue Compatibility and Framing in Advertising," *Journal of Marketing Research*, 28 (February), 42-57
- Khairullah, Durriya (1995), "Acculturation and Its Relation to Asian-Indian Immigrants' Perceptions of Advertisements," *Journal of Applied Business Research*, 11 (2), 55-64
- Kindra, G. S., M. Laroche and T.E. Muller (1994), *Consumer Behavior, The Canadian Perspective* (2<sup>nd</sup> ed.). Toronto, ON: Nelson
- Kluckhohn, Clyde and William Kelly (1945), "The Concept of Culture," *The Science of Man in World Crisis*, ed. Ralph Linton, New York: Columbia University Press
- Laroche, Michel (2002). Selected issues in modeling consumer brand choice: The extended competitive vulnerability model. In A. G. Woodside & E. Moore (Eds.), *Essays by Distinguished Marketing Scholars of the Society for Marketing Advances*, vol. 11, pages 69-114, Elsevier Science Ltd.
- Laroche, M., Michel J. Bergier and K. Lee McGown (1980), "Attitudes, Intentions and the Effects of Competition," in Marketing, Vol. 1, *Toward Excellence in the Eighties*, Vernon J. Jones, ed., Montreal: Administrative Science Association of Canada, 222-229
- Laroche, M., and J. E. Brisoux (1989), "Incorporating Competition into Consumer Behavior Models: The Case of the Attitude-Intention Relationship," *Journal of Economic Psychology* 10: 343-362
- Laroche, M. and Jacques E. Brisoux (1981), "A Test of Competitive Effects in the Relationship Among Attitudes and Intentions," in *The Changing Marketing Environment, New Theories and Applications*, Kenneth Bernhart et al, ed., Chicago, IL: American Marketing Association, 213-216
- Laroche, M., M. Hui and Lianxi Zhou (1994), "A Test of the Effects of Competition on Consumer Brand Selection Processes," *Journal of Business Research* 31: 171-181

- Laroche, M., Chankon Kim and Lianxi Zhou (1996), "Brand Familiarity and Confidence as Determinants of Purchase Intention: An Empirical Test in a Multiple Brand Context," *Journal of Business Research* 37: 115-120
- Laroche, M., Chankon Kim and Lianxi Zhou (1995), "Direct and Indirect Effects of Confidence on Purchase Intention," *Advances in Consumer Research* 22: 333-339
- Laroche, M. and R. W. Sadokierski (1994), "Role of Confidence in a Multi-brand Model of Intentions for a High Involvement Service," *Journal of Business Research* 29:1-12
- Laroche, M., I. Takahashi, M. Kalamas & L. Teng, (2003 forthcoming), "Modeling the Selection of Fast-Food Franchises among Japanese Consumers," *Journal of Business Research*.
- Laroche, M. and Teng, L. (2001), "A Test of the Laroche Competitive Vulnerability Model of Cognitions, Attitudes, Intentions, and Behavior: An Application to Fast Food Outlets," *Kansai University Bulletin (Japan)*, Vol. 32, No. 3, 1-19.
- Laroche, Michel, Lefa Teng and Maria Kalamas (2000), "Consumer Evaluation of Net Utility: Effects of Competition on Consumer Brand Selection Processes," unpublished paper, Concordia University
- LaTour, M. S. and T. L. Henthorne (1990), "The PRC: An Empirical Analysis of Country of Origin Product Perceptions," *Journal of International Consumer Marketing*, 2(4), 7-36
- Lee, Chol and Robert T. Green (1991), "Cross-cultural Examination of the Fishbein Behavioral Intentions model," *Journal of International Business Studies*, 22 (2), 289-305
- Lenormand, J. M. (1964), "Is Europe Ripe for the Integration of Advertising," *The International Advertiser*, 5, 14-25
- Li, L. (1996), "China's Economic Reform and Opening," *Beijing Review*, January (8-14), 15-17
- Lin, Carolyn A. (2001), "Cultural Values Reflected in Chinese and American Television Advertising," *Journal of Advertising*, 30 (4), 83-94
- Lockett, Martin (1988), "Culture and the Problems of Chinese Management," *Organization Studies*, 9(4): 475-496
- Lutz, Richard J. (1985), "Affective and Cognitive Antecedents of Attitude toward the Ad: A Conceptual Framework," in *Psychological Processes and Advertising Effects*, eds. Linda Alwitt and Andrew Mitchell, Hillsdale, NJ: Lawrence J. Erlbaum, 45-65

- Lutz, Richard J., Scott B. MacKenzie and George E. Belch (1983), "Attitude toward the Ad as a Mediator of Advertising Effectiveness: Determinants and Consequences," in *Advances in Consumer Research*, Richard P. Bagozzi and Alice M. Tybout, ed., Ann Arbor: Association for Consumer Research, 532-539
- MacInnis, Deborah J. and Bernard J. Jaworski (1989), "Information Processing from Advertisements: Toward an Integrative Framework," *Journal of Marketing*, 53 (October), 1-23
- MacInnis, Deborah J., Christine Moorman and Bernard J. Jaworski (1991), "Enhancing and Measuring Consumers' Motivation, Opportunity, and Ability to Process Brand Information from Ads," *Journal of Marketing*, 55 (October), 32-53
- MacKenzie, Scott B. and Richard J. Lutz (1989), "An Empirical Examination of the Structural Antecedents of Attitude toward the Ad in an Advertising Pre-testing Context," *Journal of Marketing*, 53 (April), 48-65
- MacKenzie, Scott B., Richard J. Lutz and George E. Belch (1986), "The Role of Attitude toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations," *Journal of Marketing Research*, 23 (May), 130-143
- Markus, H. R. and Kitayama, S. (1991), "Culture and the Self: Implications for Cognition, Emotion, and Motivation," *Psychological Review*, Vol. 98 (2), 224-253
- McCracken, G. (1990), "Culture and Consumer Behavior: An Anthropological Perspective," *Journal of the Market Research Society*, 32 (1), 3-11
- Mathur, A. (1998), "Incorporating Choice into an Attitudinal Framework: Cross-Cultural Extension and Additional Findings," *Journal of International Consumer Marketing* 10: 93-110
- McDonald, W. J. (1995), "American versus Japanese Consumer Decision Making: An Exploratory Cross-cultural Content Analysis," *Journal of International Consumer Marketing*, 7(3), 81-93
- Meyer, Robert J. (1982), "A Descriptive Model of Consumer Information Search Behavior," *Marketing Science*, 7 (winter), 93-121
- Mick, David Glen (1992), "Levels of Subjective Comprehension in Advertising Processing and Their Relations to Ad Perceptions, Attitudes, and Memory," *Journal of Consumer Research*, 18 (March), 519-529
- Miniard, Paul W., Sunil Bhatla, Kenneth R. Lord, Peter R. Dickson, and H. Rao Unnava (1991), "Picture-based Persuasion Processes and the Moderating Role of Involvement," *Journal of Consumer Research*, Vol. 18, 92-107

- Miniard, Paul W., Sunil Bhatla and Randall L. Rose (1990), "On the Formation and Relationship of Ad and Brand Attitudes: An Experimental and Causal Analysis," *Journal of Marketing Research*, 27 (August), 290-303
- Mitchell, Andrew A. (1986), "The Effect of Verbal and Visual Components of Advertisements on Brand Attitudes and Attitude toward the Advertisement," *Journal of Consumer Research*, 13 (1), 12-24
- Mitchell, Andrew A. (1983), "Cognitive Processes Initiated by Exposure to Advertising," in *Information Processing Research in Advertising*, Richard Jackson Harris, ed., Hillsdale, NJ: Lawrence Erlbaum Associates, 13-42
- Mitchell, Andrew A. (1981), "The Dimensions of Consumer Involvement," in *Advances in Consumer Research*, Vol. 8, 25-30
- Mitchell, Andrew A. (1980), "The Use of an Information Processing Approach to Understanding Effects," in *Advances in Consumer Research*, 171-177
- Mitchell, Andrew A. and Jerry C. Olson (1981), "Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude?" *Journal of Marketing Research*, 19 (August), 318-32
- Mittal, Banwari (1990), "The Relative Roles of Brand Beliefs and Attitude toward the Ad as Mediators of Brand Attitude: A Second Look," *Journal of Marketing Research*, 27 (May), 209-219
- Moorman, Christine (1990), "The Effects of Stimulus and Consumer Characteristics on the Utilization of Nutrition Information," *Journal of Consumer Research*, 17 (December), 362-374
- Muehling, Darrel D. (1987), "Comparative Advertising: The Influence of Attitude-Toward-the-Ad on Brand Evaluation," *Journal of Advertising*, 16 (4), 43-49
- Muehling, Darrel D. and Russell N. Laczniak (1988), "Advertising's Immediate and Delayed Influence on Brand Attitudes: Considerations Across Message Involvement Levels" *Journal of Advertising*, 17 (4), 23-34
- Mueller, Barbara (1987), "Reflections of Culture: An Analysis of Japanese and American Advertising Appeals," *Journal of Advertising Research*, 27, 51-59
- Netemeyer, R. G., Burton, S. and Lichtenstein, D. R. (1995), "Trait Aspects of Vanity: Measurement and Relevance to Consumer Behavior," *Journal of Consumer Research*, 21, 612-626
- O'Donohoe, Stephanie (1995), "Attitudes to Advertising: A Review of British and American Research," *International Journal of Advertising*, 14, 245-261

- Park, C. W. and P. Lessig (1981), "Familiarity and Its Impact on Consumer Decision Biases and Heuristics," *Journal of Consumer Research* 8, 223-230
- Petty, Richard E., Duane T. Wegener and Leandre R. Fabrigar (1997), "Attitudes and Attitude Change," *Annual Review of Psychology*, 48, 609-647
- Petty, Richard E. and John T. Cacioppo (1986), "The Elaboration Likelihood Model of Persuasion," in *advances in Experimental Social Psychology*, vol. 19, L. Berkowitz, ed., Academic Press, New York, 123-205
- Petty, Richard E., and John T. Cacioppo (1981), *Attitude and Persuasion: Classic and Contemporary Approaches*, Dubuque, IA: W. C. Brown.
- Pollay, Richard W. (1986), "The Distorted Mirror: Reflections on the Unintended Consequences of Advertising," *Journal of Marketing*, 50 (April), 18-36
- Pollay, Richard W. (1983), "Measuring the Cultural Values Manifest in Advertising," in *Current Issues and Research in Advertising*, eds., Leigh, James H. & Martin, Jr., Claude R., 71-92
- Pollay, Richard W. and Katherine Gallagher (1990), "Advertising and Cultural Values: Reflections in the Distorted Mirror," *International Journal of Advertising*, 9, 359-372
- Radford, Mark H. B., L. Mann, Y. Ohta and Y. Nakane (1991), "Differences Between Australian and Japanese Students in Reported Use of Decision Processes," *International Journal of Psychology*, 26 (1), 35-52
- Russell, J. Thomas and W. Ronald Lane (1993), *Kleppner's Advertising Procedure*, Englewood Cliffs, New Jersey: Prentice-Hall
- Schwartz, Shalom H. (1992), "Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries," in Mark Zanna, ed., *Advances in Experimental Social Psychology*, 25, New York: Academic Press, 1-65
- Shavitt, S., and T. C. Brock (1986), "Self-Relevant Responses in Commercial Persuasion: Field and Experimental Tests," *Advertising and Consumer Psychology*, Eds J. Olson and K. Sentis, Vol. 3, New York:
- Shavitt, Sharon, Pamela Lowrey and James Haefner (1998), "Public Attitudes Toward Advertising: More Favorable than You Might Think," *Journal of Advertising Research*, 38 (July/August), 7-22
- Shimp, Terence A. (1981), "Attitude Toward the Ad as a Mediator of Consumer Brand Choice," *Journal of Advertising*, 10 (2), 9-15

- Simonson, Itamar, Joel Huber and John Payne (1988), "The Relationship Between Prior Brand Knowledge and Information Acquisition Order," *Journal of Consumer Research*, 14 (March), 566-578
- Singh, Surendra N. and Gilbert A. Churchill (1987), "Arousal and Advertising Effectiveness," *Journal of Advertising*, 16(1), 4-10
- Singh, Paras Nath and Sophia Chang Huang (1962), "Some Socio-Cultural and Psychological Determinants of Advertising in India: A Comparative Study," *The Journal of Social Psychology*, 57, 113-121
- Snyder, C. R. (1992), "Product Scarcity by Need for Uniqueness Interaction: A Consumer Catch 22 Carousel?" *Basic and Applied Social Psychology*, 13 (1), 9-24
- Srikandath, Sivaram (1991), "Cultural Values Depicted in India Television Advertising," *Gazette: The International Journal for Mass Communication Studies*, 48, 165-176
- Stajkovic, Alexander D. and Fred Luthans (1997), "Business Ethics across Cultures: A Social Cognitive Model," *Journal of World Business*, 32 (Spring), 17-34
- Stoltman, Jeffery J., James W. Gentry and Kenneth A. Anglin (1991), "Shopping Choices: The Case of Mall Choice," in *Advances of Consumer Research*, Rebecca H. Hollman ed., Provo, Utah: Association for Consumer Research 18, 434-440
- Tse, David K., Russell W. Belk and Nan Zhou (1989), "Becoming a Consumer Society: A Longitudinal and Cross-cultural Content Analysis of Print Ads from Hong Kong, the People's Republic of China, and Taiwan," *Journal of Consumer Research*, 15 (March), 457-472
- Triandis, Harry C. (1995), *Individualism and Collectivism*, Westview Press, Boulder, Co.
- Urbany, J. E., P. R. Dickson and W. L. Wilkie (1989), "Buyer Uncertainty and Information Search," *Journal of Consumer Research* 16: 208-215
- Vinson, D. E., J. E. Scott and L. M. Lamont (1977), "The Role of Personal Values in Marketing and Consumer Behavior," *Journal of Marketing*, 41 (April), 44-50
- Wernerfelt, Birger (1996), "Efficient Marketing Communication: Helping the Customer Learn," *Journal of Marketing Research*, 33 (May), 239-246
- Woodside, Arch G. and James D. Clokey (1974), "Multi-Attribute/Multi-Brand Models," *Journal of Advertising Research*, 14 (5), 33-40
- Wright, G. N., and L. D. Phillips (1980), "Cultural Variation in Probabilistic Thinking: Alternative Ways of Dealing with Uncertainty," *International Journal of Psychology*, 15, 239-257

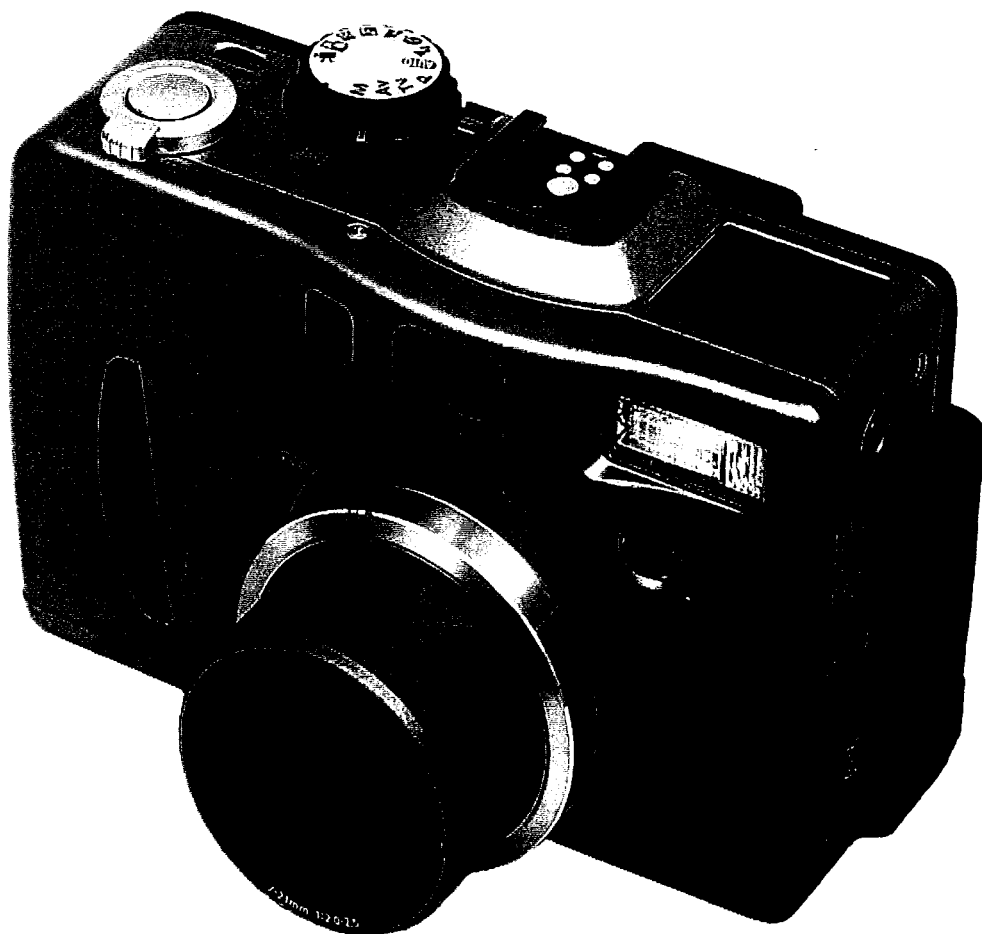
- Wright, Peter L. and Frederick Barbour (1975), "The Relevance of Decision Process Models in Structuring Persuasive Messages," *Communication Research*, 2 (July), 246-259
- Yates, J. F., Y. Zhu, D. L. Ronis, D. F. Wang, H. Shinotsuka and M. Tona (1989), "Probability Judgement Accuracy: China, Japan, and the United States," *Organizational Behavior and Human Decision Processes*, 43, 145-171
- Yi, Youjae (1990), "Cognitive and Affective Priming Effects of the Context for Print Advertisements," *Journal of Advertising*, 19 (2), 40-48
- Zajonc, Robert B. (1980), "Feeling and Thinking: Preferences Need No Inferences," *American Psychologist*, 35 (February), 151-175
- Zandpour, F., C. Chang and J. Catalano (1992), "Stories, Symbols and Straight Talk: A Comparative Analysis of French, Taiwanese, and U.S. Commercials," *Journal of Advertising Research*, 32 (1), 25-38
- Zanot, Eric J. (1984), "Public Attitudes toward Advertising: The American Experience," *International Journal of Advertising*, 3, 3-15
- Zhang, Yong and Betsy D. Gelb (1996), "Matching Advertising Appeals to Culture: The Influence of Products' Use Conditions," *Journal of Advertising*, 25 (3), 29-46
- Zinkhan, George M. and Claes Fornell (1989), "A Test of the Learning Hierarchy in High and Low Involvement Situations," in *Advances in Consumer Research* Volume 16, Thomas K. Srull ed., Provo, UT: Association for Consumer Research, 152-159

## APPENDIX A

### Advertisements Used for Experiment 1



# *Achieve Genuine Self-expression*



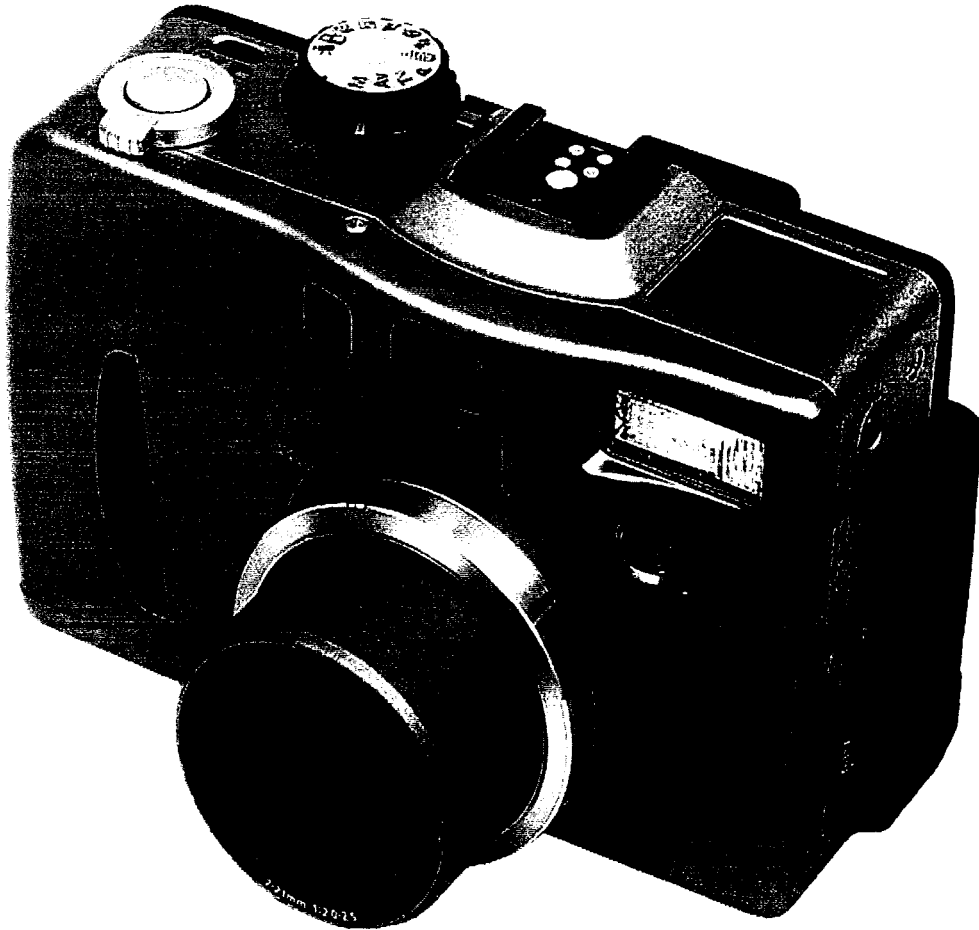
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—**A 4.3 megapixel CCD**

—**A 3x optical zoom**

—**Recording 80 seconds of video with sound**

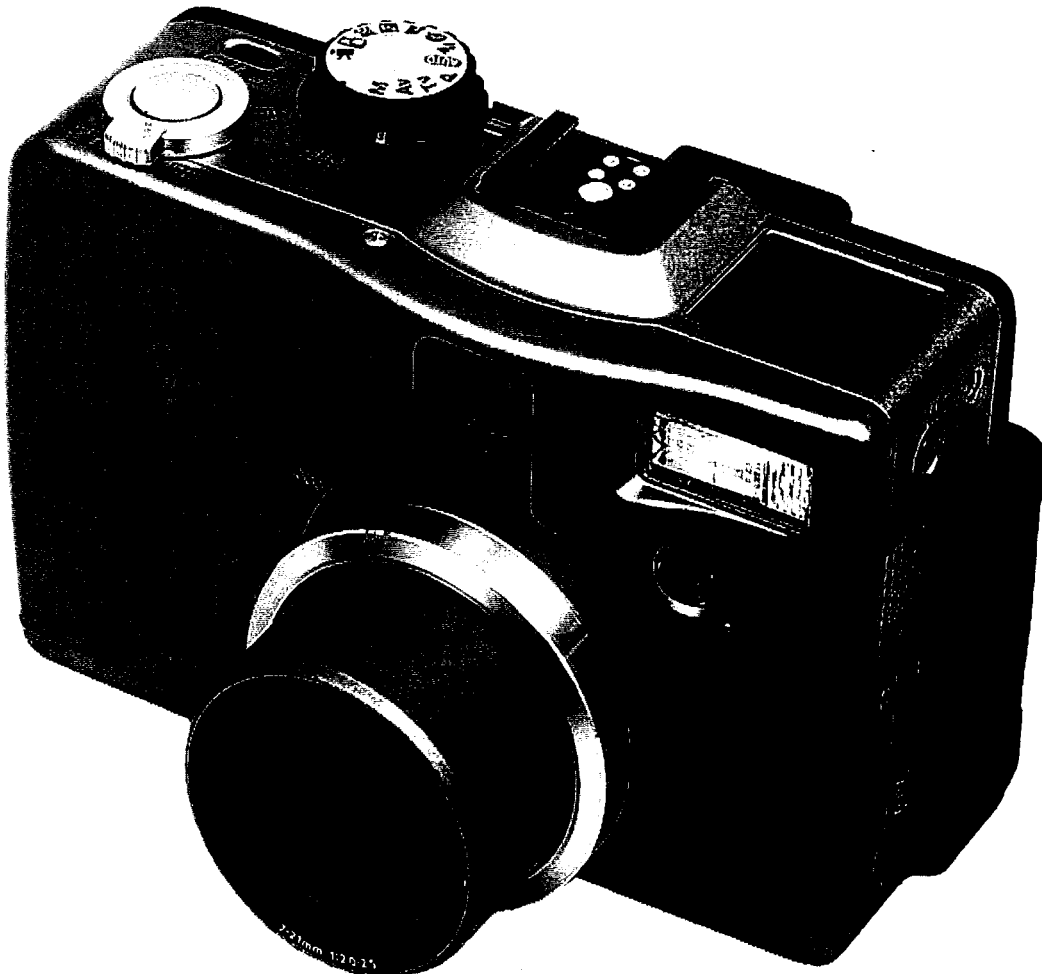
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**Canview offers you a new digital camera.  
Performance to match the imagination!  
Cutting-edge technology meant for everyone.**

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*Share the Joy with Those You Love*



**Sparkle announces a breakthrough new digital camera featuring flawless mechanical precision, amazingly quick handling and matchless optical quality. It easily earns the rank of exquisite for both style and performance. Unique in its class!**

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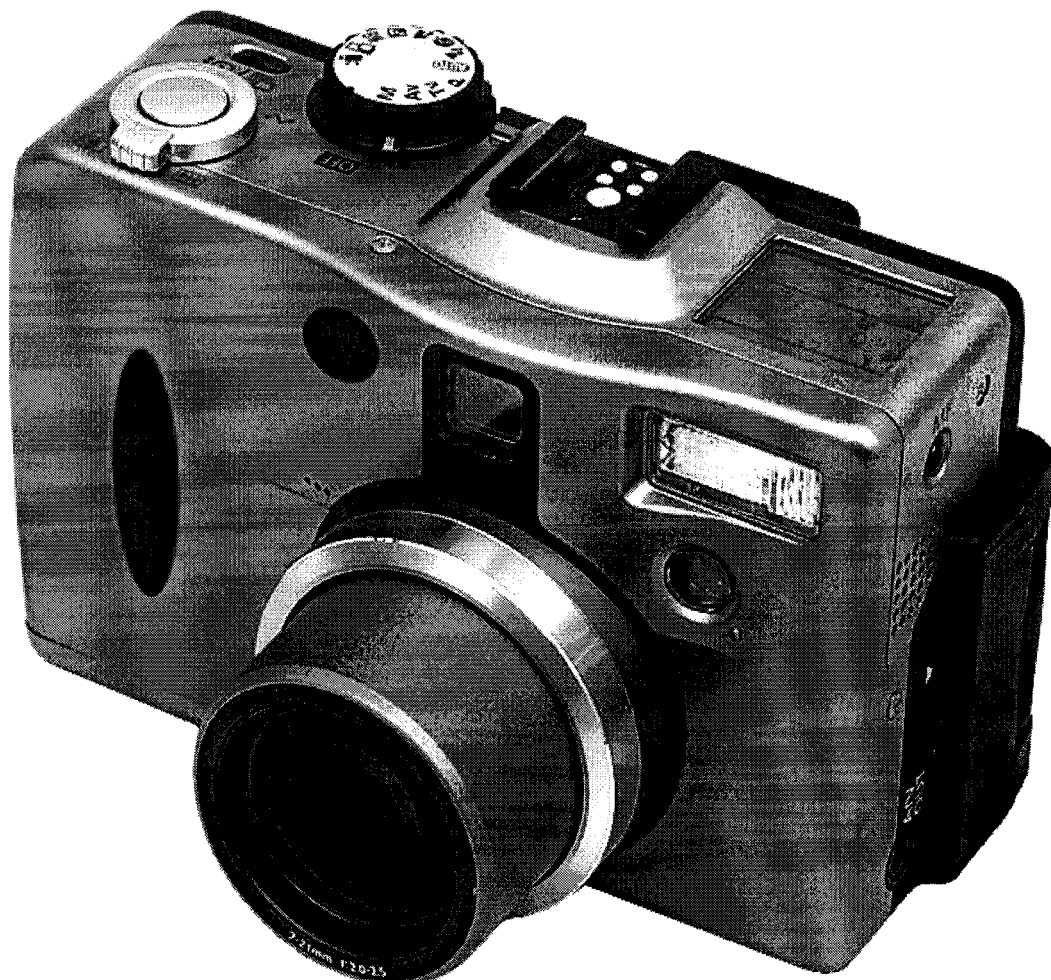


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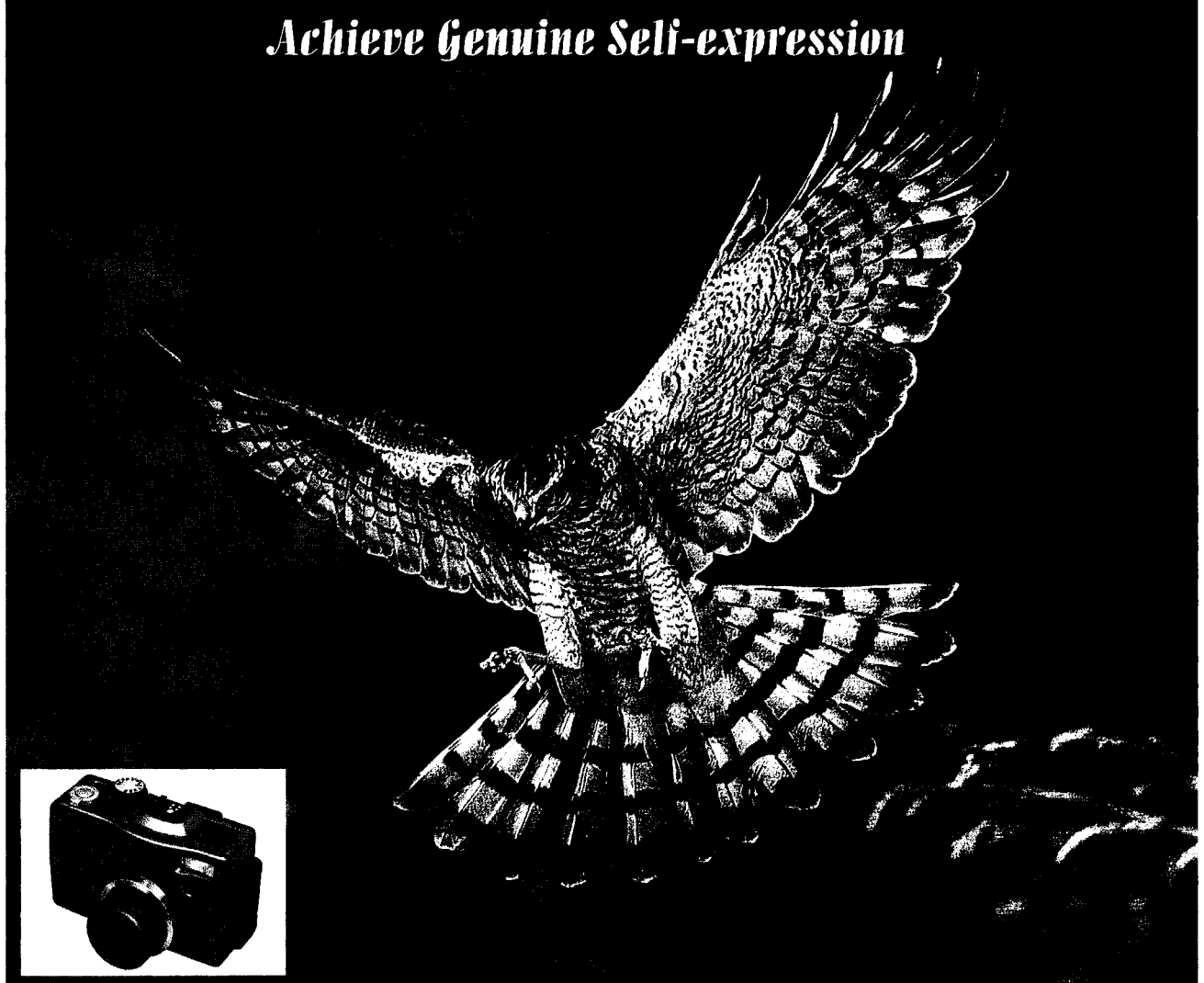
**Sparkle**新一代数码相机，机械结构精密，操作简单快捷，光学效果独特。*Sparkle*式样新颖，性能超群，是您毋庸置疑的最佳选择。

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## APPENDIX B

### Advertisements Used for Experiment 2

*Achieve Genuine Self-expression*

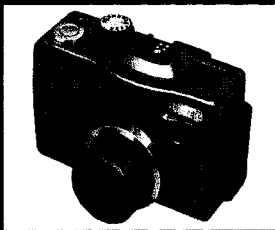


**Canview introduces a new digital camera for photographers. Its flawless mechanical precision, incredible speed, quick handling and incomparable optical quality represent an obsession with perfection that is unavailable anywhere else. Truly impressive!**

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*Achieve Genuine Self-expression*



**Canview introduces a new digital camera for photographers. Its flawless mechanical precision, incredible speed, quick handling and incomparable optical quality represent an obsession with perfection that is unavailable anywhere else. Truly impressive!**

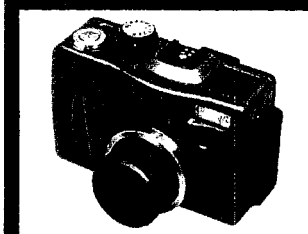
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**Sparkle announces a breakthrough new digital camera featuring flawless mechanical precision, amazingly quick handling and matchless optical quality. It easily earns the rank of exquisite for both style and performance. Unique in its class!**

To learn more about Sparkle, please visit [www.sparkle.com](http://www.sparkle.com)

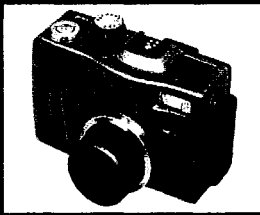
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## APPENDIX C

### Questionnaires Used for North American and Chinese Consumers

Questionnaire Number: \_\_\_\_\_

Dear Sir/Madam,

As part of the requirement of my Ph. D. in Administration Program at Concordia University, Montreal, Canada, I am interested in studying the opinions of North American consumers from various backgrounds on advertising.

I would very much appreciate your participation in this study by completing this questionnaire. This should take approximately 30 minutes of your time. Please note that your responses to this questionnaire will be kept confidential and will be used in academic research only at Concordia University. No one will know or use your name in this research at all.

Since this research is necessary for the successful completion of my Ph. D. program, I sincerely hope that you will agree to participate in this survey.

Thank you again for your kind participation, and I hope that you will enjoy the experience.

Yours truly,

Lefa Teng  
A.B.D. in Marketing  
Tel: (514) 848-2738

Dr. Michel Laroche, FRSC  
Supervising Professor  
Tel: (514) 848-2942

## How To Use This Booklet

This booklet and two manila envelopes have been provided for today's study. Please place the two envelopes on the top right-hand side of your table. The booklet contains a series of instructions which describe the various tasks you will perform. You will be asked some questions about each task.

Most of these questions simply ask you to circle one number on a scale that best reflects your agreement or disagreement with the statements. For example,

***1. I am always careful about my manner of dress.***

Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
1	2	3	4	5	⑥	7

Some of the questions simply ask you to circle the appropriate number that best reflects your personal reactions. For instance,

***2. The movie I have just viewed is***

Very bad	1	2	③	4	5	6	7	Very good
----------	---	---	---	---	---	---	---	-----------

The booklet also provides you with instructions regarding when to open and how to use the manila envelopes. ***Please do not open the manila envelopes until the experimenter asks you to do so.***

The first two parts of the study will be timed so it is important that you wait until instructed to do so before you begin. However, you will complete the remainder of the study at your own pace. You may take as much as little time as you need to complete it.

When you have completed a page ***please do not go back to previous pages*** to check or modify earlier responses. Also, please do not look at pages after the one you are currently working on. In other words, just go through the booklet one page at a time until the end.

The booklet and instructions have been designed to be as clear and easy to follow as possible. However, if at any time you feel unsure about what exactly you are being asked to do, or what a question means, please feel free to raise your hand and the experimenter will help you.

***Please do not turn this page until the experimenter tells you to do so!***



## Section 1

In this section, we would like to know your level of agreement or disagreement with the following statements that represent commonly held opinions. There are no right or wrong answers. Please indicate your choice by circling one number that best reflects the degrees of your opinion.

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
One of the pleasures of life is to be related interdependently with others.	1	2	3	4	5	6	7
I don't like to live close to my good friends.	1	2	3	4	5	6	7
I have a close relationship with my relatives and friends.	1	2	3	4	5	6	7
I would provide funds if a relative told me that s/he is in financial difficulty.	1	2	3	4	5	6	7
I feel strongly about returning favors to others.	1	2	3	4	5	6	7
It is not everyone's responsibility to respect the aged people.	1	2	3	4	5	6	7
I have a traditional relationship with my parent(s).	1	2	3	4	5	6	7
What happens to me is my own doing.	1	2	3	4	5	6	7
The most important thing in my life is to make myself happy.	1	2	3	4	5	6	7
When faced with a difficult personal problem, it is better to decide what to do myself, rather than to consult others.	1	2	3	4	5	6	7
One should not go to the extremes in his/her behavior.	1	2	3	4	5	6	7
To a great extent, my life is controlled by accidental happenings.	1	2	3	4	5	6	7
I feel powerful people mostly determine what happens in my life.	1	2	3	4	5	6	7
When I get what I want, it's usually because I'm lucky.	1	2	3	4	5	6	7
I can pretty much determine what will happen in my life.	1	2	3	4	5	6	7

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	1	2	3	4	5	6	7
When I get what I want, it's usually because I worked hard for it.	1	2	3	4	5	6	7
My life isn't determined by my own actions.	1	2	3	4	5	6	7
I strive as much as possible to be independent of others (materially or emotionally).	1	2	3	4	5	6	7
I live too much by other people's standards.	1	2	3	4	5	6	7
When I'm in a group, I usually don't say much for fear of saying the wrong thing.	1	2	3	4	5	6	7
I feel self-conscious when I'm with people who have a superior position to mine.	1	2	3	4	5	6	7
Showing affection openly is acceptable.	1	2	3	4	5	6	7
I always act properly in order to save embarrassment.	1	2	3	4	5	6	7
I only half-believe in myself.	1	2	3	4	5	6	7
I am quite shy and self-conscious in social situations.	1	2	3	4	5	6	7
I feel that I'm a person of worth, on an equal plane with others.	1	2	3	4	5	6	7
I'm not satisfied with my present situation.	1	2	3	4	5	6	7
I'll continue to grow best by being myself.	1	2	3	4	5	6	7
I always do things confidently and positively.	1	2	3	4	5	6	7
I believe that I can deal with my daily work.	1	2	3	4	5	6	7
I often like to consult my family when considering the purchase of an electrical product.	1	2	3	4	5	6	7
I am likely to be influenced by the suggestions of others when making a decision.	1	2	3	4	5	6	7
The quality expectations I have for the products I buy are often very high.	1	2	3	4	5	6	7
I often expect a relatively high level of service while shopping.	1	2	3	4	5	6	7

***Please do not turn this page until the experimenter tells you to do so***



	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
I would prefer complex to simple problems.	1	2	3	4	5	6	7
I like to have the responsibility of handling a situation that requires a lot of thinking.	1	2	3	4	5	6	7
I find great satisfaction in deliberately working hard and for long hours.	1	2	3	4	5	6	7
The idea of relying on thought to make my way to the top appeals to me.	1	2	3	4	5	6	7
I really enjoy a task that involves coming up with new solutions to problems.	1	2	3	4	5	6	7
I prefer my life to be filled with puzzles that I must solve.	1	2	3	4	5	6	7
The notion of thinking abstractly is appealing to me.	1	2	3	4	5	6	7
I prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.	1	2	3	4	5	6	7
I usually end up deliberating about issues even when they do not affect me personally.	1	2	3	4	5	6	7
Thinking is not my idea of fun.	1	2	3	4	5	6	7
I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.	1	2	3	4	5	6	7
I try to anticipate and avoid situations that demand deep thoughts.	1	2	3	4	5	6	7
I only think as hard as I have to.	1	2	3	4	5	6	7
I prefer to think about small daily projects than long-term ones.	1	2	3	4	5	6	7
I like tasks that require little thought once I've learned them.	1	2	3	4	5	6	7
Learning new ways to think doesn't excite me very much.	1	2	3	4	5	6	7
I feel relief rather than satisfaction after completing a task that required a lot of mental effort.	1	2	3	4	5	6	7
It's enough for me that something gets the job done; I don't care about how or why it works.	1	2	3	4	5	6	7

***Please do not turn this page until the experimenter tells you to do so!***

## Instructions

### **Your Task**

For the purpose of this study, assume that **Mark** is a good friend of yours. He has recently taken up photography as a hobby. **Mark** lost his old camera and therefore needs to buy a new camera for himself.

**Mark** uses his camera to take a variety of pictures. He is considering buying a digital camera with the latest features and is willing to spend a maximum of \$500.00. Being a good friend, you are trying to help **Mark** find a digital camera.

You have a chance to win lottery reward of \$100.00 at the completion of the study. The likelihood of winning the reward is based on your final choice of digital camera for **Mark**. Please leave your name and address below (**if you wish**) in case you would be the winner. Your identification will never be used for other purpose. *To assure full confidentiality, this cover sheet will be removed from the questionnaire as soon as we receive it.*

You will have **three** minutes to examine two digital camera ads. One is for **Canview** and the other is for **Sparkle**. Both advertised digital cameras are made in Japan and priced identically at \$499.00. Your task is to select **one** of the cameras, **Canview** or **Sparkle** for your friend, **Mark**, based on the information of the ads and the advertised brands you will see. You will be asked to evaluate the ads and brands before you make a choice for **Mark**.

Please read the two digital camera ads carefully and remember the brand name and the ad associated with each one. There are no rights or wrong answers to any question. I am simply interested in obtaining your honest opinions.

Do you have any questions? If so, raise your hand. Otherwise, *please wait for the experimenters to instruct you to continue.*

**Thank you very much!**

Your name and address (**if you wish**): \_\_\_\_\_  
\_\_\_\_\_

***Please do not turn this page until the experimenter tells you to do so!***

### Section 3

You have seen the two ads of **Canview** and **Sparkle**. We would like to ask you a few questions or get your reactions to the advertisements and brands of **Canview** and **Sparkle**, respectively. Please circle one number that best reflects the degree of your reactions, opinions or feelings.

First, please indicate your level of agreement or disagreement with following statements about **Canview** and **Sparkle**, respectively.

	Canview							Sparkle								
	Strongly disagree							Strongly agree			Strongly disagree				Strongly agree	
The advertising headline appeals to my individual values.	1	2	3	4	5	6	7	1	2	3	4	5	6	7		
The advertising picture appeals to my individual values.	1	2	3	4	5	6	7	1	2	3	4	5	6	7		
The ad arguments are very strong.	1	2	3	4	5	6	7	1	2	3	4	5	6	7		
The advertising picture made me feel very comfortable.	1	2	3	4	5	6	7	1	2	3	4	5	6	7		
The advertising headline matches the advertising picture very well.	1	2	3	4	5	6	7	1	2	3	4	5	6	7		
Both the advertising headline and picture appeal to my individual values.	1	2	3	4	5	6	7	1	2	3	4	5	6	7		
The advertising headline reflects the meanings of the advertising picture.	1	2	3	4	5	6	7	1	2	3	4	5	6	7		

Next, we would like to know your involvement about **Canview** and **Sparkle**, respectively, while looking at, and evaluating the advertising messages.

For **Canview**, you were:

Not involved at all	1	2	3	4	5	6	7	Highly involved
Not concentrating at all	1	2	3	4	5	6	7	Concentrating very hard
Not paying attention at all	1	2	3	4	5	6	7	Paying a great deal of attention
Not spending any effort at all	1	2	3	4	5	6	7	Spending a lot of effort

For **Sparkle**, you were:

Not involved at all	1	2	3	4	5	6	7	Highly involved
Not concentrating at all	1	2	3	4	5	6	7	Concentrating very hard
Not paying attention at all	1	2	3	4	5	6	7	Paying a great deal of attention
Not spending any effort at all	1	2	3	4	5	6	7	Spending a lot of effort

In your thoughts, the ad for **Canview** was:

Very unpersuasive	1	2	3	4	5	6	7	Very persuasive
Very uninformative	1	2	3	4	5	6	7	Very informative
Not very meaningful	1	2	3	4	5	6	7	Very meaningful
Very difficult to understand	1	2	3	4	5	6	7	Very easy to understand
Very unrealistic	1	2	3	4	5	6	7	Very realistic
Completely untrustworthy	1	2	3	4	5	6	7	Completely trustworthy
Very biased	1	2	3	4	5	6	7	Very unbiased
Not appealing to my ind. values	1	2	3	4	5	6	7	Appealing to my ind. values

In your thoughts, the ad for **Sparkle** was:

Very unpersuasive	1	2	3	4	5	6	7	Very persuasive
Very uninformative	1	2	3	4	5	6	7	Very informative
Not very meaningful	1	2	3	4	5	6	7	Very meaningful
Very difficult to understand	1	2	3	4	5	6	7	Very easy to understand
Very unrealistic	1	2	3	4	5	6	7	Very realistic
Completely untrustworthy	1	2	3	4	5	6	7	Completely trustworthy
Very biased	1	2	3	4	5	6	7	Very unbiased
Not appealing to my ind. values	1	2	3	4	5	6	7	Appealing to my ind. values

According to your feelings, please circle the number that best describes how much you agree or disagree with the statement.

	Canview							Sparkle						
	Strongly disagree						Strongly agree	Strongly disagree						Strongly agree
The ad made me feel pleasant.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
I felt the ad was boring.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
The ad made me feel excited	1	2	3	4	5	6	7	1	2	3	4	5	6	7

In your opinion, the ad for **Canview** was:

Very bad	1	2	3	4	5	6	7	Very good
Highly dislikable	1	2	3	4	5	6	7	Highly likable
Very unfavorable	1	2	3	4	5	6	7	Very favorable
Highly uncreative	1	2	3	4	5	6	7	Highly creative
Least attractive	1	2	3	4	5	6	7	Very attractive
Totally uninteresting	1	2	3	4	5	6	7	Totally interesting
Highly implausible	1	2	3	4	5	6	7	Highly plausible

In your opinion, the ad for **Sparkle** was:

Very bad	1	2	3	4	5	6	7	Very good
Highly dislikable	1	2	3	4	5	6	7	Highly likable
Very unfavorable	1	2	3	4	5	6	7	Very favorable
Highly uncreative	1	2	3	4	5	6	7	Highly creative
Least attractive	1	2	3	4	5	6	7	Very attractive
Totally uninteresting	1	2	3	4	5	6	7	Totally interesting
Highly implausible	1	2	3	4	5	6	7	Highly plausible

How likely is it that **Canview** and **Sparkle** cameras have the following characteristics?

	Canview							Sparkle						
	Very unlikely						Very likely	Very unlikely						Very likely
It has a luxurious appearance.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
It is available in different colors.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
It has a number of functions.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
It is available in different price ranges.	1	2	3	4	5	6	7	1	2	3	4	5	6	7
It has good quality.	1	2	3	4	5	6	7	1	2	3	4	5	6	7





	Highly improbable							Highly probable
Would you buy <b>Canview</b> for <b>Mark</b> ?	1	2	3	4	5	6	7	
Would you buy <b>Sparkle</b> for <b>Mark</b> ?	1	2	3	4	5	6	7	

What is the likelihood that you would choose **Canview** or **Sparkle** for **Mark**?

(Please divide 100% approximately in proportion to the likelihood of choosing each brand)

Probability of selecting **Canview** for **Mark**: \_\_\_\_\_

Probability of selecting **Sparkle** for **Mark**: \_\_\_\_\_

**TOTAL**                      **100%**

	Highly unsatisfied							Highly satisfied
How do you feel about choosing <b>Canview</b> for <b>Mark</b> ?	1	2	3	4	5	6	7	
How do you feel about choosing <b>Sparkle</b> for <b>Mark</b> ?	1	2	3	4	5	6	7	

	Not at all important							Extremely important
How important was it for you to choose <b>Canview</b> for <b>Mark</b> ?	1	2	3	4	5	6	7	
How important was it for you to choose <b>Sparkle</b> for <b>Mark</b> ?	1	2	3	4	5	6	7	

	Not at all appropriate							Very appropriate
How appropriate would it be to buy <b>Canview</b> for <b>Mark</b> ?	1	2	3	4	5	6	7	
How appropriate would it be to buy <b>Sparkle</b> for <b>Mark</b> ?	1	2	3	4	5	6	7	

How would you judge the advertised cameras of **Canview** and **Sparkle** on the price of \$ 499.00, respectively?

	Canview							Sparkle									
	Strongly disagree							Strongly agree				Strongly disagree			Strongly agree		
It is very inexpensive.	1	2	3	4	5	6	7	1	2	3	4	5	6	7			
It has a low price.	1	2	3	4	5	6	7	1	2	3	4	5	6	7			
It is very affordable.	1	2	3	4	5	6	7	1	2	3	4	5	6	7			

## Section 4

The following questions deal with demographics:

Are you:  Male  Female

Are you:  Single  
 Married or living together  
 Separated or divorced  
 Widowed

In what country were you born? Country: \_\_\_\_\_

What is your present nationality? \_\_\_\_\_

Please indicate your age bracket:

under 25 years  40 to 49 years  
 25 to 29 years  50 to 59 years  
 30 to 39 years  60 years and over

Please indicate your total **family** gross income bracket:

Less than \$30,000  \$70,000 to \$89,999  
 \$30,000 to \$49,999  \$90,000 and over  
 \$50,000 to \$69,999

Please indicate the highest level of education you attained:

elementary school  
 high school  
 community college/technical school/diploma  
 undergraduate university degree  
 graduate university degree

What is your occupation? \_\_\_\_\_

What is your employment status? (circle one number)

Work full time (30 or more hours per week) 1  
Work part-time (less than 30 hours per week) 2  
Retired, pensioned 3  
Student 4  
Unemployed 5  
Homemaker only 6

How would you rate overall comprehension of this questionnaire?

\_\_\_\_\_ I had no problem understanding the questionnaire. I understood every question.

\_\_\_\_\_ There were a few questions that I didn't understand.

\_\_\_\_\_ There were many questions that I didn't understand. I found it very difficult to understand the questions.

\_\_\_\_\_ I didn't understand anything of what was written.

How would you rate your understanding of the instructions given to you?

\_\_\_\_\_ I had no problem understanding the instructions. I understood very well.

\_\_\_\_\_ There were a few instructions that I didn't understand.

Indicate what you were not sure of:

\_\_\_\_\_

\_\_\_\_\_ There were many instructions that I didn't understand. I found it very difficult to follow.

\_\_\_\_\_ I didn't understand anything of what was said.

What do you think the purpose of the present study was? Please be brief.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

***Thank you for completing this study. On your way out, give the booklet and manila envelopes to the experimenter.***

问卷编号： \_\_\_\_\_

亲爱的女士/先生们：

按照 Concordia 大学(加拿大、蒙特利尔市)授予商学博士学位的要求，我正在中国从事一项关于不同背景人士对广告认识的研究。

我非常感谢您参与这项调研并完成问卷。该调研将花费您大约 30 分钟。请明确，您的所有回答纯属机密，仅供用于在 Concordia 大学的研究。在该调研中，没有人知道或使用您的姓名。

此项研究是我成功完成博士学位所必须的，因此我真诚地希望您能参与这项调研。

再次感谢您的参与并希望您喜欢这次调研！

市场学博士生：滕乐法

导师：Michel Laroche 博士  
加拿大皇家学院院士

## 怎样使用该问卷

该问卷及两个信封是为今天的调研提供的。请将两个信封放在您座位的右上角。该问卷中会有一些说明，它描述了您在该项调研中要完成的每个任务。对每个任务，您将回答一些问题。

就问卷中的大多数问题，要求您圈出与您看法最接近的号码，答案无对错之分。例如：

**1. 我总是注重穿着。**

非常不 同意	不 同意	稍不 同意	中 性	稍 同意	同 意	非常 同意
1	2	3	4	5	⑥	7

另一些问题是要您圈出最能体现您的态度的号码。例如：

**2. 我刚看过的那部电影是**

很不好 1      2      ③      4      5      6      7 很好

该问卷中含有一些指令，指明您什么时候打开和使用那两个信封。请注意，听到实验员指令后，再打开信封。

当您完成某一页问题时，请不要翻看或修改前一页的回答。当然，也不要修改本页中您已经做过的问题。

该问卷和指令说明尽量设计得既简洁又容易理解。但如果您仍然对有的问题理解不够确切，请随时提问，实验员会帮助您。

**请听到实验员指令后，再翻页！谢谢！**

## 第一部分

在这部分里，我们想知道您对下列每句陈述的同意程度。这些陈述仅代表一些人的观点。请圈出与您看法最接近的号码，答案无对错之分。

	非常不 同意	不 同意	稍不 同意	中 性	稍 同意	同 意	非常 同意
能与其他人相互依存是生活中的一件乐事。	1	2	3	4	5	6	7
我不喜欢与我的好友住得很近。	1	2	3	4	5	6	7
我和我的亲戚及朋友有着亲密的关系。	1	2	3	4	5	6	7
假如我的亲戚告知他/她经济拮据，我会在经济上尽力帮助他/她。	1	2	3	4	5	6	7
我很欣赏知恩必报之人。	1	2	3	4	5	6	7
<hr/>							
尊敬老人不是每个人的义务。	1	2	3	4	5	6	7
我和我的父母间拥有传统的关系。	1	2	3	4	5	6	7
任何发生在我身上的事都是我个人的事。	1	2	3	4	5	6	7
令自己快乐是我生命中最重要的事情。	1	2	3	4	5	6	7
当面对个人难题时，由自己决定如何处理总比征询别人的意见好。	1	2	3	4	5	6	7
<hr/>							
任何人在行为上都不应走极端。	1	2	3	4	5	6	7
我的生活在极大程度上被偶然事件所控制。	1	2	3	4	5	6	7
我觉得大多数在我生活中发生的事情都被有权力的人所决定。	1	2	3	4	5	6	7
我能达到我的目的，通常是因为我的运气好。	1	2	3	4	5	6	7

	非常不同意	不同意	稍不同意	中性	稍同意	同意	非常同意
在很大程度上，我能决定我的生活将是怎样。	1	2	3	4	5	6	7
对我而言，提前太多作出打算是不明智的。因为许多事情的成败最终不过是取决于运气的好坏。	1	2	3	4	5	6	7
我能达到我的目的，通常是因为我努力工作。	1	2	3	4	5	6	7
我的生活不是由我个人的行为来决定。	1	2	3	4	5	6	7
我尽力在物质和精神上不依赖他人。	1	2	3	4	5	6	7
我太过于依据他人的标准生活。	1	2	3	4	5	6	7
当我在小组里，经常因害怕说错话而讲得少。	1	2	3	4	5	6	7
当我与那些比我地位高的人交往时，我总是有自知之明。	1	2	3	4	5	6	7
在公开场合表露情感是可以被接受的。	1	2	3	4	5	6	7
为了减少尴尬，我总是谨慎行事。	1	2	3	4	5	6	7
我对我自己只有一半的信心。	1	2	3	4	5	6	7
在社交场合，我很害羞，也很有自知之明。	1	2	3	4	5	6	7
我认为我和别人一样有价值。	1	2	3	4	5	6	7
我对自己的现状不满意。	1	2	3	4	5	6	7
保持自我本色将使自己成长得更好。	1	2	3	4	5	6	7



	非常不同意	不同意	稍不同意	中性	稍同意	同意	非常同意
我做事总是既有信心又态度积极。	1	2	3	4	5	6	7
我相信我有能力处理自己的日常事务。	1	2	3	4	5	6	7
当考虑购买一件电器时，我常喜欢征询家里其他人的意见。	1	2	3	4	5	6	7
做决定时，他人建议对我有某种程度上的影响。	1	2	3	4	5	6	7
我对我购买产品的质量常常有非常高的期望。	1	2	3	4	5	6	7
购物时，我常常期望能有相当好的服务。	1	2	3	4	5	6	7

**请听到实验员指令后，再翻页！谢谢！**

## 第二部分 (数码相机)

这部分是关于您对数码相机的看法。下面的问题既简单又直接，请圈出与您看法最接近的号码。

您喜欢参与一个关于数码相机的对话吗？

非常不喜欢 1 2 3 4 5 6 7 非常喜欢

基于您的生活方式，您是否感到数码相机对您来说是一个重要的东西？

一点也不重要 1 2 3 4 5 6 7 非常重要

关于数码相机的性能和用途，您知道多少？

知道很少 1 2 3 4 5 6 7 知道很多

和其他人相比，您怎样评价您的数码相机知识？

知识最少的人 1 2 3 4 5 6 7 知识最多的人

您曾经用过数码相机吗？

用过： 1 没有： 2

您现在拥有数码相机吗？

拥有： 1 没有： 2

	非常不 同意	不 同意	稍不 同意	中 性	稍 同意	同 意	非常 同意
总体来说，我很会区分 数码相机的优劣。	1	2	3	4	5	6	7

我认为几种主要数码相机的 品牌间没多大区别。	1	2	3	4	5	6	7
---------------------------	---	---	---	---	---	---	---

购买一个新数码相机之前， 我愿意花大量的时间和精力 去查看相机广告、品牌。	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

下面四个相机除了像素和光学变焦外，其他方面都相同（包括价格），您必须从中选出一个相机。下面列出了这四个数码相机的像素和光学变焦指标，您想选择哪个相机？

相机 A：250 万像素2 倍光学变焦

相机 B：430 万像素3 倍光学变焦

相机 C：130 万像素3 倍光学变焦

相机 D：350 万像素2 倍光学变焦

当您考虑购买价格在 3000 元至 9000 元的豪华电器时，您家人或朋友的意见在多大程度上影响您的决定？

	1	2	3	4	5	6	7	很大影响	
			非常不同意	不同意	稍不同意	中性	稍同意	同意	非常同意
我更喜欢处理相对复杂的问题。	1	2	3	4	5	6	7		
我喜欢承担需要深思熟虑的事情。	1	2	3	4	5	6	7		
我很乐于深入而持久的思考。	1	2	3	4	5	6	7		
依靠思考而取得成功，这种想法对我很有吸引力。	1	2	3	4	5	6	7		
我真的喜欢能够用新的方法来解决问题的任务。	1	2	3	4	5	6	7		
我喜欢我的生活充满未解之谜。	1	2	3	4	5	6	7		
我对抽象思维的概念很感兴趣。	1	2	3	4	5	6	7		
较之于重要而不需要思考的任务，我更喜欢智力的，困难的及重要的任务。	1	2	3	4	5	6	7		
那些甚至与己无关的问题，我也常耗尽心思去考虑。	1	2	3	4	5	6	7		
思考不是我心目中的乐趣。	1	2	3	4	5	6	7		
较之于那些挑战我的思考能力的事，我更愿意做不需要思考的事。	1	2	3	4	5	6	7		
我努力避免应付那些需要深入思考的情况。	1	2	3	4	5	6	7		
我只在必须时才作深入的思考。	1	2	3	4	5	6	7		
较之于长远的计划，我更喜欢考虑日常的小计划。	1	2	3	4	5	6	7		

	非常不同意	不同意	稍不同意	中性	稍同意	同意	非常同意
我更喜欢那些一旦掌握后就不再需要太费心思的工作。	1	2	3	4	5	6	7
学习用新的方法思考并不吸引我。	1	2	3	4	5	6	7
完成一项需要很多脑力劳动的任务后，我感到解脱而不是满意。	1	2	3	4	5	6	7
我只重结果而不注重工作的过程和方法。	1	2	3	4	5	6	7

请听到实验员指令后，再翻页！谢谢！

# 说 明

## 您的任务：

就这个研究，假设小张是您的好朋友。摄影是他最新的爱好。可是他丢了他的旧相机，所以需要买一架新的相机。

小张需要拍摄各种不同类型的照片。他正在考虑购买一台新款的数码相机，价格在 3000 元以内。作为他的好朋友，请您尽力帮助他挑选一架合意的数码相机。

参与这次调研，您有机会获得 500 元的奖金。获得该奖金的可能性与您最后为小张选择哪种数码相机有关。如果方便，请留下您的联系地址，以便寄送奖金。（我们在收到您答好的问卷后，将把本页与问卷分开，以确保问卷匿名）。

您将有三分钟的时间去看两个数码相机的广告。一个是 Canview 的广告，另一个是 Sparkle 的广告。广告中的数码相机都是日本制造，价格都是 2999 元。您的任务是为您的朋友小张从中选出一架数码相机。在您为小张作出选择之前，您将被要求评估这两个广告及其对应的产品。

请仔细阅读这两个数码相机广告，记住其对应的品牌名字。您的回答没有对错之分，我只想知道您真实的观点。

您有什么问题吗？如果有，请举手。否则，听候实验员的指令再继续。

您的姓名及联系地址（如果您愿意）：\_\_\_\_\_

**请听到实验员指令后，再翻页！谢谢！**

### 第三部分

您刚看过 CANVIEW 和 SPARKLE 两个相机广告。希望您能回答下列问题，以便了解您对 CANVIEW 和 SPARKLE 广告及其品牌的看法。请圈出与您看法，观点或感觉最接近的号码。

首先，请您对下列关于 CANVIEW 和 SPARKLE 相机广告的描述表明您的同意程度。

	Canview 广告							Sparkle 广告						
	很不 同意						很 同意	很不 同意						很 同意
广告词符合我个人价值观。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
广告图片符合我个人价值观。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
广告提供了很强的产品性能说明。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
广告图片使我感觉很舒服。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
广告词和广告图片很匹配。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
广告词和广告图片都符合我的价值。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
广告词体现了广告图片的涵义。	1	2	3	4	5	6	7	1	2	3	4	5	6	7

下面，我们想了解您在阅读和评价 CANVIEW 和 SPARKLE 广告时，您的投入程度如何。

对 CANVIEW 而言，您是：

很不投入	1	2	3	4	5	6	7	很投入
非常不集中	1	2	3	4	5	6	7	聚精会神
根本不注意	1	2	3	4	5	6	7	极留意
根本没费力	1	2	3	4	5	6	7	费了很大努力

对 SPARKLE 而言，您是：

很不投入	1	2	3	4	5	6	7	很投入
非常不集中	1	2	3	4	5	6	7	聚精会神
根本不注意	1	2	3	4	5	6	7	极留意
根本没费力	1	2	3	4	5	6	7	费了很大努力

依您的想法，CANVIEW 广告是：

非常没有说服力	1	2	3	4	5	6	7	非常有说服力
信息量很少	1	2	3	4	5	6	7	信息量很多
没有意义	1	2	3	4	5	6	7	很有意义
很难理解	1	2	3	4	5	6	7	很容易理解
非常不真实	1	2	3	4	5	6	7	非常真实
完全不值得信任	1	2	3	4	5	6	7	完全值得信任
有偏见	1	2	3	4	5	6	7	很公正
很不对我的胃口	1	2	3	4	5	6	7	很对我的胃口

依您的想法，SPARKLE 广告是：

非常没有说服力	1	2	3	4	5	6	7	非常有说服力
信息量很少	1	2	3	4	5	6	7	信息量很多
没有意义	1	2	3	4	5	6	7	很有意义
很难理解	1	2	3	4	5	6	7	很容易理解
非常不真实	1	2	3	4	5	6	7	非常真实
完全不值得信任	1	2	3	4	5	6	7	完全值得信任
有偏见	1	2	3	4	5	6	7	很公正
很不对我的胃口	1	2	3	4	5	6	7	很对我的胃口

对 CANVIEW 和 SPARKLE 相机广告，请圈出与您感觉最接近的号码：

	Canview 广告							Sparkle 广告						
	很不 同意						很 同意	很不 同意						很 同意
该广告使我觉得很愉快。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
我感到该广告枯燥无味。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
该广告使我很激动。	1	2	3	4	5	6	7	1	2	3	4	5	6	7

依您的观点，CANVIEW 相机广告是：

极差	1	2	3	4	5	6	7	很好
极不令人喜欢	1	2	3	4	5	6	7	很讨人喜欢
极不令人喜爱	1	2	3	4	5	6	7	很令人喜爱
根本没有创造性	1	2	3	4	5	6	7	极有创造性
非常没有魅力	1	2	3	4	5	6	7	很有魅力
毫无趣味	1	2	3	4	5	6	7	很有趣味
非常不合理	1	2	3	4	5	6	7	很合理

依您的观点，SPARKLE 相机广告是：

极差	1	2	3	4	5	6	7	很好
极不令人喜欢	1	2	3	4	5	6	7	很讨人喜欢
极不令人喜爱	1	2	3	4	5	6	7	很令人喜爱
根本没有创造性	1	2	3	4	5	6	7	极有创造性
非常没有魅力	1	2	3	4	5	6	7	很有魅力
毫无趣味	1	2	3	4	5	6	7	很有趣味
非常不合理	1	2	3	4	5	6	7	很合理

CANVIEW 和 SPARKLE 相机各有多大可能具有下列特征？

	Canview 相机							Sparkle 相机						
	毫无可能						很有可能	毫无可能						很有可能
它拥有华丽外观。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
它拥有不同颜色。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
它拥有很多功能。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
它拥有不同价位的相机。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
它拥有好的质量。	1	2	3	4	5	6	7	1	2	3	4	5	6	7



总体来说，您对 **CANVIEW** 和 **SPARKLE** 相机的态度如何？

	Canview 相机							Sparkle 相机						
	很不 同意						很 同意	很不 同意						
我非常喜欢该相机。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
它是一个很好的品牌。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
它很令人满意。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
它是一个高品质的相机。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
该相机极吸引人。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
我很偏爱这个相机。	1	2	3	4	5	6	7	1	2	3	4	5	6	7

请指出您对 **CANVIEW** 相机的评价有多大把握。  
 毫无把握 1 2 3 4 5 6 7 很有把握

请指出您对 **SPARKLE** 相机的评价有多大把握。  
 1 2 3 4 5 6 7

请表明您对 **CANVIEW** 相机评价的肯定程度。  
 很不肯定 1 2 3 4 5 6 7 很肯定

请表明您对 **SPARKLE** 相机评价的肯定程度。  
 1 2 3 4 5 6 7

如果您要为小张选择 **CANVIEW** 或 **SPARKLE** 相机，请您分别给出您的购买意向程度。

	Canview 相机							Sparkle 相机						
	极不 同意						极 同意	极不 同意						
肯定要买。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
绝对会考虑购买。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
非常希望去买。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
肯定计划去买。	1	2	3	4	5	6	7	1	2	3	4	5	6	7

绝不可能 很可能

您给小张推荐 CANVIEW 相机吗? 1 2 3 4 5 6 7

您给小张推荐 SPARKLE 相机吗? 1 2 3 4 5 6 7

您为小张选择 CANVIEW 或 SPARKLE 相机的可能性有多大? (请用百分比来表明购买每种品牌的可能性)

为小张选择 CANVIEW 相机的可能性: \_\_\_\_\_

为小张选择 SPARKLE 相机的可能性: \_\_\_\_\_

合计: 100%

很不满意 很满意

给小张选择 CANVIEW 相机, 1 2 3 4 5 6 7  
您的感觉如何?

给小张选择 SPARKLE 相机, 1 2 3 4 5 6 7  
您的感觉如何?

很不重要 非常重要

给小张选择 CANVIEW 相机对您有多重要? 1 2 3 4 5 6 7

给小张选择 SPARKLE 相机对您有多重要? 1 2 3 4 5 6 7

很不合适 非常合适

给小张买 CANVIEW 相机合适? 1 2 3 4 5 6 7

给小张买 SPARKLE 相机合适? 1 2 3 4 5 6 7

您怎样评价广告中 2999.00 元的 CANVIEW 和 SPARKLE 相机?

	Canview 相机							Sparkle 相机						
	极不同意						极同意	极不同意						极同意
该相机很便宜。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
该相机定价低。	1	2	3	4	5	6	7	1	2	3	4	5	6	7
该相机的价格人们容易接受。	1	2	3	4	5	6	7	1	2	3	4	5	6	7

请继续, 谢谢!

## 第四部分

下列为被访者信息：

您是： \_\_\_\_\_ 男                      \_\_\_\_\_ 女

您是： \_\_\_\_\_ 单身  
          \_\_\_\_\_ 已婚或同居  
          \_\_\_\_\_ 分住或离婚  
          \_\_\_\_\_ 配偶过世

您在哪个国家出生？ 国家： \_\_\_\_\_

您现在的国籍？ \_\_\_\_\_

请指出您的年龄：

_____ 小于 25 岁	_____ 40 至 49 岁
_____ 25 至 29 岁	_____ 50 至 59 岁
_____ 30 至 39 岁	_____ 60 岁以上

请指出您全家一年的毛收入：

_____ 低于 5000 元	_____ 25000 至 29999 元
_____ 5000 至 9999 元	_____ 30000 至 34999 元
_____ 10000 至 14999 元	_____ 35000 至 39999 元
_____ 15000 至 19999 元	_____ 40000 至 49999 元
_____ 20000 至 24999 元	_____ 50000 元以上

请指出您的最高文化程度：

_____ 小学	_____ 大专
_____ 初中	_____ 大学
_____ 高中、中专	_____ 研究生

您目前的职业？ \_\_\_\_\_

您目前的工作状况？（请圈出一个号码）

全职(一周 30 小时以上)	1
半职(一周少于 30 小时)	2
退休	3
学生	4
失业(待业)	5
家庭妇女(男)	6

您怎样评价这个问卷？

- \_\_\_\_\_ 理解问卷没问题。我明白每一个问题。
- \_\_\_\_\_ 有几个问题我不理解。
- \_\_\_\_\_ 大多数问题我不理解。我感到理解很困难。
- \_\_\_\_\_ 对所有问题我都不理解。

您怎样评价问卷中的指令说明？

- \_\_\_\_\_ 理解指令没问题。我对指令明白无误。
- \_\_\_\_\_ 有几个指令我不理解。
- \_\_\_\_\_ 这些指令是： \_\_\_\_\_  
\_\_\_\_\_

- \_\_\_\_\_ 大多数指令我不理解。我感到理解很困难。
- \_\_\_\_\_ 对所有指令我都不理解。

您认为该调研的目的是什么？请概述：

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**感谢您完成该调研。当您出去时，请将问卷和两个信封交给实验员。**