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Culture and persuasion online: Predicting attitudes, cognitions, and behavioral intentions in a culturally diverse online marketplace

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CULTURE AND PERSUASION ONLINE: PREDICTING ATTITUDES, COGNITIONS, AND
BEHAVIORAL INTENTIONS IN A CULTURALLY DIVERSE ONLINE MARKETPLACE

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To my mother Naira Manucharova

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ABSTRACT

With an online experiment and a focus group, I examined the role of cultural appeals in online persuasive communication. The results of the study revealed that culturally oriented Web sites and online advertisements influence individual attitudes and behavioral intentions. These effects were particularly strong when cultural appeals were consistent across advertisements and their hosting Web sites. I observed the main effect of culture on persuasiveness of Web sites and advertisements both the American and the Chinese samples of participants.

The results of the study did not, however, support the expectation that ethnic identity and need for cognition would interact with the effects of cultural appeals. Participants had uniform reactions across various levels of ethnic identity and need for cognition.

The findings of my study suggest that online marketers and advertisers should focus not only on the message, but also on the media when targeting ethnic consumers. In fact, the cultural relevance between an advertisement and its hosting Web site is a prerequisite for a successful advertising campaign.

INDEX WORDS: Cultural Appeals, Ethnic Marketing, Online Advertising, Marketing Communications, Collectivism, Individualism

INTRODUCTION

In this study, I investigate the effects of cultural appeals in computer-mediated persuasive communication. I aim to identify the criteria for optimal advertisement design and placement within culturally oriented online media By taking into account technological, cultural, and personality variables specific to the Web, my study offers a comprehensive model that predicts consumer attitudes, cognitions, and behavioral intentions in an ethnically diverse marketplace. The following questions guide the overall scope of the research:

1) How do culturally oriented Web sites influence consumer attitudes?

2) How do culturally oriented online advertisements influence consumer attitudes and behavioral intentions?

3) How does the (contextual) interaction between culturally oriented advertisements and their hosting Web sites influence the effectiveness of communication?

4) How do personality variables interact with the persuasive effects of cultural appeals?

The rationale for my study derives from a need to understand how ethnic consumers respond to targeting attempts online and how those responses influence the effectiveness of such attempts. With the Internet becoming an integral part of people's daily lives, targeting consumers online has rapidly turned into a fundamental element of marketing and advertising campaigns. Since 1994, when the first online advertisements were sold, advertisers have been quick to build the medium and think of the innovative ways of reaching out to their online audiences.

Reports show that today's E-commerce can get a substantial boost from ethnic consumer markets, some of which have been traditionally underserved (IAB, 2008). The size and the buying power of ethnic communities have increased at a remarkable rate. In 2011, the combined buying power of African Americans, Asians, and Native Americans will reach $1.8 trillion, which is nearly quadruple its 1990 level of $454 billion (Selig Center, 2006). Projected to reach

15.7 million people by 2011, the Asian-American consumer market has been growing particularly fast. Its growth rate is much higher than that of the total population. Strong immigration is a primary contributor to the above trend. Asian consumers' buying power will more than quintuple, reaching from $117 billion in 1990 to $622 billion in 2011. Moreover, the 434% gain from 1990 through 2011 is much higher than the increases in buying power forecasted for Caucasians (175%), African Americans (237%), and Native, Americans (270%). As a result, Asian consumers are quickly becoming a lucrative segment in a variety of markets (Holland & Gentry, 1999).

With the growing purchasing power of ethnic groups and the persistent need for consumer segmentation, one of the challenges of online advertising today is to embrace the increasing cultural diversity of online consumers (Barbatsis, Camcho, & Jackson 2004; Gill, Glazer, & Thernstrom 1992; Holland & Gentry, 1999; Marcus, 2001; Zhang & Gelb 1996). A possible approach to the above challenge may lie in making online marketing messages culturally oriented or congruent. Consumers grow up in a certain culture and, over time, become accustomed to that culture's norms and values (Aaker & Williams, 1998; Naylor, 1996; Taylor, 1970; Cuneo, 1995; Cutler & Javalgi, 1992). Cultural values influence how consumers interact and socialize. They are a powerful force shaping lifestyles, motivations, and product choices (Tse, Belk, & Zhou, 1989; Zhang, 1996). Cultural orientation of marketing communication might, therefore, be a key to unlocking the untapped online spending of ethnic consumer. Although the integration of cultural values into the structure and content of persuasive messages may be a promising venue for marketing endeavors within digital environment, scholars have paid insufficient attention to developing frameworks for targeting ethnic consumers online (Holland & Gentry, 1999**;** Fock, 2000; Simon, 2001; Zhang, 1996). I set out to fill that gap.

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The first two chapters present the conceptual framework of this study. The chapter covers the theories and models that are used to develop and test the study's hypotheses. In these chapters, I address the literature on computer-mediated cross-cultural communication. Next, I discuss communication accommodation and schema theories. The theories represent a useful framework for formulating the hypotheses on attitudinal effects of culturally oriented Web sites. The discussion of communication accommodation theory is followed by an overview of interactivity research. I then address the need for cognition and ethnic identity as possible predictors of the persuasiveness of culturally congruent online communication. The first two chapters conclude with a summary of literature and hypotheses.

The third chapter describes the methodology of this study. In this chapter, I address the experimental design and the measurements of the study's variables. I also discuss the sampling procedure and the data collection techniques. The chapter concludes with a discussion of the study's instrument.

The fourth chapter highlights the results of the study. I start out by presenting the descriptive findings and the reliability coefficients. Next, I present the outcomes of the tests of hypotheses.

Finally, the fifth chapter summarizes and interprets the study's findings. The chapter addresses the significance of results in the context of theory building and testing. It then highlights the major industry implications of this research. I conclude the chapter with a discussion of the main limitations of this research as well as with a set of suggestions for future studies on cross-cultural computer-mediated communication.

CHAPTER 1: THEORY: REVIEW OF RELEVANT LITERATURE

Computer-Mediated Cross-Cultural Communication Research

One can categorize recent marketing and computer-mediated cross-cultural communication research into two groups. The first group consists of primarily content analytic and survey studies examining the presence of various cultural values in the design and structure of persuasive communication (Cho & Cheon, 2005; Singh, Furrer, & Massimilaino, 2004; Singh, Zhao, & Hu, 2003; Grier & Brumbaugh, 1999). Studies in this group have largely focused on exploring the cultural backgrounds of online consumers and on integrating those backgrounds into specific Web design elements (Baack & Singh, 2007; Singh, Zhao, & Hu, 2003; Singh & Matsuo, 2004).

Mueller's classic study of Japanese and American advertising appeals (1987), although focused on print advertising, laid the foundation of current cross-cultural advertising research by revealing substantial content differences in commercial advertisements across various cultures and societies. The results of Mueller's study showed that Japanese advertisements emphasized consensus, soft-sell appeal, and nature appeals. American advertisements, on the other hand, employed independence appeals, hard-sell, and product merit appeals. Although providing initial evidence for culturally oriented advertising practices, the study was limited by the small size of its sample (under 10 magazines). Furthermore, Mueller did not provide any details with regard to the comparability of the American and Japanese magazine samples on the format, circulation, and audience demographics.

Subsequent studies confirmed Mueller's findings. After analyzing the advertising appeals in 11 countries and calculating correlation coefficients for the use of each of the Hostede's cultural dimensions, Gelb and his associates found that most of the appeals reflected the core cultural values of their target groups (1996). Based on the findings of early cross-cultural

advertising research, Singh and his colleagues examined how cultural values were reflected in the content of online communication (2004). With a content analysis of 95 American and Mexican Web sites, the scholars found significant differences in the presentation of local cultural values on the Web. Consistent with earlier studies, American Web sites emphasized primarily freedom, independence, uniqueness and other individualistic themes. Gelb's study, however, had two major limitations. First, the sampling of the Web sites was based solely on a single source of company rankings. The latter made the sampling approach subjective. Second, the small sample size limited the power of the statistical tests.

Building on Singh's research, some scholars examined the presence of cultural appeals in the context of technological characteristics of the Web, such as interactivity and demassification. Cho and Cheon (2005), for example, in their cross-cultural comparison of interactivity on corporate Web sites, found that Western Web sites emphasized consumer-message and consumer-marketer interactivity. Eastern Web sites, on the other hand, focused on consumer-consumer interactivity. The latter provided consumers with greater control over information. Cho and Cheon sampled their Web sites from the United States, Japan, and South Korea. They used a total of twenty-five interactivity functions. Although providing important insights on culture-specific Web content, this study was limited by the size of its sample. For each country, Cho and Cheon analyzed only the top 10 traffic Web sites. Moreover, the authors did not use uniform measurement units when identifying the top traffic sites.

One should view the above studies as exploratory undertakings aiming to collect initial data. Most of them examined solely the presence of cultural values, but not their effectiveness. The following studies, arbitrarily classified into the second category of cross-cultural communication research, focus primarily on the outcomes of cultural appeals, rather than their presence. This category includes mainly experimental and quasi-experimental inquiries focusing

on the effects of persuasive communication. Studies in this group have examined how culturally oriented advertising (Han & Shavitt, 1994), public relations (Kanso, Sinno, & Adams, 2001; Springston & Champion, 2004) and other forms of strategic communication influence individual attitudes and cognitions.

In addition to examining the extent to which individualistic and collectivistic values were reflected in the types of persuasive appeals, Han and Shavitt explored the attitudinal effects of those appeals. The authors demonstrated that advertisements in the United States used appeals that highlighted individual benefits and preferences, independence, and personal success more than did Korean advertisements. Advertisements in Korea, on the other hand, emphasized harmony, ingroup benefits, and family integrity in their appeals. Furthermore, Han and Shavitt designed a controlled experiment where they manipulated cultural appeals in American and Korean samples of participants to examine the persuasiveness of cultural values in commercial advertising. The experiment revealed that among Korean participants, family, harmony, and ingroup benefits were more persuasive than among American participants. This research along with the other studies that examined the outcomes of culturally congruent persuasive messages expanded the understanding of cultural appeals by going beyond the traditional content-analytic approach. Nevertheless, Han and Shavitt's study had two major limitations. First, it included print advertisements only. Therefore, the results can hardly be generalized to broadcast and online media. Second, the study did not take individual measures of collectivism and individualism into account when testing its hypotheses. Therefore, explaining the effectiveness of advertisements solely by their cultural appeals might be problematic (i.e., since individual ethno-cultural differences were not controlled).

In my research, I try to expand the above categories, by focusing not only on the design of culturally oriented messages, but also on their placement within culture specific platforms or

media (i.e., Web sites). While scholars have studied the outcomes of culturally consistent online marketing communication, few, if any, examined the interaction between culturally adapted advertisements and their hosting Web sites. To date, scholars have put little effort to understand how the interaction between the online message and its medium influences the impact of the message in culturally diverse online environment. Furthermore, by taking individual measures of cultural dimensions (i.e., individualism and collectivism) I am able to provide a stronger argument in support of the effectiveness of culturally oriented appeals.

Culture and Its Dimensions

Culture has attracted the attention of researchers for centuries. Scholars studying culture have spanned the areas of history, psychology, anthropology, and sociology. An early definition of the term states that culture is "a configuration of learned behaviors and results of behavior whose component elements are shared and transmitted by the members of a particular society," (Linton, 1945, p. 32). Hofstede defines culture as the "collective programming of the mind which distinguishes the members of one category of people from another," (1984, p. 51). According to Lederach's recent definition (1995, p. 9), culture is the "shared knowledge and schemes created by a set of people for perceiving, interpreting, expressing, and responding to the social realities around them."

The idea of learned and shared values is a common and central theme in the definitions of culture. One can view values as "vehicles" carrying cultural information from one generation to another (Singh & Pereira, 2005). They are often credited as the most subtle, yet powerful embodiment of cultural thought. According to Rokeach (1973), values are "broad guidelines for acceptable ways of behaving and acting in particular situations," (p. 5). The above definitions suggest that perception and behavior are, in large part, a function of the culture. Perception is often defined as the process by which individuals sense, select, organize, filter, and interpret

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information to create a meaningful representation of the world. Research has shown that at the filtering and processing stages, cultural backgrounds interact with the environment and play an important role in processing information (Berry et al., 1992).

The Muller-Lyer illusion is an interesting phenomenon that illustrates the influence of culture on perception. The illusion makes people perceive two straight lines to be of different lengths when both lines are of the same length (Figure 1). The illusion also makes some people see two two-dimensional figures as a single three-dimensional object. Research in the 1960's showed that Africans did not experience the illusion the way Europeans and Americans did. One possible explanation for theses perceptual differences was that unlike people in the West, who are exposed to the environment of straight lines and right angles, the Africans Zulus live in a "circular culture." They reside in round huts and plough their fields in curves. Most of their possessions are round or circular in shapes (Singh & Pereira, 2005).
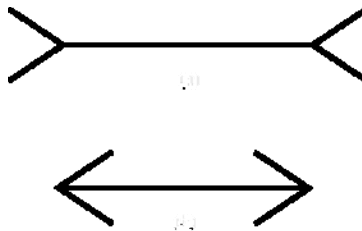
Figure 1. The Muller-Lyer Illusion

Existing cultural typologies and frameworks help understand cultures in terms of their fundamental values. Although culture is a complex phenomenon, one of its most basic dimensions is reflected in the value placed on individualism versus collectivism (Hofstede, 1991; Spence, 1985).

Individualism-Collectivism

Researchers have studied the individualism and collectivism dimensions from a wide range of perspectives. In individualistic cultures, people usually prefer independent relationships with each other. Moreover, individual goals have a higher priority than group goals (Hofstede,

1980, 1994; Han & Shavitt, 1994). Individualism embodies people's willingness to act as individuals rather than members of a unified group. The dimension represents a set of fundamental norms, which make individuals see themselves as self-directed and independent. Collectivism, on the other hand, represents people's belief in superiority of group or collective efforts over individual undertakings (Hofstede, 1980; 1991; Trompennars, 1994). Cultures, which represent collectivism, establish tightly knit social groups (Basu, 2003; Hofstede, 1980; 1994). They develop strong and interdependent relationships with one another. Contrary to individualism, collectivism refers to a social orientation in which individuals tend to see themselves as an integral part of a group. Collectivistic societies prioritize community- or group-based social order.

The Chinese society, while historically prioritizing collective actions and social interests, deemphasizes personal goals and undertakings (Hofstede, 1980; 1991). The United States, on the contrary, is often characterized by what is called "rugged" individualism, a mentality according to which each person is a unique entity separate from the group (Hall, 1976; Spence, 1985). That is why the difference in the individualism-collectivism dimension presents one of the most central topics in international marketing research (Spence, 1985; Triandis, Bontemp, Villareal, Asai, & Lucca 1988). Although globalization and international mobility of human capital can initiate a shift toward cultural unification, eliminating any culture-based variability in marketing and advertising effects, the existing scholarship suggests that culture has great inertia and cultural change is slow (Kim, Kasser, & Lee 2003; Triandis et al., 1988).

Studies on advertising in collectivistic countries have demonstrated that advertisements emphasize group-consensus appeals, family ties, and family security (Han & Shavitt, 1994). In collectivistic societies, marketers rely on indirect approaches. Appeals, such as "Working together" and "It's so good, you want to share it with others" are particularly popular in these

societies (Mooji, 1998). Advertisers and marketers working in collectivistic societies and markets tend to adjust their appeals according to the cultural identities of those markets. Although intuitive and frequently used, this phenomenon has not gotten enough scholarly attention. The communication accommodation theory I present next might shed some light on why marketers and advertisers engage in accommodative practices.

Communication Accommodation Theory

Accommodation, in theoretical sense, refers to the efforts on the part of communicators to make themselves similar to their target groups or information receivers to improve communication (Giles, Coupland, & Coupland, 1991; Holland & Gentry, 1999). One can think of accommodation as a process that involves communicators of one group borrowing descriptive characteristics from another group to appear more similar (Giles, 1973). Accommodation is an attempt or a strategy individuals use to adapt or adjust to other individuals on behavioral, attitudinal, speech, and other core dimensions. Developed based on an earlier formulated theoretical perspective known as the similarity attraction paradigm (Byrne, 1961), accommodation theory is one of the predominant theories at the interface between language, social psychology, and communication (Giles et al., 1991). Many view the theory as a "helpful" framework for understanding how individuals react to communication attempts by persons who differ from themselves (Green, 1999; Holland & Gentry, 1999).

Giles and his colleagues explain the popularity of the theory by referring to its robustness and complexity. According to the scholars, the accommodation theory is uniquely multifaceted and is able to explain both the social consequences (attitudinal, behavioral, and cognitive) and the ideological and macro-societal factors that lead to accommodation. Referring to the theory's robustness, Green (1999) showed that scholars and practitioners can apply accommodation

models to accurately evaluate the outcomes of a wide spectrum of advertising, marketing, and media placement strategies.

As already mentioned, the accommodation theory is grounded in Byrne's research on interpersonal attraction. In his classic study of attitude similarity and attraction, Byrne recorded participants' attitudes on a variety of issues, ranging from those participants thought were extremely important (e.g., religion, family, education) to those of minor importance (e.g., eating preferences, television viewing). Next, Byrne asked his participants to evaluate a fictional character based on that character's attitudes toward the above issues. Those who had common attitudes with the character, perceived the character as more intelligent, likable, and moral than those who had dissimilar attitudes with the character. This pattern emerged regardless of the perceived importance of issues. Although laying the foundation of the accommodation theory, Byrne's work has been criticized on the grounds of low external validity. The participants in Byrne's study did not have an actual interaction with people of similar or different attitudes.

The early developers of the accommodation theory focused primarily on sociolinguistic aspects of accommodation, such as accent (Giles, 1973), length of utterance and speech rate (Webb, 1972), as well as vocal intensity (Natale, 1975). Most of the early accommodation research was concerned with exploring how individuals adapt to each other's communicative behaviors in terms of a broad spectrum of linguistic and nonverbal features, including speech rate, phonological variants, and smiling. Pioneers of the theory initially looked at how the reduction of linguistic dissimilarities impacts interpersonal attraction. Recently, however, the theory has attracted substantial scholarly interest from a wide variety of disciplines, including sociology and jurisprudence (Riggins, 1992) as well as advertising and marketing (Holland & Ball, 1995; Holland & Gentry, 1999).

The theory predicts that accommodation leads to positive communication outcomes. In particular, as the speech, attitudinal, and behavioral patterns of A become more similar to those of B, the probability that B will favorably and positively evaluate A goes up (Giles et al., 1991). Research has found that behavioral and speech similarity between a speaker and his audience is likely to increase the speaker's perceived attractiveness (Byrne, 1961; Mauer & Tindall, 1983; Zhang & Gelb, 1996), intelligibility and credibility (Triandis, 1960), as well as supportiveness (Berger & Bradac, 1982) in the eyes of the audience. Koslow, Shamdasani, and Touchstone (1994) revealed that the use of Spanish language in advertising increased perceptions of the advertiser's sensitivity to Hispanic culture. Those perceptions led to greater affect toward the advertisements.

Communication accommodation theory further states that communicators engage in accommodative practices when they want to be positively evaluated by their targets. Accommodation represents one's desire or need for (social) approval. According to the theory, the greater the speaker's need to gain another's approval, the greater the degree of accommodation will be. In fact, Natale (1975) found that individuals who scored relatively highly on a personality measure of need for social approval, accommodated more to their partner's vocal intensity and pause length than did speakers who scored relatively lowly on the measure. Berg (1985), in his study of code switching in commercial settings in Taiwan, found that salespersons converged more to customers than did customers to salespersons because of customers' increasing economic power.

I will try to expand the scope of the theory by applying it to computer-mediated marketing communication. Viewing culturally congruent advertising and Web-based communication as a special case of accommodation, I posit that cultural appeals will produce positive communication outcomes. Just like reducing linguistic, behavioral, and speech

differences leads to interpersonal attraction and positive evaluations (Byrne, 1961; Giles, 1973), reducing intercultural differences between consumers and marketers through embedding cultural values into persuasive messages will generate positive outcomes.

For a comprehensive understanding of the role of culture in online communication one should examine not only the attitudinal, but also the cognitive outcomes of culturally accommodative speech. The following section provides an overview of how the use of cultural appeals in computer-mediated communication influences the cognition of Internet users. The discussion of the cognitive effects is based on the schema theory.

Schema Theory

Schema are cognitive structures that guide information processing (Fiske & Linville, 1980; Schank & Abelson, 1977). According to Speck, Schumann, and Thompson, schema "organize perception by organizing expectations," (1988, p. 70). The initial developments in the schema theory derived from a series of experiments by Bartlett (1932). In his studies, Bartlett presented participants with information that was unfamiliar to their cultural backgrounds and expectations. He then monitored how the participants recalled various items of unfamiliar information. Bartlett's experimental work revealed that people's existing schema and stereotypes affect not only how they interpret schema-atypical or schema-incongruent information but also how they memorize and recall the information over time. In one experiment, Bartlett asked his participants to read a Native American folk tale, "The War of the Ghosts." He then asked the same participants to recall it several times up to a year later. The participants altered the details of the story in such a way that it reflected their expectations and cultural norms about the Native Americans. Bartlett's initial work demonstrated that long-term memories are not static. Rather, they are constantly being adjusted to fit individual schema.

Brewer and Treyens further developed Bartlett's work by demonstrating that the schema-

induced expectations of the presence of an object were sufficient to produce its erroneous recollection (1981). In one of their experiments, Brewer and Treyens asked their participants to wait in an area identified as an academic study room. The participants were then asked about the room's contents. Several of the participants recalled having seen books in the room whereas none were present. Brewer and Treyens concluded that the participants' expectations that books are an integral element of a study room were sufficient to prevent an accurate recollection of the room's contents.

In addition to influencing information encoding, schema were also found to affect the overall information processing. Generally, events that are moderately incongruent with personal schema attract greater attention, more extensive processing, and elaboration (Campbell & Goodstein, 2001; Meyers-Levy & Tybout, 1989). The effects of schema (in)congruity on cognitive processing attracted particularly strong attention in the area of consumer research. Mandler was one of the first to apply the schema theory in the study of consumer decision-making (1982). Mandler started out with the proposition that schema congruity leads to a favorable reaction because people prefer things that correspond to their expectations, reduce uncertainty, and allow predictability. However, schema congruent objects are not particularly noteworthy. Consequently, they are unlikely to trigger extensive cognitive elaboration. The novelty of the object, according to Mandler, increases arousal while leading to greater cognitive elaboration. The latter derives from an effort to resolve the incongruity between the observed object and the individual scheme. Furthermore, objects that are moderately incongruent with individual schema tend to produce more favorable attitudes than schema-congruent objects. Mandler defined moderate incongruities as those that can be successfully resolved. Extreme incongruity, on the other hand, is the incongruity that cannot be resolved or can be resolved only if fundamental changes are made in the existing cognitive structures. Although producing

cognitive elaboration, such incongruities may lead more to frustration than resolution.

Meyers-Levy and Tybout tested Mandler's theoretical propositions in their seminal study of schema incongruity and cognitive processing (1989). With a 2 (schema activated: beverage vs. soft drink) X 2 (target attribute: high preservative vs. all natural) X 2 (dogmatism: dogmatic vs. nondogmatic) factorial between-subjects design, Meyers-Levy and Tybout found that schema incongruity led to increased cognitive elaboration relative to schema congruity. The study measured elaboration with the total number of thoughts and the overall recall of the product attributes. In the above experimental design, the attributes of the product (beverage and soft drink) were manipulated to alter the degree of schema (in)congruity.

Theses studies suggest that consumers develop schema for products and brands. Product or brand attributes that are inconsistent with a product schema attract more attention and lead to greater recall (Meyers-Levy & Tybout, 1989). Furthermore, Bellman and Rossiter (2004) argue that people develop schema for Web sites, just like they do for products. With their meta-analysis of three studies (one based on a student sample and two based on consumer samples), Bellman and Rossiter reveal that congruence between a consumer's Web site schema and the actual structure of a particular site increases the perceived navigability of the site. Moreover, the congruence leads to overall favorable attitudes toward brands and products advertised on the site.

One can think of a Web site scheme as a set of beliefs and expectations about the structural and content characteristics of Web sites. When people view Web sites that are consistent with their expectations, they know where to find the information they need. The location of information corresponds to a predictable structure. For example, Internet users know where to find company contact information (usually at the bottom of the page), and where to look for navigation bar (usually on the left side of the front page on American and European Web sites).

Internet users from collectivistic societies, such as China and India, expect Web sites to emphasize family themes and in-group consciousness in the form of visuals showing family bonding, togetherness, and symbols of national identity. Users from some Middle Eastern cultures expect separate Web site entrances/pages for males and females (Singh & Pereira, 2005). Meeting these expectations decreases cognitive effort involved in processing information on the site, while leading to easier navigation (Luna, Peracchio, & de Juan, 2002). This, as already mentioned, is a result of individual schema being consistent with observed information. This consistency facilitates categorizing, processing, and interpreting culturally congruent messages (D'Andrade, 1992). When, on the other hand, Web site-related expectations are not met, users will spend greater cognitive effort navigating through the site. This, although irritating some of the users might enhance focused attention and produce high levels of concentration. A user will read and elaborate on the online information more thoroughly. Therefore, an inconsistency of the Web site with the user's schema or expectations might lead to greater attention and concentration while visiting the site.

Based on the above evidence, the schema theory can explain the relationship between individual schema and elaboration not only in the context of products and brands, but also in the context of Web sites. Furthermore, some could argue that, in addition to schema theory, there might be other frameworks explaining the cognitive effects of schema-(in)congruent online content. An example of such framework is the expectancy violation theory. The theory aims to explain people's reactions to unexpected behaviors (Burgoon, 1978).

Expectancies derive from social norms and cultural practices. Violations of expectancies lead to arousal while producing a series of cognitive appraisals of the violation. The theory further predicts that positive violations of expectancies will increase the attraction toward the violator. The negative violations, on the other hand, will decrease the attraction toward the

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violator. Although explaining the relationship between expectations and individual perceptions, the theory is limited in its scope. Unlike the schema theory, which provides a comprehensive understanding of how *inconsistencies* and *consistencies* between schema and observations influence cognitive processing, the expectancy violation theory focuses exclusively on the outcomes of expectancy violations without fully addressing the circumstances when individual expectancies or schema are met. In so doing, the theory provides a rather limited view of how expectations influence attitudes and processing. Furthermore, unlike the schema theory, the expectancy violation theory is concerned primarily with attitudes, rather than cognition. The overall goal of the theory is to explain how the negative and positive violations of expectations influence liking and attraction. As such, the theory is useful for understanding primarily the *attitudinal* outcomes of unexpected behaviors and situations.

Interactivity in Computer-Mediated Communication

The complex nature of interactivity has resulted in sharp disagreements among researchers as to how to conceptualize the concept (McMillan & Hwang, 2002; Wu, 2000; Macias, 2003). Some viewed interactivity as an element of the communication process (Blattberg & Deighton, 1991; Kirsh, 1997; Milheim, 1996; Heeter, 2000). Others saw it as a medium characteristic (Hoffman & Novak, 1996; Steuer, 1992). There have been studies that defined interactivity as a communication system property (Jee & Lee, 2002), emotional state (Newhagen, Corders, & Levy, 1995), and characteristic of communication settings (Rafaeli, 1988).

Rafaeli is perhaps the most frequently cited scholar in interactivity research. He offered the first conceptualization of interactivity that was applied to computer-mediated research. In Rafaeli's opinion, interactivity is "an expression of the extent that in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions" (p. 111). This definition

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became the basis of the contingency view. Based on this view, interactivity represents the interconnectedness of communication messages. Contingency view implies that users can adequately process interactivity only if messages are highly interrelated (Sundar, 2003). This view sharply differs from the functional approach to defining interactivity. Under the functional approach, interactivity is a Web site's interface's capacity to enable an information exchange or a dialogue between the user and the site.

 Some scholars took the above debate a step further by introducing yet another dimension to the notion of interactivity. McMillan argued that there is a difference between a web site's "actual" or "objective" interactivity and the one perceived by Internet users (2000). Under the perceptual view of interactivity, the same Web site might be interactive to some users, but not to others. Consistent with McMillan, Bucy has argued that treating interactivity as a perceptual variable "routinizes the concept and makes it a part of everyday media experience." This, in turn, fosters "the concept's theoretical development by enabling empirical measurement through attitudinal and emotional scales" (p. 377, 2004). In their attempt to further propagate the perceptual view of interactivity, McMillan and Hwang noted that consumer perceptions are key in advertising research. Accordingly, the perception-based approach to defining interactivity is the most practical (2002).

Limitations of Interactivity Research

The discrepancies in conceptual definitions produced various methodological inconsistencies in interactivity research. This, in turn, reduced the overall replicability of the scholarship. For example, while some operationalized interactivity in terms of the number of hyperlinked layers or pages (Sundar & Kim, 2005), others measured interactivity based on the level of Web site customization (Chen, Griffith, & Shen, 2005).

Chen and his colleagues, in their study of online brand management, examined the effects

of interactive media on consumers' trust in brands and purchase intentions. Similar to Sundar and Kim, they tested three levels of interactivity: high, medium, and low. Rather than manipulating the number of hierarchically connected hyperlinks (as Sundar and Kim did), Chen, Griffith, and Shen altered the degree of product customization on a retail clothing Web site. They did so by changing the number of available fabrics and creating models whose heights and weights matched those of the target group. One can argue that employing two drastically different operationalizations of interactivity can deprive research from standardized observations and compatible conclusions.

The lack of a balance in the spectrum of data collection techniques is yet another limitation of interactivity research. Most of the studies in advertising and marketing communications have been based on experimental designs. Although strong in internal validity, many of these studies (especially those conducted in laboratory settings and based on convenience samples) did not produce generalizable data regarding the effects of interactivity.

For example, Coyle and Thorson, in their study of interactivity and Web attitudes, exposed their participants to four Web sites with various levels of interactivity (2001). Interactivity led to positive attitudes toward the site and increased feelings of telepresence. Although contributing to current computer-mediated literature (by analyzing previously under-explored variables, such as perceived telepresence), Coyle and Thorson's study did not provide a comprehensive understanding of how Internet users use or react to interactive features in their everyday lives.

Similarly, Macias, with a structural equation model of persuasion, demonstrated that interactivity is a central and direct variable in both the user's comprehension of and attitudes toward interactive advertising (2003). She used the limited capacity processing model as the main theoretical framework for her study. With a two-cell interactivity (low and high)

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experimental design and a sample of 153, Macia examined how the level of interactivity in advertisements affected attitudes and comprehension. Although providing valuable insights into the nature of comprehension as a function of interactivity, Macia's model did not capture the complexities of today's online environment. One way to strengthen the model would be to include user traits, such as need for cognition and Internet self-efficacy as possible moderators of interactivity's effects.

While several scholars have studied the effectiveness of interactive messages and media, few have explored the mechanisms behind interactivity's persuasive potential. Along with understanding the attitudinal, cognitive, and behavioral effects of online interactive features, it is important to know the circumstances under which the above effects are particularly salient. Jee and Lee's study of antecedents and consequences of perceived interactivity is an important work in this direction (2002). With Wu's measure of perceived interactivity (2000), Jee and Lee examined not only the effects of interactive online speech, but also some of the causes behind those effects. They found that need for cognition and web skills were significant predictors of perceived interactivity. Users with high NFC were more likely to perceive a Web site as having greater interactivity than users with low NFC. Similarly, novice users perceived Web sites as more interactive than did experts. Jee and Lee conducted their study using the following realistic web sites: Dell, Compaq, and Apple. They recruited a total of 39 college students who surfed the three Web sites for about 30 minutes. Following this, Jee and Lee took individual measures of need for cognition and computer skills. They then asked their participants to answer questions measuring perceived interactivity of and attitude toward each of the above Web sites.

Finally, one can argue that most of the interactivity research has been focused on the Web. As a result, there is a limited understanding of how interactivity works beyond Web sites and online advertisements. Expanding the scope of current scholarship and exploring

interactivity in alternative digital formats, such as cell phones and GPS navigation systems is yet another important direction for future research.

Research has shown that respondent-related variables may interact with the effects of cultural appeals (Aaker, 2000). Accordingly, along with examining the effects of online cultural appeals on (perceived) interactivity and other dependent variables, I also analyze the possible interaction effects of need for cognition and ethnic identity on the relationship between culture and persuasion. The following section addresses need for cognition and ethnic identity as possible interaction variables.

Interaction Variables

Need for Cognition

Need for cognition (NFC) refers to the tendency to engage in and enjoy effortful thinking (Cacioppo & Petty, 1982). High-NFC individuals form their attitudes toward a message (or a product) based on the evaluations of the cues that are central to the message. Low-NFC consumers form their attitudes relying on more simple cues, such as message source attractiveness, perceived credibility, source expertise, and other peripheral or secondary elements (Haugtvedt, Petty, & Cacioppo, 1992). In other words, NFC represents the need to process information in an effortful way (Petty & Wegener, 1998).

In advertising, studies have found that humorous advertisements are more persuasive for low-NFC consumers than for high-NFC consumers (Zhang, 1996; Zhang & Buda, 1999). These findings, derived primarily from experimental research, are in line with the hypotheses of the Elaboration Likelihood Model (ELM), which argue peripheral cues, such as humor are more persuasive among people with low NFC and product involvement. Research has also revealed that high-NFC consumers are less susceptible to the persuasive effects of message frames than low-NFC consumers.

Because cultural elements in communication are part of message design or format rather than message argument, it seems legitimate to view cultural appeals as peripheral cues. The presence or lack of cultural elements does not affect the overall content of a message. Rather, it affects the frame or format in which the message is communicated to an audience. Consequently, low- (versus high-) NFC participants are more likely to react to culturally congruent marketing communication. Instead of carefully evaluating the arguments in the persuasive messages, low-NFC participants are expected to concentrate on and react to the cultural appeals. Low-NFC participants should view congruity between their cultural background and the message's cultural orientation as a peripheral cue and shape their evaluations based on this match. I expect cultural appeals to "matter" primarily for low-NFC consumers. This prediction is based on the evidence that the superiority of culture-congruent ad themes is not observed under conditions of high NFC and involvement (Aaker, 2000). As Han and Shavitt demonstrated in the earlier described experiment, culturally congruent advertising themes were more persuasive in promoting low-involvement products (e.g., detergents) thank in high-involvement products (1994).

Ethnic Identity

The term *ethnicity* refers to people or social groups who perceive themselves as a community as a result of common culture, language, history, traditions, and customs (Riggins, 1992). Ethnic identity is a component of acculturation that explains the way members of an ethnic group relate to the group as a subset of the greater society (Driedger, 1978). As a broad umbrella for a variety of representations and meanings, many believe ethnic identity is one of the most complex notions in cross-cultural research (Driedger, 75; 78; Keefe, 1992). Several scholars argued, however, that ethnicity reflects a sense of common ancestry, based on universally shared individual characteristics and sociocultural norms (Keefe, 1992; Williams & Quails, 1989). After conducting a series of factor analytic tests, Laroche and his colleagues

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(Laroche, Kim, Tomiuk, & Belisle, 2005) proposed a general three-dimensional structure of ethnic identity. The structure includes the following dimensions: ethnic language use, ethnic media exposure, and ethnic attachment. The current study conceptualizes ethnic identity as the level to which one retains or loses the values, norms, and other fundamental aspects of his or her native culture.

Ethnic identity influences the way minority members interpret communication messages. Research has revealed significant differences in evaluation of persuasive messages among minority groups who represent the same culture, but differ on the strength of ethnic identity (Green, 1999; Herd & Grube, 1996). Strength of ethnic identity is a significant predictor of audience perceptions of advertisements (Whittler, 1991; Whittler & DiMeo, 1991; Green, 1999). Green's study on the effects of ethnic identification, media placement, and ad racial composition, found that African-American consumers with strong ethnic identities react more positively to advertisements that feature African-Americans in dominant positions, whereas consumers with weak ethnic identity have more positive evaluations of advertisements that feature whites in dominant positions.

Green evaluated the effects of his independent variables with a two (strong ethnic identifier versus weak ethnic identifier) by two (racially targeted versus non-targeted media) by four (black model, white model, black-dominant integration, white-dominant integration) experimental design. Although using a well-controlled experimental design, the results of Green's study should be generalized with caution. The sample of the study was heavily skewed toward highly educated female consumers. Whittler also confirmed the interaction effects of ethnic identity on advertising effectiveness (1991). After examining the effects of the actor's race in the ad, Whittler found that consumers with strong racial attitudes and ethnic identities were more likely to be affected by source effects (i.e. actor's race), rather than message claims, than

those with weak racial attitudes. The study used full-color professionally prepared storyboards to advertise two fictional products. Each product had two versions. One featured a white male. The other featured a black male. Whittler asked his participants to rate the white and black actors based on their attractiveness and perceived intelligence. To exclude possible confounding variables, the advertising models had the same dress, gestures, and facial expressions. Race was the only quality that differentiated the two models. Although based on a convenience sample and limited in its generalizability, Whittler's study contributes to the existing scholarship by confirming the positive effects of racial and cultural cues in commercial advertising.

Based on the above evidence, I posit that ethnic identity will have additional evaluative effects on participants' responses to cultural appeals. These effects are not accounted by participants' cultural backgrounds and cultural appeals alone.

In the following paragraphs, I present the vehicle source effect to further develop my initial model. Vehicle source effect is a framework that helps understand how media vehicles, such as Web sites, influence the perceptions of their content. The discussion of the vehicle source effect is followed by an overview of the relationship between attitudes and behavior as they influence ad evaluations and purchase intent.

Vehicle Source Effect

In an online environment, advertisements do not appear alone. They usually appear embedded in a non-advertising context within a medium or a vehicle (e.g., editorial content, programming). Vehicle or medium source effect refers to the relative value of an ad exposure as a result of the exposed vehicle (Aaker & Brown, 1972). The effect represents audience reactions that derive solely from the media in which the content is embedded.

Vehicle source effect is one of the least explored subjects in advertising and marketing communication in general. Few scholars have examined the outcomes of persuasive messages as

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a function of media. Among those who did, most have studied the effect within the same media by manipulating the editorial content, format, perceived credibility, prestige and other characteristics of a medium (Aaker & Brown, 1972; Frieden, 1982). A relatively small portion of scholars has examined the vehicle source effect across media by comparing and contrasting the persuasiveness of various forms of communication, such as print and electronic media (Sundar, Sunetra, Rafael, & Charu, 1998).

Aaker and Brown's early study of advertisements in prestigious magazines is one of the most systematic efforts to explore the interaction between vehicle characteristics with advertising and consumer factors (1972). The study showed that different vehicles influence differently the persuasiveness of the same advertising claims. In particular, product quality claims were more effective in prestige magazines, because consumers associated the claims with their overall media environment. The persuasiveness of prestigious magazines persisted independent of the quality or the logical merits of the claims.

Aaker and Brown conducted their study by designing a within-subjects experiment where they compared advertising effectiveness across two types of vehicles: prestigious magazines and expert magazines. Participants saw the same full-page color advertisements in two different publications. The resulting differences in ad attitudes between the two experimental conditions represented the vehicle source effect. Although providing initial insights into the role of media in advertising persuasiveness, Aaker and Brown's study, similar to other early experimental research, had a highly limited external validity. Furthermore, the sample of participants included only middle-aged housewives.

Research following Aaker and Brown's seminal work confirmed the vehicle source effect by showing that an advertiser delivering the same message to the same audience can reach different outcomes depending on the advertising environment or the context in which the ad is

placed (Frieden, 1982; Chaiken & Stangor, 1987). Freiden, for example, revealed that advertisements placed in high-prestige magazines produced more positive attitudes than advertisements placed in low-prestige magazines (1982). In his experiment, Freiden used National Geographic and Scientific American as high-prestige magazines and People and Us as low-prestige magazines. One of the limitations of Freiden's study is the reliance on a small sample of participants in identifying the level of magazine prestige. In Freiden's study, only 10 participants were involved in classifying the magazines into low- versus high-prestige categories. A larger sample would have provided a more objective categorization of magazines.

In a more recent study, Choi and Rifon found that the perceived credibility of a medium determined the perceived credibility of its content (2002). In particular, the content of the website in which banner advertisements were placed influenced consumer reactions to the advertisements and the advertised brands. In their study of the antecedents of online advertising effectiveness, Choi and Rifon revealed that credibility toward a Web site produced credibility and positive attitudes toward advertisement. Choi and Rifon varied the level of perceived credibility with two online photojournalism magazine sites. One site represented a well-known and well-established magazine, "LIFE." The other site represented a relatively obscure publication, "foto8." Both magazines contained an editorial feature and two identical banner advertisements. The main limitation of Choi and Rifon's study lies in the simplicity of the research model employed to identify the predictors of Internet advertising effectiveness. Including product use conditions and personality variables into the model would have provided a more complex view of online advertising effects. In addition, Choi and Rifon measured Web site credibility with only three items: believable, convincing, and credible. Future studies in this direction should take more through measures of perceived credibility.

The above scholars have examined the vehicle source effect within single media by

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manipulating the characteristics of the media (e.g., status, prestige, credibility). There were some who studied the vehicle source effect across various media. Finch and Quackenboss, for example, investigated the role of media vehicles in the persuasiveness of marketing communication by placing the same advertisements in five different media: magazines, newspapers, radio, television, and the Internet (2001). In Finch and Quackenboss' study, 121 participants were asked to rank the above five classes of media with respect of their trustworthiness as a source of information and news. Next, another group of participants ranked the advertisements for each single media class. According to the findings of this study, he choice of media and specific vehicles within the medium made substantial positive or negative contributions to the effectiveness of persuasive communication (2001). Furthermore, Finch and Quackenboss found that the level of audience involvement did not influence the effects of message vehicles on persuasion. Persuasion in Finch and Quackenboss' was operationalized in terms of cognitive and attitudinal effects, such as advertising recall, brand attitudes, and perceived credibility.

In an earlier study, Sundar and his associates conducted a between-subjects experiment to explore whether memory for an advertisement derives from the medium that carries the advertisement (1998). By exposing a sample of undergraduate students to either a print newspaper front page or an online version of the same content, Sundar found that advertisements placed in print media triggered significantly greater recall and recognition than advertisements placed in online media. Participants in the print media condition remembered much more advertising material than participants in the online media condition.

Although the majority of scholars examining the vehicle source effect have tested their hypotheses in an out-of-context environment without taking into account situational and personality variables, one can still conclude that the image and perceptions of a given message

are shaped, in part, by the image and perceptions of its hosting medium. The idea that media vehicles influence the perceptions of their messages is well in line with McLuhan's argument that media is the message (1964). Furthermore, McLuhan pointed out that the psychological effects of media on audiences are greater than the effects of message content. He argued that media channels produce their own unique messages and meanings.

Consistent with the above findings, I expect my participants to "carry" their evaluations of culturally congruent Web sites over to the advertisements placed on those sites. Based on the vehicle source effect literature, attitudes toward the site (whether positive or negative) should transfer to attitudes toward the ad.

Attitudes, Intentions, and Behavior

The relationship between attitudes and behavior has intrigued scholars for centuries. Although researchers have at times questioned the causal link between attitudes and behavior, most agree that, under certain circumstances, attitudes can accurately predict both behavioral intentions and behavior (Eagly & Chaiken, 1993; Cialdini, 2001). Subsequently, with an a priori assumption that attitudes influence behavior scholars have focused on revealing the variables that interact with the effects of attitudes on behavior. In other words, most of the research revolved around identifying situations and circumstances under which attitudes predict behavior.

As Sethi points out, despite decades of research, no single comprehensive theory exists to link attitudes with actions (2002). A review of some of the seminal theories and studies, however, provides a clear understanding of the cases when attitudes are likely to determine behavior. According to the literature, compatibility between attitudes and a given behavior strengthens the likelihood of engaging in the behavior (Cialdini, 2001). Moral obligations, perceived control, self-identity, attitude accessibility, and social norms are yet another set of variables that influence the attitude-behavior relationship. In fact, Fishbein and Ajzen's theory of

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reasoned action posits that attitudes toward a given behavior along with existing subjective (social) norms will correlate with the intentions to engage in the behavior (1975). Although criticized on the grounds of measurement biases (Budd & Spencer, 1986) and simplicity (Lynne & Rola, 1988; Boyd & Wandersman, 1991), the theory represents a useful base-line framework for examining attitude-behavior relations (Ross, McFarland, Conway, & Zanna, 1986). In an attempt to improve the theory's predictive power, Azjen extended the original model in his theory of planned behavior (Schifter & Ajzen, 1985). He introduced the idea of perceived behavioral control as an additional predictor of behavioral intent. Perceived control refers to one's perception of the difficulty of a given behavior. Although simplistic, the theories of reasoned action and planned behavior represent a useful starting point in studying the complex patterns behind attitude-behavior relations.

Unlike the theories of reasoned action and planned behavior, Fazio's model of attitude accessibility focuses on predicting behavior rather than behavioral intentions. In their seminal study of the 1984 presidential elections, Fazio and Williams showed that the more accessible the attitudes, the better attitudes predict human behavior (1986). The scholars demonstrated that the correlations between attitudes and behavior are particularly strong among those with highly accessible attitudes. In other words, the more easily or quickly one retrieves an attitude from his or her memory, the more strongly the attitude will influence his or her behavior. In his study of voting behavior, Fazio asked his participants to rate the 1984 candidates for U.S. President. After four months, on the day following the elections, the scholar asked the same respondents whether they had voted and for whom. Among those with highly accessible attitudes, 80% percent of the variance in voting behavior was explained by attitudes. Among those with less accessible attitudes, only 44% of the voting behavior was explained by attitudes. One of the limitations of the study is the use of an overly simple research design in exploring participants' voting

decisions. As with all sensitive questions, voting decisions reported in surveys might often be a function of social desirability.

Subsequent studies by Fazio and his associates showed that the effects of accessibility on the attitude-behavior relationship derive, in part, from selective exposure and attention (Fazio, 1989; Roskos-Ewoldsen & Fazio, 1992). Attitudes that are accessible influence exposure and attention, which in turn influence behavior.

Because of the complexity of human behavior, there is no complete understanding of when and how attitudes predict behavior. Our limited knowledge may be a function of a limited spectrum of methodological approaches in attitude-behavior research. Most of the studies aiming to explore the circumstances under which attitudes influence behavior employed experimental designs. Having said that, one can still legitimately posit that positive attitudes toward an advertisement and a brand will predict the intentions to buy the advertised product.

Cultural Relevance

Given the constant need for cost-effective advertisement placement, it is important to understand how the contextual interaction between the advertisement and its medium influences the effectiveness of the advertisement. With the vehicle source effect and the above evidence in support of the relationship between culture and communication outcomes, it seems valid to expect that consumers' ad and brand attitudes as well as purchase intent will depend not only on the evaluations of advertisements, but also on the evaluations of the Web sites that host the advertisements. In other words, the intensity of Web site evaluations that consumers "carry" over to the online advertisements will be a function of how well those advertisements fit with their hosting Web sites culturally. A culturally oriented Web site along with a culturally oriented ad will have an additional effect or will explain an additional variance in ad and brand attitudes that is not explained by the site's or the ad's cultural orientation alone. Shamdasani and his

colleagues demonstrated that the relevance between advertisement product category and vehicle content predicts advertising effectiveness (Shamdasani, Stanaland, & Tan, 2001). The latter was measured by variables such as ad and brand attitudes as well as click and purchase intentions. The following chapter synthesizes the literature and presents the hypotheses of the study.

CHAPTER 2: SYNTHESIS OF LITERATURE AND HYPOTHESES

As already mentioned, the aim of my study is to explore the role of culture in online persuasive communication. In particular, the study examines the effects of culturally congruent Web sites and online advertisements on attitudes, cognitions, and behavioral intentions.

Cultural congruence refers to the consistency of a message or a medium with the cultural backgrounds of the audiences to whom the message is directed. For example, for a group of collectivistic Internet users, culturally congruent Web sites and advertisements will be those that incorporate collectivistic appeals. Similarly, for individualistic Internet users, culturally congruent messages are those that have individualistic appeals.

Based on the review of literature, I formulated and tested seven hypotheses and one research question. The following section reveals the rationale for each of the hypotheses by highlighting the literature that led to the predictions.

Communication Accommodation Theory

The theory posits that communicators' accommodation to their audiences on speech, behavioral, and other fundamental dimensions will lead to positive communication outcomes. In particular, as the speech, attitudinal, and behavioral patterns of A become more similar to those of B, the probability that B will favorably and positively evaluate A goes up (Giles et al., 1991). Empirical research has supported this prediction by revealing that behavioral and speech similarity between a speaker and his or her audience is likely to increase the speaker's perceived attractiveness (Byrne, 1961; Mauer & Tindall, 1983; Zhang & Gelb, 1996), intelligibility, credibility (Triandis, 1960), as well as supportiveness (Berger & Bradac, 1982) in the eyes of the audience.

Viewing culturally congruent advertising and Web-based communication as a special case or form of accommodation, I posit that cultural appeals will produce positive

communication outcomes. Just like reducing linguistic, behavioral, and speech differences leads to interpersonal attraction and positive evaluations (Byrne, 1961; Giles, 1973), reducing intercultural differences between consumers and marketers through embedding cultural values into persuasive messages is expected to generate positive outcomes.

In particular:

H1 a: Among American participants, individualistic Web appeals will produce more positive attitudes toward the site than collectivistic appeals.

H1 b: Among Chinese participants, collectivistic Web appeals will produce more positive attitudes toward the site than individualistic appeals.

H2 a: Among American participants, individualistic Web appeals will produce greater perceived interactivity toward the site than collectivistic appeals.

H2 b: Among Chinese participants, collectivistic Web appeals will produce greater perceived interactivity toward the site than individualistic appeals.

Similarly:

H3 a: Among American participants, individualistic ad appeals will produce more positive ad attitudes than collectivistic appeals.

H3 b: Among Chinese participants, collectivistic ad appeals will produce more positive ad attitudes than individualistic appeals.

H4 a: Among American participants, individualistic ad appeals will produce more positive brand attitudes than collectivistic appeals.

H4 b: Among Chinese participants, collectivistic ad appeals will produce more positive brand attitudes than individualistic appeals.

As already mentioned, the complex nature of interactivity has resulted in substantial disagreements among researchers as to how to define the concept. Some view interactivity as a

perceptual category (McMillan, 2000; Bucy, 2004), while others treat it as a medium characteristic (Steuer, 1992). Furthermore, there are those that follow the contingency approach in conceptualizing interactivity (Sundar, 2003).

Under the contingency approach, interactivity refers to the interconnectedness of communication messages. The functional view posits that interactivity is a Web site's interface's capacity to enable an information exchange or a dialogue between the user and the site. According to the perceptual approach, interactivity is a function of individual perceptions. The same Web site might be interactive to some users and uninteractive to others.

As a user-centric study, my research is concerned with consumer reactions to culturally oriented Web sites and advertisements. In contrast to content-analytic interactivity studies, which focus on identifying the presence of interactive features on various Web sites, I examine interactivity as a function of consumer perceptions. Consequently, I follow the perception-based approach in conceptualizing and operationalizing interactivity.

Schema Theory

According to the schema theory, events and information that are moderately incongruent with personal schema attract greater attention, more extensive processing, and elaboration. Individual schema are shaped, in large part, by one's native culture. Consequently, Web sites that are not consistent with Internet users' cultural backgrounds will not fully correspond to the user's schema. As a result, culturally inconsistent Web sites will require greater cognitive effort to process. This, although irritating some of the users might enhance focused attention and produce high levels of concentration as evidenced by the schema research (Meyers-Levy & Tybout, 1989). A user will read and elaborate on schema-inconsistent online information more thoroughly than on schema-consistent information. There is no conclusive evidence, however, regarding the cognitive outcomes of exposure to schema-inconsistent online communication.

Although well tested in interpersonal communication research, the schema theory has not been adequately validated in cross-cultural and computer-mediated contexts. Consequently, a research question at this stage seems more appropriate than a hypothesis.

RQ: How does the congruence between the Web site's cultural orientation and the participants' cultural backgrounds relate to Web site cognitions?

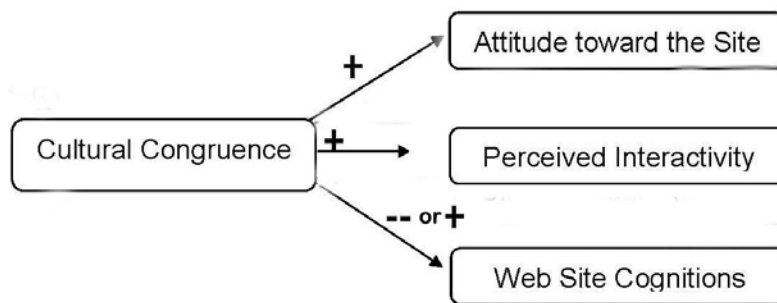The following figure illustrates the above hypotheses and the research question in more detail.

Figure 2. Cultural Congruence and Web Site Effects

Interaction Variables

Need for cognition (NFC) refers to the tendency to engage in and enjoy effortful thinking (Cacioppo & Petty, 1982). It represents the need to process information in an effortful way (Petty & Wegener, 1998). High-NFC individuals form their attitudes toward a message (or a product) based on the evaluations of central cues. Low-NFC individuals form their attitudes by relying on peripheral cues (Haugtvedt, Petty, & Cacioppo, 1992; Polyorat & Alden, 2005). Because cultural appeals are referred to as peripheral cues, low- (versus high-) NFC participants are more likely to react to culturally congruent marketing communication. Instead of carefully evaluating the arguments in the persuasive messages, low-NFC participants are expected to concentrate on and react to the cultural appeals. For low-NFC participants, congruity between their cultural background and the message's cultural orientation is likely to be a peripheral cue. Therefore, cultural appeals are expected to "matter" primarily for low-NFC consumers. Therefore:

H5: Need for cognition will influence negatively the relationship between cultural congruence and Web site evaluations.

Ethnic identity is the extent to which one retains or loses the values, norms, and other fundamental aspects of his or her native culture. Research has shown that ethnic identity influences the way consumers respond to targeting attempts (Geng, 1997; Webster, 1991; 1994; Whittler, 1991; Whittler & DiMeo, 1991). Research has also revealed that one's identification with his or her ethnic heritage influences information processing and decision-making (Donthu & Cherian, 1992; Green, 1999; Hirochman, 1981). In fact, Green's study demonstrated that African-American consumers with strong ethnic identities had more positive evaluations of advertisements that featured African-Americans in dominant positions, those with weak ethnic identity had more positive evaluations of advertisements that featured whites in dominant positions. Therefore, I posit that ethnic identity will influence the way Internet users react to cultural appeals in Web sites and advertisements. It will produce additional attitudinal effects that are not accounted by participants' cultural backgrounds and or cultural appeals alone.

In particular:

H6: Ethnic identity will influence positively the relationship between cultural congruence and Web site evaluations.

The following figure summarizes the above expectations.
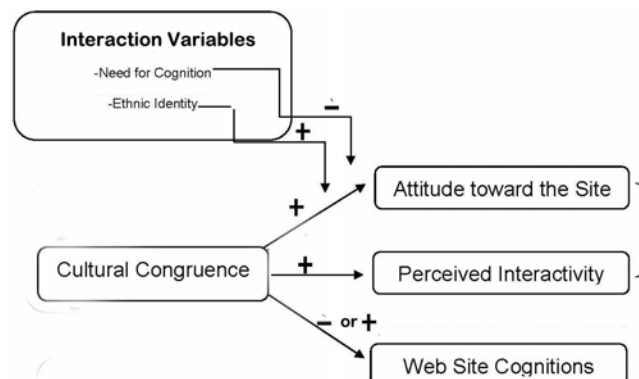
Figure 3. Interaction Variables and Cultural Congruence

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Vehicle Source Effect

Research has shown that different media or information "vehicles" have different effects on the persuasiveness of the same message ad (Aaker & Brown, 1972; Frieden, 1982; Winick, 1962). Aaker and Brown's study, for example, has revealed that quality claims are more effective in prestige magazines, because consumers associate the claims with the media environment where the claims are placed (the effect persisted independent of the quality or the logical merits of the claims). Advertisers delivering the same advertisements to the same audience can have different influence depending on the ad environment or the context in which the advertisements are placed (Chaiken & Stangor, 1987; Freiden, 1982). The above studies have shown that when a consumer likes the medium or the communication channel, he or she will automatically like the message that is transmitted through that channel. Accordingly, the current study expects its participants to "carry" their evaluations of the culturally congruent Web sites over to the advertisements placed on those sites. In other words, attitudes toward the site (whether positive or negative) should influence attitudes toward the ad.

H7 a: Attitudes toward the Web site will relate positively to ad attitudes.

H7 b: Web site perceived interactivity will relate positively to ad attitudes.

H7 c: Attitudes toward the Web site will relate positively to brand attitudes.

H7 d: Web site perceived interactivity will relate positively to brand attitudes.

Attitudes, Intentions, and Behavior

Based on Fazio's model of attitude accessibility, the more accessible the attitudes are, the better they predict human behavior (1986). Relationship between attitudes and behavior is particularly strong among those with highly accessible attitudes. In other words, the more easily or quickly one retrieves an attitude from his or her memory, the more strongly the attitude will influence his or her behavior.

As a result of the complexity of human behavior, there is no an exhaustive understanding of when and how attitudes predict behavior. Nevertheless, given the theoretical and empirical evidence in support of the attitude-behavior relationship, one can hypothesize that positive attitudes toward an advertisement and a brand will lead to greater intentions to buy the advertised product.

H8 a: Ad attitudes will relate positively to purchase intent.

H8 b: Brand attitudes will relate positively to purchase intent.

The following figure illustrates the above hypotheses.
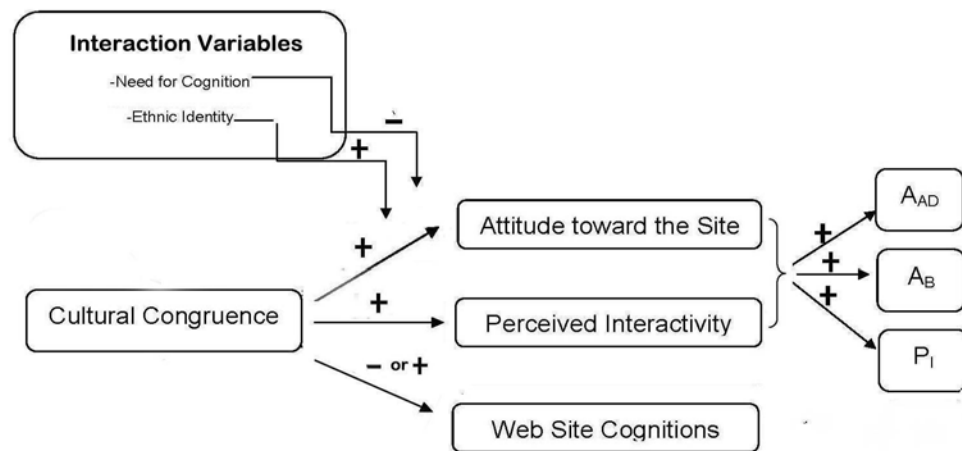
Note: A_{AD}=Attitude toward the ad, A_B=Attitude toward the brand, P_{PI}=Purchase intent, A_{AC}=Advertising cognitions.

Figure 4. Vehicle Source Effect

My study focuses on cognition and behavioral intent mainly because advertising models consistently relate information processing to advertising effectiveness (MacKenzie, Lutz, & Belch 1986). As for the purchase intent, many view intentions to behave as some of the most accurate estimates of future behavior available to marketers (KalWani & Silk, 1982).

Cultural Relevance

Based on the vehicle source effect (Aaker & Brown, 1972; Frieden, 1982), one can expect that consumers' ad and brand attitudes as well as purchase intent will depend not only on the evaluations of the advertisements and brands, but also on the Web sites that host the

advertisements. In other words, the intensity of advertising and brand evaluations will be a function of how well those advertisements fit with their hosting Web sites culturally. A culturally oriented Web site and a culturally oriented ad will have an additional effect or will explain an additional variance in ad and brand attitudes that is not explained by the site's or the ad's cultural orientation alone.

H9 a: Cultural relevance between the advertisement and its hosting Web site will interact positively with the effects of cultural congruence on attitudes toward the ad.

H9 b: Cultural relevance between the advertisement and its hosting Web site will interact positively with the effects of cultural congrmuence on attitudes toward the brand.

H9 c: Cultural relevance between the advertisement and its hosting Web site will interact positively with the effects of cultural congruence on purchase intent.

Note: A_{AD}=Attitude toward the ad, A_B=Attitude toward the brand, P_{PI}=Purchase intent, A_{AC}=Advertising cognitions.

Figure 5. Cultural Relevance and Consumer Responses

CHAPTER 3: METHODOLOGY

Participants

In this study, I examined the effectiveness of culturally congruent Web sites and online advertisements. To have a particularly rigorous test of the cultural congruence effect, I manipulated the experimental conditions in both the American and the Chinese samples of participants. I recruited my participants from a pool of students and faculty. The recruitment involved distribution of an online experiment link to listservs of American and Chinese students and faculty. The Chinese listservs included e-mail addresses of the members of a Chinese Student Association in a large land-grant university. It also included members of the Association for Chinese Communication Studies, an affiliate of the National Communication Association. The American listservs included e-mail addresses of students and faculty in communication and mass communication programs in the same land-grant institution.

The compensation for participation in the study included an entry to a drawing of 15 Wal-Mart gift cards. After completing the online questionnaire, those who wished to participate in the drawing entered their e-mail addresses. They could do so only after answering all required questions in the study. Offering to enter the drawing after filling in the questionnaire ensured a greater rate of survey completion. When data collection was over, I identified the winners of the drawing by randomly selecting 15 e-mails with a random number generator.

As many would argue, the use of a convenience sample is associated with selection bias. With a convenience sample, little is known about the quantities of error the sample contains (Gujarati, 1995; Kerlinger, 1986). Because the study focuses on previously underexplored relationships, the use of a convenience sample to check for preliminary support of hypotheses and to collect initial data seems appropriate. Besides, college students are known for active Internet shopping, a lot of them making at least one online purchase or transaction each week.

The latter characteristic of the sample fits well the overall purpose of the study that focuses on online consumers. Furthermore, some believe that student samples may yield greater predictive validity than samples from general population (Danaher & Mullarkey, 2003).

Design and Procedure

The experimental stimuli of my study consisted of a dental care Web site and an electronic toothbrush advertisement. The rationale behind choosing a low involvement personal care product comes from the evidence that attitudinal and cognitive effects of peripheral message features, such as cultural appeals, are particularly salient when consumers do not engage in effortful information processing, a kind of thinking that is triggered when individuals are exposed to high involvement products. (Cacioppo & Petty, 1982; Cacioppo, Petty, Chuan, & Rodriguez, 1986). In fact, Han and Shavitt demonstrated that the effects of culturally congruent advertising themes were more vivid in promoting low-involvement products, such as deodorants and detergents, than high-involvement products, such as luxury items (1994).

As already mentioned, I investigated the main effect of Web and ad cultural appeals along with their interaction on Internet advertising effectiveness. My study had three independent variables: Country, Web site cultural appeals, and advertising cultural appeals. Accordingly, I used a 2(Participant Country: US vs. China) X 2(Web site cultural appeal: collectivistic vs. individualistic) X 2(Ad cultural appeal: collectivistic vs. individualistic) between subjects factorial design to test the study's hypotheses that culturally congruent Web and Ad appeals produce persuasive outcomes. As a result, I had eight experimental conditions (Table 1).

I analyzed the data for my study using a three-way analysis of variance (ANOVA) and an analysis of covariance (ANCOVA) via the *Statistical Package for the Social Sciences* (SPSS) 17.

Participants started the experiment by first reading the online consent form. After confirming that they meet the study's age requirement, they were randomly assigned to one of the four conditions. The random assignment of participants was possible due to a javascript function in the HTML source of the consent form.

Table 1. Experimental Conditions

Country	Web Appeal	Ad Appeal
China	Collectivistic	Collectivistic
China	Collectivistic	Individualistic
China	Individualistic	Individualistic
China	Individualistic	Collectivistic
US	Individualistic	Individualistic
US	Individualistic	Collectivistic
US	Collectivistic	Collectivistic
US	Collectivistic	Individualistic

I developed the study's questionnaire in accordance with the basic questionnaire design and layout rules (McBurney, 1994; Wimmer & Dominick, 2002). I highlighted all procedural instructions. To ensure that the participants have a well-sustained ethno-cultural identity, I placed individual measures of collectivism and individualism in the beginning of the questionnaire, before exposing participants to the stimuli.

Stimuli

I developed culturally congruent Web sites and advertisements using the existing scales of cultural dimensions (e.g., Singh & Baack, 2004; Singh & Matsuo, 2004; Singh, Zhao, & Hu, 2003; 2004). The scales defined cultural values in terms of specific Web design features. Scholars used these scales to analyze the cultural adaptation of and structural differences between U.S. and foreign companies' Web sites (Albers-Miller & Gelb, 1996; Fock, 2000; Singh, 2003; Singh, Furrer, & Massimiliano, 2004; Vishwanath, 2003).

With the above scales, I designed two Web sites (i.e., collectivistic and individualistic) and two advertisements (i.e., collectivistic and individualistic). Since the study focused on the exposure effects, the hyperlinks on the advertisements and their hosting Web sites were inactive.

To maintain consistency and minimize potential confounds, the balance between verbal and visual content was practically the same across all the sites and advertisements. Developing experimental Web sites and advertisements, instead of using existing ones eliminated a number of possible confounds, including brand and/or Web site familiarity.

Once the Web sites and advertisements were ready, I pre-tested them with a survey and a focus group. Those who took part in the pre-tests did not participate in the main study. The focus group had seven participants. Five of the participants were mass communication doctoral students. The remaining two were master's students majoring in environmental studies. I recruited the focus group participants through a social networking Web site. I sent out a message to the list of my online friends asking for help with collecting qualitative data. The first seven who replied to my message were invited to take part in the focus group. Appendix A has a copy of the focus group protocol.

I started the focus group discussion by welcoming the participants to the session. After carefully examining the Web sites and advertisements, focus group participants shared their opinions on the overall design, structure, and readability of the stimuli. Next, I pre-tested the instrument of the study, by asking the participants to answer all the scale items as open-ended questions. For example, instead of asking participants to rate the strength of their ethnic identity or need for cognition, I asked them to elaborate on what those two constructs meant to them. Similarly, instead of taking individual measures of collectivism and individualism, I asked focus group participants to list all the themes associated with the two cultural dimensions. I then asked them to list specific themes and design elements that would express the aforementioned cultural dimensions in terms of computer-mediated communication features (e.g., chat rooms, message boards, etc.). I used the focus group data to improve the overall conceptual specificity of my scale items. As a result of the focus group, I rephrased certain boundaries of response categories.

The pre-test also led to the inclusion of additional instructions into the instrument.

Furthermore, I used the focus group to pre-test the experimental stimuli. I asked the participants to closely examine the experimental Web sites and advertisements. I then asked them to assess the extent to which the stimuli reflected the collectivism and individualism cultural dimensions. All of the participants of the focus group were able to correctly identify the cultural orientation of the stimuli. Some, however, suggested strengthening the cultural presence on the sites and the advertisements by including additional culture-specific features and themes. Also, while some of the participants viewed the cultural orientation of the stimuli as irrelevant to the dental care products the stimuli promoted, others saw the cultural themes as an integral part of the Web sites' corporate image. Based on the focus group data, I strengthened both the collectivistic and the individualistic appeals in my stimuli by adding additional cultural themes (e.g., slogans, visuals, etc.) to the advertisements and their hosting Web sites.

In addition to the focus group, I conducted a survey as part of my pretest to check the stimuli for inter-coder reliability. The sample of participants consisted of 36 undergraduate students. The students were enrolled in an introductory communication class at the time of taking the survey. As the following table demonstrates, most of the participants of the survey identified the stimuli as intended (i.e., collectivistic as collectivistic and individualistic as individualistic). Given the high percentage of correct identification, manipulation of the Web and ad appeals appeared to work effectively.

Table 2. Manipulation Check Results

Stimuli	Collectivistic	Individualistic	Neutral	Total
Collectivistic Web	**33 (91.67%)**	3 (8.33%)	0 (0%)	36
Collectivistic Ad	**31 (86.11)**	1 (2.77%)	4 (11.12%)	36
Individualistic Web	2 (5.55%)	**28 (77.77%)**	6 (16.68%)	36
Individualistic Ad	2 (5.55%)	**26 (72.22%)**	8(22.23%)	36

The collectivistic advertisement and its hosting Web site emphasized features, such as user forums, newsletters, message boards, and other elements that emphasize group membership,

social interaction, and many-to-many forms of communication. Although inactive, the hyperlink underneath the collectivistic ad invited participants to product oriented online forums and discussion groups, where they could interact with other consumers on the features and usability of the advertised product. The individualistic Web site, on the other hand, emphasized search engines as well as product customization and personalization features. Individualistic features, while enabling user privacy and content demassification (i.e., narrowcasting), emphasized uniqueness, independence, self-reliance, and other characteristics of individualistic cultures. Appendix B has a copy of the stimuli.

Instrument and Measures

The survey instrument included a total of 96 items. A copy of the questionnaire is attached at the Appendix C. Part I had 18 questions. The first two questions asked respondents to indicate their country of origin and whether or not they lived in the United States at the time of taking the survey. These questions were followed by one multiple response question where participants had to select the answer that best represented the amount of time they had spent in the United States. The remaining 14 questions in part I assessed respondents' level of collectivism and individualism with 7-point Likert-type scales ranging from "strongly disagree" to "strongly agree." The questions measuring collectivism and individualism came from Chen and West's measure of cultural dimensions (2008).

The measure consisted of two subscales: one for collectivism and one for individualism. The facets of the individualistic subscale included the following: independence, uniqueness, and competitiveness. The components of the collectivistic subscale included the following: sharing of positive and negative outcomes with family and friends as well as consideration of the implications of one's decisions and actions on others.

Chen and West's measure is different from previous scales in a number of ways. It

provides two distinct operationalizations for collectivism and individualism instead of measuring them as an undifferentiated construct. As a result, unlike previous measures, it does not limit the research by assuming that one can be either collectivistic or individualistic (but not both at the same time). Going beyond the dichotomous view of the individualism and collectivism dimensions makes the study of individual cultural backgrounds more complex.

Part II of the instrument included the stimuli (Appendix B). It also included 21 questions with 7-point Likert-type scales to assess the attitudinal and behavioral effects of the stimuli. The first four questions evaluated participants' overall attitudes toward the Web site. The questions came from Chen and Wells' scale (1999). The (Web) attitudinal scale went beyond bipolar rating scales and "evaluative" factors (e.g., rate the site from "bad" to "good"). Chen and Wells developed their measure by first asking a sample of experienced Internet users how they would describe a "bad" and a "good" Web site. After the initial pool of items was collected, the scholars measured the reliability of items through computing interjudge agreement correlations on 120 Web sites. Next, the study factor analyzed the mean scores that each of the 120 websites received on each of the initial items. Two follow-up studies revealed that the scale was reliable and robust across vast changes in Web sites, respondents, and methods of administration.

The following six questions in part II of the instrument assessed the level of perceived interactivity among respondents. I took the questions from Wu's measure of perceived interactivity (2000). The scale offers two main dimensions that are central to interactivity: direction of communication and user control. Wu specified the domain of interactivity and generated the initial pool of items from three main sources: interactivity literature, in- depth interviews with 7 participants who create and teach interactive communication, and focus groups. The initial data collection produced 98 unique words and phrases, which were reduced to18 core concepts. Next, Wu developed two Web sites to evaluate the initial set of items and

determine how well the items grouped together. After a series of exploratory factor analyses with a direct obliminal rotation, two main factors emerged. The resulting scale yielded a sufficiently high level of reliability. Wu tested the predictive validity of his scale with attitudes toward the site.

The following four and three questions of part II evaluated ad and brand attitudes respectively. The remaining four questions measured respondents' intentions to buy the advertised product. All of these scales have been used in a number of empirical studies including Zhang and Gelb's cross-national analysis of cultural appeals (1996).

Part III of the instrument included three open-ended, one multiple response, and 22 7-point Likert-type questions. The first two open-ended questions asked respondents to list as many thoughts as possible in response to experimental Web sites and advertisements. The differences in the number of thoughts represented various levels of elaboration intensity (Petty & Cacioppo, 1986; Priester & Petty, 1995; 2003). Participants had the following prompts: "Please list as many thoughts as possible that came to mind while looking at the Web site" and "Please list as many thoughts as possible that came to mind while looking at the advertisement."

The following two questions of part III asked respondents' age and gender. The final 22 questions were the remaining part of the collectivism and individualism subscales (from part I).

Part IV contained the interaction variables of this study: ethnic identity and need for cognition. I assessed the variables using 12 and 18 7-pont Likert-type questions respectively. The questions for evaluating need for cognition derived from Cacioppo and Petty's measure (1982). Cacioppo and Petty developed and validated one of the most frequently used personality measures in four steps. First, they compiled an initial pool of items. They administered the pool to 96 faculty members (high-need-for-cognition group) and assembly line workers (low-need-for-cognition group). The authors conducted a series of factor analyses using the initial data to

identify the main latent variables. In the second stage, Cacioppo and Petty administered their preliminary scale to 419 undergraduate students to further validate the factor structure. The factor structure was replicated. In the third and fourth stages, another group of undergraduate students completed the need for cognition scale along with the Marlowe-Crowne social desirability measure and a dogmatism scale. The results indicated that need for cognition had sufficiently high level of predictive validity.

The questions for ethnic identity came from Phinney's multigroup ethnic identity scale (1992). Grounded in the theories of identity formation, the ethnic identity scale has four general aspects of ethnic identity: positive ethnic attitudes and sense of belonging, ethnic identity of achievement, ethnic behaviors or activities, and other-group orientation. Scholars have tested the scale in several cross-cultural advertising studies. As an etic measure, it has continuously shown high levels of reliability, usually with alphas over 80% across a broad range of ages and ethnic groups.

The following chapter reveals the findings of the study. After providing a demographic makeup of the sample, the chapter reports the reliability coefficients of the study's measures. The chapter concludes by presenting the outcomes of the tests of hypotheses.

CHAPTER 4: RESULTS

Preliminary Analyses

Data Screening

Before testing the hypotheses of the study, I thoroughly screened the data to check whether they were entered into the computer accurately. Next, I recoded all the reverse-scored items. In addition, I screened the overall dataset for issues, such as outliers and out-of-range values. The ranges between maximum and minimum values of most cases were within the acceptable range of two-three standard deviations from the mean. Furthermore, the data met the linearity assumption, thus eliminating the need for functional transformations (e.g., quadratic, log) to linearize the observed relationships.

Each of the four conditions of the study had a roughly equal distribution of participants. In particular, the Collectivistic Web Site-Collectivistic Ad condition had 75 (28%) participants. The Individualistic Web Site-Individualistic Ad condition had 65 (24.3%) participants. The number of participants in the Individualistic Web Site-Collectivistic Ad and Collectivistic Web Site-Individualistic was 53 (19.8) and 75 (28%) respectively.

Constructing the Measures

I tested the reliability of all the measures with a Cronbach's alpha reliability estimate. The individualism and collectivism scales yielded sufficiently high coefficients of .85 and .83 respectively. Attitude toward the Web and Web site perceived interactivity had reliability estimates of .91 and .83 respectively. Ad and brand attitudes had $\alpha=.72$ and $\alpha=.71$ coefficients. The reliability of the purchase intent scale was .82. Strength of ethnic identity and need for cognition produced coefficients of .88 and .91 respectively.

Since the items of the above scales were internally consistent and the scales had fairly high reliability estimates, I combined individual scale items into composite indices. As a result, I

used the aggregate scores of scale items for all the tests. For example, I measured ad and brand attitudes by combining the scores of individual items that represented the two constructs. Furthermore, for testing some of my hypotheses, I divided my independent variables at their midpoint into "high" and "low" categories. For example, those whose need for cognition score was higher than the average were categorized into the "high" category of need for cognition. Similarly, I categorized those with lower than average scores into the "low" NFC level.

Collectivism-Individualism Check

To ensure that the participants had a well-sustained ethno-cultural identity, I took individual measures of collectivism and individualism. Since the collectivism and individualism dimensions had a significant negative correlation (r=-.68), those who scored high on one dimension scored low on the other. As a result, the two dimensions turned out to be a continuum rather than two separate constructs. This allowed me to reverse code all the items of the individualism scale to combine it with the collectivism scale (i.e., high scores on individualism were recoded into low scores on collectivism). The combined measure ranged from individualism to collectivism. I used the measure to investigate the cultural backgrounds of my participants. The Chinese participants' score on the measure leaned toward the collectivism end of the continuum, while the Americans' score leaned toward the individualism end of the continuum. The difference between the two samples on the individualism-collectivism dimension turned out statistically significant (t(246)=16, p=.001).

Descriptive Findings

As already mentioned, I recruited the sample of my study from listservs of American and Chinese students and faculty. Of a total of 704 listserv members invited to participate in the study, 279 completed the survey representing a response rate of 39.63%. Of those 279, 11 respondents did not complete enough of the survey to provide usable data. Thus, with a

completion rate of 96.05%, the final sample included 268 participants: 128 (47.8%) Americans

and 140 (52.2%) Chinese with an average age of 25.3 (SD=5.3) and 28.2 (SD=4.4) respectively.

The sample was represented by a wide range of ages. The youngest participant was 18.8 years

old and the oldest was 48.1 years old. The sample had 127 (50.4%) males and 125 (49.6%)

females with an average age of 27.5 (SD=5.4) and 25. 9 (SD=4.6) respectively.

American Sample Younger and Has Slightly More Females

With an average age of 25.3 (SD=5.3), the American sample had 53 (43.1%) males and

70 (56.9%) females. Nineteen participants (15.8%) were under 21 years old. The majority of

participants (65; 54.2%) were between 21 and 27 years old. Twenty seven participants (22.5%)

were between the ages 27 and 34. Only nine participants (7.5%) were above the age 34.

Chinese Sample Older and Has Slightly More Males

With an average age of 28.2, Chinese participants turned out slightly older than

Americans. The sample consisted of 74 (57.4%) males and 55 (42.6%) females. Among Chinese

participants, only four individuals (3.5%) were under 21 years old. Unlike the American

participants, most of the Chinese (59; 51.8%) were between 27 and 34 years old. Forty three

participants (37.7%) were between the ages 21 and 27. Only eight respondents (7%) were above

34.

Males Older than Females

The average age of male participants was 27.5 (SD=5.4). Female participants were

noticeably younger (25.9, SD=4.6). Most of the males (49; 43.4%) were between the ages 21

and 27. Only seven male participants (6.2%) were under 21. The number of females under 21

years old was a substantially more (16; 13.2%). Similar to men, most of the females (59; 48.8%)

were between 21 and 27 years old. Furthermore, males had more participants between 27 and 34

than did females (46; 40.7% versus 40; 33.1%). While there were 11 males (9.7%) above 34, the number of females aged 34 and up was only six (5%).

Almost all Participants Lived the United States

Most of the participants resided in the United States at the time of participating in the study. All American participants have been living in the United States when taking the experiment. Similarly, almost 99% of all Chinese participants resided in the United States at the time of partaking in the study. None of the Chinese participants, however, was born in the United States. The majority of Chinese respondents have been living in the U.S. between three and seven years (52.1%). Ten percent have been living in the United States for most than seven years and 6.4%-less than a year. It is important to note that the length of time spent in the United States did not influence participants' reactions toward culturally oriented Web sites and advertisements. The results of a two-way ANOVA suggested that all Chinese participants, regardless of the amount of time they had lived in the United States, had uniform attitudinal scores in response to cultural Web and ad appeals.

Tests of Hypotheses

H1 a: Among American participants, individualistic Web appeals will produce more positive attitudes toward the site than collectivistic appeals.

H1 b: Among Chinese participants, collectivistic Web appeals will produce more positive attitudes toward the site than individualistic appeals.

H2 a: Among American participants, individualistic Web appeals will produce greater perceived interactivity toward the site than collectivistic appeals.

H2 b: Among Chinese participants, collectivistic Web appeals will produce greater perceived interactivity toward the site than individualistic appeals.

The hypothesis predicted that culturally congruent Web appeals would lead to greater perceived interactivity and positive attitudes toward the site. To test the first two hypotheses, I ran a three-way analysis of variance. The analysis assessed the main effect of the two types of cultural appeals, collectivistic and individualistic, on attitudinal and perceptual measures in both the American and Chinese samples of participants. Among American participants, individualistic Web appeals produced more positive Web attitudes (M=18.8) than collectivistic appeals (M=12.4, F (1, 256) = 99.2, p < .01). Furthermore, individualistic Web appeals produced more positive Web attitudes among American participants (M=18.8) than among the Chinese participants of the study (M=13.9). Thus, H1a was supported. The ANOVA results also revealed that among Chinese participants, collectivistic Web appeals produced more positive Web attitudes (M=20.6) than individualistic appeals (M=13.9). In addition, collectivistic Web appeals produced more positive Web attitudes among Chinese participants (M=20.6) than among American participants (M=12.4). Therefore, H1b was also supported.

The second set of the hypotheses predicted that cultural appeals would lead to greater perceived interactivity of the site. The results of a three-way analysis of variance showed that among American participants, individualistic Web appeals produced greater perceived interactivity toward the site (M=28.9) than collectivistic appeals (M=19.6, F (1, 256) = 87.3, p < .01). Moreover, American participants reported greater perceived interactivity in response to individualistic appeals (M=28.9) than did the Chinese participants of the study (M=20.9). Thus, H2a was supported. The results also demonstrated that among Chinese participants, collectivistic Web appeals led to greater perceived interactivity of the site (M=25.9) than individualistic appeals (M=20.9). Furthermore, Chinese participants had greater perceived interactivity in response to collectivistic Web appeals (M=25.9) than did the American participants of the study (M=19.6). Therefore, the second hypothesis was completely supported.

H3 a: Among American participants, individualistic ad appeals will produce more positive ad attitudes than collectivistic appeals.

H3 b: Among Chinese participants, collectivistic ad appeals will produce more positive ad attitudes than individualistic appeals.

H4 a: Among American participants, individualistic ad appeals will produce more positive brand attitudes than collectivistic appeals.

H4 b: Among Chinese participants, collectivistic ad appeals will produce more positive brand attitudes than individualistic appeals.

According to the third and fourth hypotheses culturally congruent advertising appeals would lead to positive evaluations of advertisements. To test the hypotheses, I conducted a three-way ANOVA and examined the mean differences in ad and brand attitudes across collectivistic and individualistic ad appeals as well as the two participant samples. Among American participants, individualistic ad appeals led to more positive attitudes toward the ad (M=19) than collectivistic appeals (M=17.2, F (1, 256) = 48.6, p < .01). Furthermore, American participants reported significantly more positive ad attitudes in response to individualistic appeals (M=19) than did the Chinese participants of the study (M=17.9). H4a, therefore, was supported. The results of a three-way ANOVA also revealed that among Chinese participants, collectivistic ad appeals triggered more positive ad attitudes (M=21.6) than individualistic appeals (M=17.9). Moreover, Chinese participants reacted more positively to collectivistic ad appeals (M=21.6) than did their American counterparts (M=17.2).

The fourth hypothesis of this study predicted that culturally congruent advertisements would lead to positive brand evaluations. The results of a three-way ANOVA demonstrated that among American participants, individualistic ad appeals produced more positive brand attitudes (M=13.5) than collectivistic appeals (M=11.6, F (1, 124) = 18.2, p < .01). In addition, American

54

participants had more positive brand attitudes in response to individualistic appeals (M=13.5) than did the Chinese participants of the study (M=12.6). Consequently, H4a was supported. The ANOVA results also showed that among Chinese participants, collectivistic ad appeals led to more positive brand attitudes (M=14.9) than individualistic appeals (M=12.6). Moreover, Chinese participants reported significantly more positive brand attitudes in response to collectivistic appeals (M=14.9) than did the American participants of the study (M=11.6). Thus, the second hypothesis was entirely supported[1].

RQ: How does the congruence between the Web site's cultural orientation and the participants' cultural backgrounds relate to Web site cognitions?

My research question examined how the congruence between a Web site's cultural orientation and a participant's cultural background related to Web cognitions, measured by elaboration. The level of elaboration referred to the number of thoughts generated in response to a Web site. To answer the research question, I ran an independent-samples *t*-test and compared the mean scores of elaboration across the two types of Web appeal in each of the samples. The results of the *t*-tests did not reveal any significant mean differences across schema-consistent and schema-inconsistent Web appeals.

H5: Need for cognition will influence negatively the relationship between cultural congruence and Web site evaluations.

The results of a three-way ANCOVA (with the interaction variables as covariates) did not reveal any significant mean differences in Web attitudes and perceptions for various levels of need for cognition. Contrary to my expectation, need for cognition did not influence the effects of Web appeals on Web attitudes and perceived interactivity. Thus, hypothesis 5 was not supported.

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[1] It should be noted that the Levene's test of equality of error variances was violated in testing this hypothesis.

H6: Ethnic identity will influence positively the relationship between cultural congruence and Web site evaluations.

According to the sixth hypothesis, participants with strong ethnic identities would have particularly positive reactions toward culturally congruent Web sites. The hypothesis posited that ethnic identity would interact with the main effect of Web cultural appeals on Web attitudes and perceived interactivity. A three-way ANCOVA did not reveal any significant mean differences. Neither Web attitudes nor perceived interactivity changed significantly as a result of changes in the level of ethnic identity. Therefore, hypothesis 6 was not supported.

H7 a: Attitudes toward the Web site will relate positively to ad attitudes.

H7 b: Web site perceived interactivity will relate positively to ad attitudes.

H7 c: Attitudes toward the Web site will relate positively to brand attitudes.

H7 d: Web site perceived interactivity will relate positively to brand attitudes.

The seventh hypothesis of the study predicted that positive Web site evaluations would influence the evaluations of advertisements and brands placed on the sites. Web evaluations include attitudes toward the Web and perceived interactivity. Hypothesis 7a posited that Web attitudes would determine attitudes toward the ad. The results of a bivariate (Pearson) correlation revealed that participants with higher levels of positive Web attitudes reported more favorable attitudes toward the ad than those with lower levels of positive Web attitudes. As Web attitudes went up, so did the attitudes toward the ad ($r=.52, p < .01$). Thus, 7a was supported.

Hypothesis 7b posited that the perceived interactivity of a Web site would lead to positive ad attitudes. The results of a bivariate correlation showed that those with higher levels of perceived interactivity reported more favorable ad attitudes ($r=.47, p < .01$). Therefore, 7b was also supported.

According to hypothesis 7c, Web attitudes would predict brand attitudes. The Pearson correlation coefficient indicated a positive relationship between Web and brand attitudes. An increase in Web attitudes was associated with an increase in brand attitudes ($r=.49$, $p < .01$). Consequently, 7c was supported.

Finally, according to 7d, Web site perceived interactivity would relate positively to brand attitudes. Similar to the above analyses, the results of a bivariate correlation revealed a positive relationship between Web perceived interactivity and brand attitudes. An increase in perceived interactivity was positively associated with an increase in brand attitudes ($r=.43$, $p < .01$). Therefore, the seventh hypothesis of this study was entirely supported.

H8 a: Ad attitudes will relate positively to purchase intent.

H8 b: Brand attitudes will relate positively to purchase intent.

According to the results of a bivariate correlation, attitudes toward the ad were positively correlated with purchase intent. Positive ad attitudes were associated with a greater likelihood to purchase the advertised product ($r=.63$, $p < .01$). Thus, H8a was supported. Similar to ad attitudes, attitudes toward the brand were positively associated with purchase intentions. Those who had more positive brand attitudes, were more likely to purchase the product than those with less positive brand attitudes ($r=.60$, $p < .01$). Therefore, hypothesis eight was completely supported.

H9 a: Cultural relevance between the advertisement and its hosting Web site will interact positively with the effects of cultural congruence on attitudes toward the ad.

H9 b: Cultural relevance between the advertisement and its hosting Web site will interact positively with the effects of cultural congruence on attitudes toward the brand.

H9 c: Cultural relevance between the advertisement and its hosting Web site will interact positively with the effects of cultural congruence on purchase intent.

The ninth hypothesis predicted that the relevance between the advertisement and its hosting Web site would interact positively with the effects of cultural congruence on ad and brand attitudes and purchase intent. The hypothesis suggests that a culturally oriented Web site together with a culturally oriented advertisement will have an additional effect that is not accounted for by the site's or the ad's cultural orientation alone. The following graphs (Figures 6, 7, 8, and 9) illustrate the interaction affect of Web and ad appeals for the American sample of participants.
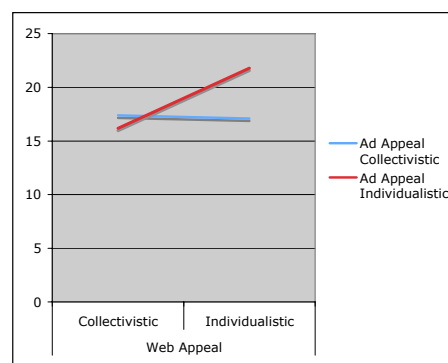
Figure 6. Attitudes toward the Ad across Web and Ad Appeals in the American Sample of Participants

As the sixth graph illustrates, attitudes reach their highest point when individualistic Web appeals are combined with individualistic ad appeals. An individualistic Web site and an individualistic ad have a greater effect on ad attitudes (M=21.8) than an individualistic Web site (M=19.4) or an individualistic ad (M=19) alone. The ANOVA results confirmed the presence of interaction between Web and ad appeals, $F (1, 124) = 31.7$, $p < .01$, partial $\eta^2 = .2$ (Table 3). Furthermore, *Tukey's HSD* post-hoc tests revealed that the attitudinal differences between individualistic and collectivistic Web sites were bigger when the advertisement was individualistic ($\Delta=5.6$, $F (1, 127)=62$, $p < .01$) than when the advertisement was collectivistic ($\Delta=.34$). The difference between the increments of change (Δ) in ad attitudes indicates that an individualistic Web site was particularly effective in creating positive ad attitudes when it carried an individualistic ad. Similarly, an individualistic ad produced particularly strong positive

attitudes when placed on an individualistic Web site (Δ=4.7, F (1, 127)=39.5, $p < .01$). Thus, hypothesis 9a was supported in the American sample.

Hypothesis 9b predicted that Web and ad appeals would have an interaction effect on brand attitudes. The graph below (Figure 7) shows that individualistic Web appeals together with individualistic ad appeals produce stronger brand attitudes (M=15.8) than individualistic Web appeals (M=13.9) or individualistic ad appeals (M=13.5) alone. The ANOVA results for the interaction term are as follows, F (1, 124) = 16.5, $p < .01$, partial η^2= .1. In addition, *Tukey's HSD* post-hoc tests showed that the difference in brand attitudes in response to individualistic versus collectivistic Web appeals was more salient when the ad was individualistic (Δ=4.4, F (1, 127)=55.1, $p < .01$) than when the ad was collectivistic (Δ=.8). An individualistic Web site produced particularly strong brand attitudes when it featured an individualistic ad. Likewise, an individualistic ad produced particularly strong brand attitudes when placed on an individualistic Web site (Δ=3.7, F (1, 127)=33.5, $p < .01$). Hypothesis 9b was also supported.
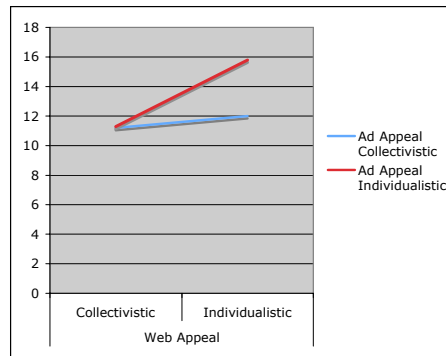
Figure 7. Attitudes toward the Brand across Web and Ad Appeals in the American Sample of Participants

Unlike hypotheses 9a and 9b, hypothesis 9c was not supported. The results of a two-way ANOVA did not reveal a significant interaction effect of Web and ad attitudes on purchase intent.

To validate the above findings and further examine the effects of relevance between culturally congruent Web and ad appeals, I ran each of the above tests in the Chinese sample of participants. Similar to American participants, Chinese participants had the strongest ad and brand attitudes when Web and ad appeals were culturally relevant (Figure 8). ANOVA results confirmed that collectivistic Web appeals together with collectivistic ad appeals led to stronger ad attitudes (M=23.5) than collectivistic Web appeals (M=20.8) or collectivistic ad appeals alone (M=21.6, $F(1, 132) = 8.6$, $p < .01$, partial $\eta^2 = .06$) (Table 4). Moreover, the attitudinal effects of collectivistic Web appeals were the strongest when the Web site had a collectivistic ad ($\Delta=3.8$, $F(1, 142)=19.7$, $p < .01$). Similarly, a collectivistic ad produced more ad attitudes when placed on a collectivistic Web site ($\Delta=5.3$, $F(1, 142)=55.6$, $p < .01$) than when paced on an individualistic site ($\Delta=1.9$). Therefore, hypothesis 7a was supported in the Chinese sample of participants as well.
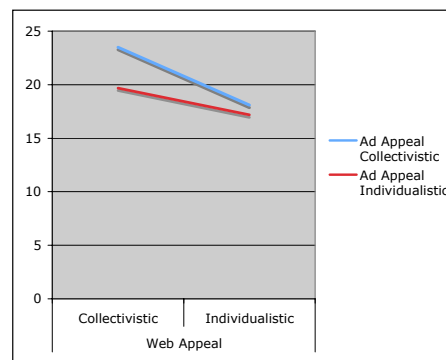
Figure 8. Attitudes toward the Ad across Web and Ad Appeals in the Chinese Sample of Participants

Similar to ad attitudes, brand attitudes reached their highest point when collectivistic Web appeals were combined with collectivistic ad appeals (Figure 9). A collectivistic Web site along with a collectivistic ad triggered stronger brand attitudes among Chinese participants (M=15.9) than a collectivistic site (M=14.3) or a collectivistic ad (M=14.9) alone.

18
16
14
12
10
8
6
4
2
0

Ad Appeal Collectivistic
Ad Appeal Individualistic

Collectivistic   Individualistic
Web Appeal
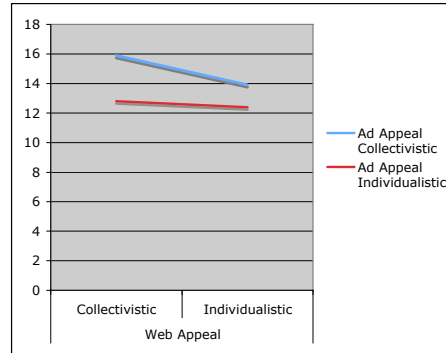
Figure 9. Attitudes toward the brand across Web and Ad Appeals in the Chinese Sample of Participants

The interaction effects for brand attitudes were, however, only marginally significant (F (1, 132) = 3.6, p = .06, partial η^2= .02). The results of *Tukey's HSD* post-hoc tests revealed that the effects of collectivistic Web appeals on brand attitudes were stronger in the collectivistic ad condition (Δ=2, F (1, 142)=94, p < .01) than in the individualistic ad condition (Δ=.3). In addition, a collectivistic ad produced particularly strong brand attitudes when featured on a collectivistic Web site (Δ=3.1, F (1, 142)=32.1, p < .01).

Consistent with the findings from the American sample of participants, the analysis of variance in the Chinese sample demonstrated no evidence to support hypothesis 9c. Web and ad appeals did not have an interaction effect on purchase intent.

The following chapter provides a summary of findings along with their conceptual and empirical interpretations. The chapter addresses the significance of results in the context of theory building and testing. It then highlights the major industry implications of this research.

CHAPTER 5: DISCUSSION

Summary and Interpretation of Results

One of the most important findings of my study is that cultural appeals in online advertising trigger significant attitudinal effects. Hypotheses 1, 2, 3, and 4 predicted that cultural appeals would produce positive Web site and advertising evaluations. Consistent with these hypotheses, the results of the study revealed that Internet users reacted positively to those appeals that resonated or were congruent with their cultural backgrounds. The cultural congruence effect was present both in the American and the Chinese samples of participants.

When considering the findings of this study, one should bear in mind that the significant effects of cultural appeals on attitudes were observed without manipulating the language. The stimuli were only in English. The Chinese participants of the study did not view any of the Web sites or advertisements in Cantonese, Mandarin, or any other Chinese dialect. Neither did they have an option to choose the language on the experimental Web sites. It is well documented that language is an integral part of culture and cultural identity. That is why observing significant attitudinal effects in response to culturally oriented stimuli that did not manipulate language, is particularly noteworthy. One can legitimately argue that the effect size of culture on attitudes would have been larger with more substantial experimental manipulation.

The above findings are in line with the predictions of communication accommodation and similarity attraction theories. Although grounded and applied primarily in the context of interpersonal communication, the theories held true in computer-mediated communication. The robustness of the above theories beyond their initially formulated domain is not unique. Examples abound of how psychological theories originally conceptualized to explain attitude and behavior formation in the interpersonal communication context have been successfully applied in various areas of mass communication.

For example, scholars used cognitive dissonance and other balance theories in mass communication research to explain the effects of persuasive messages on media audiences (Aronson, 1992). Balance theories were first developed to predict attitude change at the individual level. Nevertheless, advertising scholars have successfully employed balance models to identify techniques that would produce dissonant states among consumers, create dissatisfaction with the products they already own, and form desires for new products and services (e.g., Winsor & Hesperich, 2001). The social learning theory is yet another example of a conceptual framework that successfully moved from interpersonal to mass communication context. Formed to explore the sources of human behavior (e.g., aggression), the theory started out with a hypothesis that behavior derives from observing and modeling the surrounding social environment (Bandura, 1973). The hypothesis was later supported both in interpersonal and mass communication contexts. In fact, when applied to the study of television usage and aggression, the theory's original prediction that exposure to violence contributes to violent behavior turned out to be accurate, thus supporting the theory in the context of mass communication (Lowery & DeFleur, 1995). By the same token, one could expect the communication accommodation theory to hold true in computer-mediated cross-cultural communication. Similar to social learning and balance theories, the predictive power of communication accommodation theory went beyond its primary areas of applications.

The research question of my study explored the cognitive effects of cultural appeals. In particular, the question examined whether culturally congruent and culturally incongruent appeals differ in the intensity of elaboration they produce. In this study, I viewed cultural appeals as a form of schema. The data did not reveal any differences in the level of elaboration between the two types of appeals. This is a surprising finding. According to the schema theory, culturally

incongruent appeals, as schema-inconsistent messages, would lead to more effortful and elaborative cognitive processing than culturally congruent appeals.

One possible explanation for the lack of significant differences may lie in the unique nature of the Web and online communication in general. It might be the case that, unlike other events and phenomena, Web sites are not connected to any particular schema. Digital media are largely shaped by their users' and producers' social practices, cultural values, and interests. As such, they closely reflect a wide and diverse range of cultural expressions and collective identities. Given the dynamic nature of the Web and the ever-increasing diversification of the cyber culture, people might not have a static set of beliefs about the structural and content characteristics of Web sites. In other words, because of the exposure to a large and rapidly changing variety of online content and design executions, users might not form any specific expectations of how Web sites should look like. Consequently, all appeals, whether culturally congruent or not, will produce the same or similar cognitive effects because of the lack of specific user expectations. The validity of the above rationale, however, remains to be tested.

The fifth hypothesis of the study expected need for cognition to influence the persuasive effects of cultural appeals. The hypothesis predicted that those with low need for cognition would react more positive to culturally congruent messages than those with high need for cognition. The hypothesis was not supported. The findings of the study revealed that people with various levels of need for cognition had uniform reactions toward cultural appeals. One way to explain this finding is to examine the assumptions behind the third hypothesis. This hypothesis rests on two assumptions.

According to the first assumption, cultural appeals represent peripheral rather than central cues. The assumption derives from the idea that cultural elements in communication are part of a message design or format rather than message content or argument. The presence or lack of

cultural elements does not affect the overall content of a message. Rather, it affects the frame, format, or channel through which the message is communicated or transmitted to its audience.

The second assumption is based on the elaboration likelihood model, which states that a given cue can be either central or peripheral, but not both at the same time. According to the model, the nature of the cue does not depend on individual interpretations. Rather, it derives from a set of objective characteristics. These characteristics automatically classify the cue either into the central or the peripheral category. Peripheral cues are pieces of information that are remotely or indirectly associated with the object of the message (e.g., images, sounds, jargon, endorsements, animation, etc). Central cues, on the other hand, exclusively focus on brand or product data (e.g., product characteristics, such as durability, compatibility, etc.).

One can argue that cultural appeals may not necessarily be peripheral elements. People grow up in a certain culture. Over time, cultural norms and values become an integral part of people's lives. Although not focused on brand or product features, cultural appeals can still constitute a central part of a message. Moreover, one can further argue that the nature of any cue is a function of individual interpretations. For example, while some consumers may view celebrity endorsements as irrelevant to the merits of a product, others may see them as part of product or company credentials. Similar to the idea of perceived interactivity, the meaning of cues may vary from person to person. What some see as a format or a medium others may see as a message. After all, the blurred lines between the message and the medium were well reiterated as early as in the 1960's when McLuhan stated that the medium was the message (1964, p. 9).

The above two assumptions may explain why the need for cognition did not influence the attitudinal effects of cultural appeals. If the role and place of cultural elements are indeed a function of individual interpretations, rather than objective classifications, one cannot expect NFC to determine the attitudinal outcomes of cultural appeals. People with the same levels of

NFC might not necessarily have uniform reactions to the same cultural appeals. Similarly, one cannot expect people with various levels of NFC to have various reactions in response to cultural appeals. For example, among those with high NFC, there might be some who see cultural appeals as central cues. In the same high NFC group, there might be some who see cultural appeals as peripheral cues. Therefore, although similar in their level of NFC, the above individuals will react differently to the same cultural appeals (i.e., those who see the appeals as central cues will be more persuaded than those who see the appeals as peripheral cues).

The sixth hypothesis expected ethnic identity to influence the relationship between culture and persuasion. In particular, the hypothesis predicted that those with high levels of ethnic identity would react more favorably to the use of cultural appeals than those with low levels of ethnic identity. Contrary to the expectation, ethnic identity did not interact with the effects of cultural appeals. All the participants, regardless of the level of their ethnic identity, reacted to cultural appeals in a uniform way.

Culturally congruent marketing communication is effective because it is tailored to the cultural backgrounds and social identities of ethnic consumers. Advertisers make marketing messages culturally congruent through "encoding" cultural appeals or cues, such as shared cultural symbols, appropriate media placement, language, and race. The advertiser's hope is that consumers will notice and "decode" the cues, which, in turn would encourage positive evaluations of the advertised products and brands. Some argue that cultural appeals are effective only when they are noticed (Wilkes & Valencia, 1989). In fact, research has revealed that recognition of culturally accommodative messages is related positively to the formation of attributions and attitudes toward the message and its source. Noticing cultural appeals, on the other hand, depends on the strength of one's ethnic identity. Those who identify strongly with their cultural heritage are particularly likely to notice cultural appeals (Bargh, 1984). That is why

I expected ethnic identity to interact with the effects of cultural appeals. I hypothesized that ethnic identity would produce additional attitudinal effects toward culturally congruent advertising because the strength of ethnic identification is related directly to the likelihood that the accommodation attempt will be recognized. One can argue, however, that my study's cultural appeals were so salient that the accommodation attempt was recognized equally well by all the participants regardless of their level of ethnic identity.

It is well-documented that increased levels of cultural accommodation increase the extent to which an accommodation attempt is recognized (Holland and Gentry, 1999). To test the effects of culturally congruent communication, I employed a wide range of cultural appeals both in advertisements and their hosting Web sites. Unlike most of the previous research, who tested the effectiveness of cultural cues with single-item-manipulation checks (e.g., spokespersons, colors, hyperlinks), I took a comprehensive approach in integrating the cultural appeals into persuasive messages. Instead of being concentrated in a single area, this study's cultural appeals were scattered throughout the stimuli. As a result, the stimuli had a particularly strong and explicit cultural presence, which could have led the participants (those who have strong ethnic identities and those who do not) to produce uniform attitudes in response to culturally congruent communication.

The nature of the ethnic identity scale could be yet another possible explanation for the lack of significant interaction results. The scale is based on the etic approach to the cross-ethnic equivalence. The etic approach, as opposed to the emic approach, assumes that attitudinal and behavioral phenomena are expressed in a uniform way in each ethnic group. The emic approach, on the other hand, posits that each ethnic group has its unique way of expressing attitudes and behaviors. The approach, therefore, focuses on developing and adapting measurement instruments that take into account the ethno-cultural qualities specific to a given group (Usunier,

1996). Examples of emic measures include Herd's scale of "Black Identity" and Valencia's scale of "Hispanicness" (Herd & Grube, 1996; Valencia, 1985). Substituting etic identity measures with emic scales, while providing a more nuanced and subtle analysis of ethnic identity, could reveal interaction patterns undetectable to etic scales.

The diverse nature of the American society might provide yet another explanation for the lack of significant interaction effects between ethnic identity and cultural appeals. The American society as a cultural group consists of many ethnicities. The group cannot be adequately characterized by the characteristics of a single ethnic group. As a result, the strength of ethnic identity might not comprehensively capture the ethno-cultural diversity of Americans. Future studies should go beyond ethnic identities and focus on culture as a common denominator of social norms and practices. There are many scales that measure cultural identities. Developed with rigorous factor analytic techniques, most of them enable accurate and multidimensional operationalizations of cultural identity and acculturation. The latter refers to the process that occurs when two autonomous cultural groups are constantly interacting with and changing each other depending on the power relationship between them (Berry, 1980).

The seventh hypothesis of the study predicted that Web site attitudes and perceived interactivity would influence attitudes toward the ad and attitudes toward the brand. The findings of this study showed that Web attitudes and perceived interactivity did "translate" into ad and brand attitudes. These findings are consistent with the vehicle source effect literature, which states that the evaluations of a massage are, in part, a function of the evaluations of the medium that communicates the message. Similar to the previous research on vehicle source effect, this study revealed that people "carried" their evaluations of the culturally congruent Web sites over to the advertisements placed on those sites.

The eighth hypothesis of the study posited that attitudes toward the ad and attitudes

toward the brand would predict the intentions to purchase the advertised product. The support for this hypothesis was in line with the vast body of theoretical and empirical evidence that positive attitudes toward a behavior predict one's likelihood to engage in the behavior. Although the mechanisms through which positive attitudes determined positive behavioral intentions have yet to be fully explored, the current study provided strong evidence in support of the relationship between ad, brand attitudes and purchase intent in the context of online advertising. Future research, along with examining the effects of consumer attitudes on behavioral intentions, should also explore the circumstances under which the above effects are particularly salient.

The ninth hypothesis predicted that culturally congruent Web sites along with culturally congruent advertisements would produce more positive attitudes than culturally congruent Web sites or culturally congruent advertisements alone. Consistent with this prediction, the study found that advertising cultural appeals were particularly effective when combined with Web cultural appeals. The (cultural) relevance between the ad and the site produced additional effects. In order to explain the additional attitudinal effects, one should understand the mechanisms that trigger particularly strong reactions toward advertisements and brands that are culturally consistent with their media. Some of these mechanisms may lie in participants' emotional states. Gratitude, for example, may explain why people reacted particularly strongly to accommodative attempts that focused on both the message (i.e., ad) and the medium (i.e., Web site). Understanding the role of gratitude in forming positive reactions toward culturally accommodative practices is important because of the following reasons. First, the sense of gratitude is one of the most commonly experienced affective states. Second, gratitude is both a response and a motivator of benevolent behavior. As McCullough and his colleagues point out "not only a gratitude is the prototypical affect that people experience when they perceive that someone has acted in the interest of their personal well-being, but the emotion of gratitude might

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also have motivational value, prompting grateful people to behave prosocially" (2001, p. 252). In other words, people who were made grateful by a benefit are more likely to reciprocate positive behavior or attitudes toward their benefactor. Accordingly, one can argue that the reason behind positive attitudes toward accommodation derives from the sense of gratefulness. People react positively toward accommodation practices, because they feel grateful for those practices. The accuracy of this explanation, however, remains to be examined.

Implications

Theoretical Implications

The current study expanded its conceptual frameworks by applying them in fundamentally new contexts. While being largely studied in speech and interpersonal communication research, accommodation theory has hardly ever been explored in the context of marketing communication. The only aspect of accommodation that was studied in marketing was language use (Cooper & Carpenter, 1969; Giles, 1973; Holland & Gentry, 1999). The review of literature found no studies that attempted to expand the empirical exploration of accommodation to cross-cultural computer-mediated communication. This study, therefore, provides an understanding of accommodation that goes well beyond the limits of linguistic and speech research. Similarly, the existing cultural frameworks, such as Hofstede's value typology, have been developed and applied primarily in anthropological and sociological contexts (Basu, 2003; Hofstede, 1994). In cross-cultural research, the use of those frameworks have been limited to macro-level inquiries concerned with identifying cultural predictors of social and economic trends, such as corruption rates (e.g., Cheung & Chan, 2008), sexual harassment (e.g., Luthar & Luthar, 2008), work motivation (e.g., Barbuto & Gifford, 2007), and gender inequality (e.g., Cheung, 2007). The current study expanded cultural typologies by introducing previously under-explored technological dimensions specific to the Web.

Testing existing communication theories in new contexts is especially important in light of recent debates questioning the robustness of traditional models and approaches in the study of the Web. Some have suggested that theories are medium-specific (Kaye & Johnson, 2002; Ruggerio, 2000). They are conceived for a certain form of mediated communication. Assumptions, concepts, and operational linkages are dictated by and limited to the nature of the medium and the technological environment in which theories are formulated. With every major change in the technological landscape, theories need to be revised and retested. Others have disagreed with the above opinions by referring to the robustness of communication theories. The current study contributed to the above debate by reevaluating some of the frequently used communication theories in the light of the Web and its fundamental features, such as interactivity, demassification (i.e., narrowcasting), and asynchroneity (i.e., time/space flexibility in retrieving and communicating media messages).

Industry Implications

Scholars have explored the role of culture in online persuasive communication with rather segmented efforts and inquiries. While some have focused on the platforms or channels (e.g., Web sites) of persuasive speech (Lynch, Kent, & Srinivasan, 2001; Singh, Furrer, & Massimiliano, 2004), others have studied the content of the speech (Han & Shavitt, 1994; Jeon & Beatty, 2002; Zandpour et al., 1994). As opposed to previous works, the current study took a more comprehensive approach in studying the outcomes of cultural appeals in marketing communication. In so doing, it addressed the growing need for effective advertising design and placement from an adequately complex perspective by taking into account the contextual considerations and the relevance between the medium (i.e., a Web site) and its content (i.e., an advertisement).

The findings of the study reveal a set of specific approaches and techniques in marketing and advertising to collectivistic consumers. As the findings demonstrate, collectivistic consumers prefer features that enable community involvement, social interaction, and networking. In targeting the above consumer groups, marketers should place particular emphasis on creating communities around advertised brands and products. This is especially important given the increasing popularity of online social media in various market segments. As recent reports demonstrate, 40% of Internet users have made a purchase based on advertising they saw on a social media site (Razorfish, 2008). Often, social media advertisements allow consumers to share their interactions with products and brands throughout their peer network with features, such as news feeds (Klaassen, 2007). Customer reviews and peer-to-peer communication are some of the major features that explain the effectiveness of online networks. In fact, 32% of Web sites with customer reviews report a substantial increase in the conversion rate (10% and higher) (e-tailing group, 2008). Evidence shows that peer-to-peer and word-of-mouth communication has more powerful effects on consumer trust and attitudes than traditional advertising (Nyilasy, 2004). Despite the potential in online social media advertising, marketers still have not sufficiently explored the ways of utilizing social networks. In 2009, 1.8 billion dollars were spent on online social network advertising. This constitutes only 6% of the total online advertising spending (eMarketer, 2008).

According to the findings, individualistic consumers prefer Web sites and advertisements that emphasize product customization. Individualistic consumers value personalized content. This finding is in line with industry trends, which indicate that personalization leads to product attachment (Schifferstein & Pelgrim, 2003) while enhancing consumer responsiveness (Howard & Kerin, 2004). Individualistic consumers view personalized messages as more relevant to their needs and preferences. Accordingly, marketers should take a comprehensive approach to

personalization and customize not only products and advertisements, but also the overall media environment, which carries or disseminates those advertisements. Greater emphasis on consumer research is a central prerequisite to developing personalized ads and Web sites. Advertisers who are marketing to individualistic consumers should take more advantage of consumer tracking technologies, such as cookies, collaborative filtering, and login accounts to better understand each individual customer's preferences and tastes. Moreover, they should go beyond traditional tracking techniques and utilize more psychographic and biometric segmentation. There are currently several hardware and software companies in the electronic biometric authentification market. Those companies offer products, such as biometric "mouses" with fingerprint readers on the thumb side of the device. These devices accurately associate any computer activity with a particular user.

Customization and personalization, however, may compromise consumer privacy. Often, personalization is possible only at the expense of online privacy. For example, online bookstores that provide personalized recommendations based on previously bought books bound to keep consumer records for an indefinite time. Similarly, online searchers who like search engines delivering search results catered toward their interests may feel uncomfortable with having their past search terms recoded and stored. The "trade-off" between privacy and personalization makes marketing to individualistic consumers particularly challenging. In fact, my findings show that individualistic consumers are particularly sensitive toward privacy issues. They may have greater need for privacy than collectivistic consumers. Indeed, previous research has shown that a mere presence of a privacy link or a privacy seal had a substantial positive effect on both trust and disclosure among Internet users (Kobsa, 2007). As a result, individualistic consumers may be less willing to share personal information with companies even for the sake of personalized

content. Evidence suggests that those with high need for privacy interact less and are less comfortable with a stranger than those with low need for privacy (Larson & Bell, 1983).

In certain instances, marketers can rotate the use of collectivistic and individualistic appeals depending on the shifts in consumers' cultural identities. In targeting Chinese-American consumers, for example, a marketer may start out with collectivistic appeals. Over time, however, with an increasing assimilation of Chinese Americans into the mainstream American culture, a marketer may gradually move from collectivistic appeals to individualistic ones. Furthermore, based on the theory of cultural imperialism, one can argue that marketers can intentionally diffuse or "inject" foreign cultural norms into a given society or consumer group in an effort to artificially acculturate the representatives of the group. The latter would allow marketers to target foreign consumers with uniform appeals without the need to adjust or accommodate culturally. In other words, instead of altering the cultural appeals of their marketing strategies to fit the cultural backgrounds of foreign target groups, marketers could alter the cultural backgrounds of their consumers to fit the already existing marketing strategies. This, however, would not be cost effective given enormous economic and political constraints associated with promoting cultural values in a foreign society, especially in some countries of Asia and Middle East where governments still impose substantial restrictions on communication and free speech (e.g., the case of Google and Internet censorship in China).

Limitations and Future Research

The scope and design of my study have their limitations. First, the model of the study is limited to ethnic identity and need for cognition as interaction variables. Given the complex nature of culture-persuasion relationship, it is important to have a more comprehensive understanding of the circumstances under which cultural appeals form attitudes and produce behavioral intentions. Therefore, future research should develop more advanced models to

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adequately analyze attitude formation in response to culturally oriented communication. A number of personality and situational variables can influence the way ethnic consumers react to accommodative attempts. Studies could examine how personality characteristics, such as need for belonging, extraversion, and introversion influence the reactions toward collectivistic appeals. For example, need for belonging, which is the basis of humans' desire to form and maintain lasting relationships, can enhance the persuasive effects of social network advertising. Social networking features offer a space in which people can gratify their need for belonging by engaging into conversations, exchanging information, expressing opinions, gaining social approval, and even influencing others. Naturally, those with strong need for belonging would have particularly positive attitudes toward cultural appeals that integrate social networking component (similar to the collectivistic stimuli of this study). Along with examining the effects of personality variables on the relationship between culture and advertising effectiveness, future studies should also investigate the situational and sociological variables that may interact with cultural appeals. For example, it would be interesting to know whether the attitudinal effects of cultural appeals are uniform across brand categories and product types. Consumers' social class is yet another potential determinant of the effectiveness of cultural appeals. Those at the top of a social hierarchy tend to be more self-established and self-actualized. According to Maslow's hierarchy of needs, self-actualized people are motivated primarily by matters such as justice, spirituality, truth, and culture. One could argue that those people would be particularly responsive to the use of cultural values and themes in online communication.

Although the study's cultural scales have been successfully tested in numerous cross-cultural research projects, the rapidly expanding online environment will need new instruments to capture the cultural orientation of online marketing communication. The Web changes every

day. Measurement of its cultural representations cannot be static. The dynamic nature of the Internet requires a constant search and validation of new measurement approaches and scales.

In addition, although the study of attitude formation and behavioral intentions represents a fascinating area of communication inquiry, future research, while taking a more complex view of cross-cultural marketing communication, should focus not only on attitudinal, but also on a variety of emotional and behavioral effects of culturally oriented persuasive messages. Studies in this area should go beyond examining the exposure effects and concentrate on the actual online behavior and decision-making. Behavior change is a more compelling variable than attitude change. More difficult to produce, behavior change has greater theoretical and practical implications. Today, scholars can measure it without relying on self-report and often retrospective data sets. The interactive nature of online communication enables researchers to instantly track a wide spectrum of advertising-induced behavioral outcomes, such as click-though rates and user click paths.

Future research should also diversify the spectrum of methodological approaches in studying cross-cultural marketing communication. The overwhelming majority of studies in this area have relied on data collected at a single point in time. Combining cross-sectional designs with longitudinal observations, while establishing a more accurate time ordering among variables, would allow stronger causal claims (i. e., would turn causal relationships into time-related ones). Furthermore, even through scholars have used online experiments in a variety of audience and consumer research, the lack of direct oversight over stimulus exposure associated with this method may underreport the persuasive outcomes of culture-specific messages. Integrating online experiments with laboratory studies, while ensuring greater experimental control would enhance the overall validity of observations. Studies on culture and persuasion should also take advantage of qualitative approaches. Although I employed a qualitative research

component in conducing focus groups and pre-testing my instrument, scholars should have a greater balance in positivist, structural, and critical research perspectives. The qualitative approach, while acknowledging the material, social, and organic realms in which humans exist, would allow researchers to study the "new" medium and its persuasive potential within a larger system of meaning.

Finally, future research should employ physio-psychological measurements in examining the role of culture in online marketing communication. Eye tracking, facial expressions analysis, skin conductance tests and other physiological measurements of cognitive processing and emotional arousal would allow researchers to go beyond the limits of self-report data. By examining fixations, pupil dilation, blinks, sweat production, and a variety of other real-time physiological processes, researchers can expand the understanding of the mechanisms and principles of human persuasion.

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APPENDIX A: FOCUS GROUP PROTOCOL

Welcome, and thank you for coming today. Our meeting is part of a larger research project that examines the role of culture in online communication. The immediate purpose of the meeting is to get your opinions on how phenomena, such as culture, human cognitions, attitudes, and Web design relate to each other. I would also like you to provide feedback on a set of dental care Web sites by examining the content and the format of their front/index pages.

Please tell me what are the thoughts that come to your mind when thinking about collectivism/individualism?

What does your ethnic identity and cultural heritage mean to you?

What is a "good" Web site?

How important is it for a Web site to reflect cultural values?

Why is it important?

How do culturally sensitive or culturally oriented Web sites influence your attitudes/perceptions/cognitions? (Note: Culturally sensitive/oriented Web sites are those that reflect or incorporate certain cultural elements/values-show examples).

How do cultural values in online content or online speech influence the overall persuasiveness of the speech? (Note: The persuasiveness of the arguments-NFC)?

How does your ethnic identity influence your attitudes/perceptions of culturally oriented Web sites?

Please list all the other variables/factors that you think may influence your attitudes/perceptions of culturally oriented Web sites.

Let's talk about the same questions, this time in the context of culturally oriented advertisements and brands (i.e., "What is a good advertisement/brand? etc.)

How likely are you to purchase a product advertised online?

How likely are you to purchase a product whose advertisements reflect cultural values?

How important is the (cultural) fit between an advertisement and its hosting Web site?

How do your attitudes/perceptions of Web sites influence the advertisements/brands/products placed on those sites?

Please take a look at the following dental care Web sites and advertisements.

What are their commonalities and differences?

What cultural dimensions do you think the Web sites and advertisements reflect?

How strong is the cultural presence on these Web sites and advertisements?

How can the cultural presence be strengthened?

Thanks again for your participation!

Collectivistic Web-Collectivistic Ad

Collectivistic Web-Individualistic Ad

Individualistic Web–Individualistic Ad

Individualistic Web-Collectivistic Ad

APPENDIX C: INSTRUMENT

Thank you for taking part in our survey. The purpose of the survey is to get your feedback on a dental care Web site, which is currently under development. You will start the survey by answering a set of demographic questions. Next, you will view the front page of a Web site as well as an electronic toothbrush advertisement placed on the site. Since the Web site is still under construction, all the hyperlinks are disabled. This means, you will not be able to click through navigation bars, images, or texts. After viewing the front page of the Web site, you will be given another set of questions to share your feedback on the site and the advertisement you saw. Thanks again for your participation!

Please tell us a little about yourself

1. What is your country of origin?

2. Do you currently live in the United States?

3. How long have you lived in the United States?

○ Less than 1 year

○ Between 1 and 3 years

○ Between 3 and 7 years

○ More than 7 years

○ I have lived in the United States almost all my life

○ I have never lived in the United States

4. Please indicate how much you agree or disagree with the following statements

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I am a unique individual	○	○	○	○	○	○	○
I am different from others	○	○	○	○	○	○	○
I like to dress differently from others	○	○	○	○	○	○	○
My misconduct would make my friends feel ashamed	○	○	○	○	○	○	○
The way I enjoy myself is different from others	○	○	○	○	○	○	○
If I lost a prestigious job, it would humiliate my friends	○	○	○	○	○	○	○
If I failed a class, it would be an embarrassment to my friends	○	○	○	○	○	○	○
I would be honored by my friends' accomplishments	○	○	○	○	○	○	○
Being distinctive is important to me	○	○	○	○	○	○	○
I intentionally do things to make myself different from those around me	○	○	○	○	○	○	○
When making decisions, it is important for me to take others' needs into account	○	○	○	○	○	○	○
When making decisions, it is important for me to take others' feelings into account	○	○	○	○	○	○	○
I feel that I have to be better than everyone else	○	○	○	○	○	○	○
If I decided to change my job, one of the major concerns would be how this change would affect my friends	○	○	○	○	○	○	○

5. Please rate the Web site you saw earlier by indicating how much you agree or disagree with the following statements

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
This Web site made it easy for me to build a relationship with this company	○	○	○	○	○	○	○
I would like to visit the Web site again in the future	○	○	○	○	○	○	○
I am satisfied with the service provided by this Web site	○	○	○	○	○	○	○
Compared with other Web sites, I would rate this one as one of the best	○	○	○	○	○	○	○
The Web site made me want to purchase the advertised toothbrush	○	○	○	○	○	○	○
I was in control over the pace of my visit to this Web site	○	○	○	○	○	○	○
I could communicate with the company directly for further questions about the company or its products if I wanted to	○	○	○	○	○	○	○
I could communicate in real time with other customers who shared my interest in this product category	○	○	○	○	○	○	○
Interacting with this site is like having a conversation with a sociable, knowledgeable and warm representative from the company	○	○	○	○	○	○	○
I felt as if this Web site talked back to me while I was navigating	○	○	○	○	○	○	○
I perceive the Web site to be sensitive to my needs	○	○	○	○	○	○	○

6. Please rate the electronic toothbrush advertisement (but not the electronic toothbrush) you saw earlier by indicating how much you agree or disagree with the following statements

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The advertisement was likeable	○	○	○	○	○	○	○
The advertisement was pleasant	○	○	○	○	○	○	○
The advertisement was not interesting	○	○	○	○	○	○	○
The advertisement was irritating	○	○	○	○	○	○	○
The advertisement made me want to purchase the advertised toothbrush	○	○	○	○	○	○	○

7. Please rate the brand of the electronic toothbrush advertisement (but not the electronic toothbrush or its advertisement) you saw earlier by indicating how much you agree or disagree with the following statements

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The brand was good	○	○	○	○	○	○	○
The brand was nice	○	○	○	○	○	○	○
The brand was not likable	○	○	○	○	○	○	○
I would likely purchase the advertised toothbrush	○	○	○	○	○	○	○

8. Please indicate how much you agree or disagree with the following statement

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I will definitely purchase the advertised toothbrush	○	○	○	○	○	○	○

9. Please list as many thoughts as possible that came to mind while looking at the Web site

[   ]

10. Please list as many thoughts as possible that came to mind while looking at the electronic toothbrush advertisement

[   ]

Please tell us about yourself

11. What is your gender?

○ Male

○ Female

12. Please indicate your date of birth (e.g., January 12, 1980 or 01/12/1980)

[   ]

13. Please indicate how much you agree or disagree with the following statements

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I hate to lose	○	○	○	○	○	○	○
I don't like to rely on other people	○	○	○	○	○	○	○
I want to be the best every time I compete	○	○	○	○	○	○	○
What happens to me is my own doing	○	○	○	○	○	○	○
I like to act independently and take matters into my own hands	○	○	○	○	○	○	○
I try to live my life independent of others as much as possible	○	○	○	○	○	○	○
When facing a difficult personal problem, it is better to decide what to do yourself, than to follow the advice of others	○	○	○	○	○	○	○
When making decisions, it is important for me to consider the effects that my decisions have on others	○	○	○	○	○	○	○
If I decided to get married, one of the major concerns would be how my marriage would affect my friends	○	○	○	○	○	○	○

If I moved to another city, it would be important for me to consider how my friends would be affected	○	○	○	○	○	○	○
I enjoy competing against others	○	○	○	○	○	○	○
I perform my best when I am competing against others	○	○	○	○	○	○	○
I feel gratified when I excel and others do not	○	○	○	○	○	○	○
I would never allow others to take the credit for something I accomplished	○	○	○	○	○	○	○
I would feel honored if my friends received a distinguished award	○	○	○	○	○	○	○
If my friends were to have a successful career, I would be very proud of them	○	○	○	○	○	○	○
My friends would be honored if I got into a prestigious school	○	○	○	○	○	○	○
If I got a good job, my friends would be very proud of me	○	○	○	○	○	○	○
If I were successful, my friends would be honored	○	○	○	○	○	○	○
If my friends were caught shoplifting, I would be humiliated	○	○	○	○	○	○	○
If my friends were losers in life, I would be embarrassed	○	○	○	○	○	○	○
I would feel ashamed by my friends' misconduct	○	○	○	○	○	○	○

Please tell us about yourself and your overall world views

14. Please indicate how much you agree or disagree with the following statements

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs	○	○	○	○	○	○	○
I am active in organizations or social groups that include mostly members of my own ethnic group	○	○	○	○	○	○	○
I have a clear sense of my ethnic background and what it means for me	○	○	○	○	○	○	○
I think a lot about how my life will be affected by my ethnic group membership	○	○	○	○	○	○	○
I am happy that I am a member of the group I belong to	○	○	○	○	○	○	○
I have a strong sense of belonging to my own ethnic group	○	○	○	○	○	○	○
I understand pretty well what my ethnic group membership means to me	○	○	○	○	○	○	○
In order to learn more about my ethnic background, I have often talked to other people about my ethnic group	○	○	○	○	○	○	○
I have a lot of pride in my ethnic group	○	○	○	○	○	○	○

Statement							
I participate in cultural practices of my own group, such as special food, music, or customs	○	○	○	○	○	○	○
I feel a strong attachment towards my own ethnic group	○	○	○	○	○	○	○
I feel good about my cultural or ethnic background	○	○	○	○	○	○	○
I would prefer complex to simple problems	○	○	○	○	○	○	○
I like to have the responsibility of handling a situation that requires a lot of thinking	○	○	○	○	○	○	○
Thinking is not my idea of fun	○	○	○	○	○	○	○
I would rather do something that requires little thought than something that is sure to challenge my thinking abilities	○	○	○	○	○	○	○
I try to anticipate and avoid situations where there is likely chance I will have to think in depth about something	○	○	○	○	○	○	○
I find satisfaction in deliberating hard and for long hours	○	○	○	○	○	○	○
I only think as hard as I have to	○	○	○	○	○	○	○
I prefer to think about small, daily projects to long-term ones	○	○	○	○	○	○	○
I like tasks that require little thought once I have learned them	○	○	○	○	○	○	○
The idea of relying on thought to make my way to the top appeals to me	○	○	○	○	○	○	○
I really enjoy a task that involves coming up with new solutions to problems	○	○	○	○	○	○	○
Learning new ways to think doesn't excite me very much	○	○	○	○	○	○	○
I prefer my life to be filled with puzzles that I must solve	○	○	○	○	○	○	○
The notion of thinking abstractly is appealing to me	○	○	○	○	○	○	○
I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought	○	○	○	○	○	○	○

I feel relief rather than satisfaction after completing a task that required a lot of mental effort	○	○	○	○	○	○	○
It's enough for me that something gets the job done; I don't care how or why it works	○	○	○	○	○	○	○
I usually end up deliberating about issues even when they do not affect me personally	○	○	○	○	○	○	○

15. Please enter your e-mail address to participate in the drawing.

[   ]

Figure 10. Mean Differences in Web Attitudes across Four Experimental Conditions
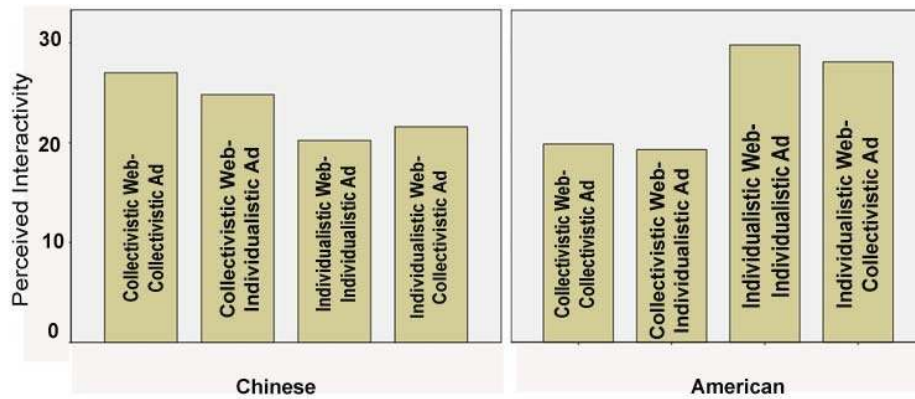
Figure 11. Mean Differences in Web Perceived Interactivity across Four Experimental Conditions
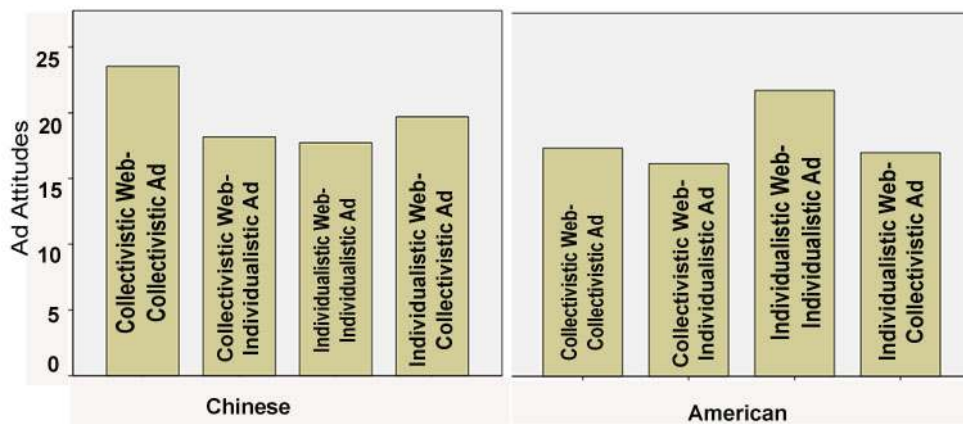
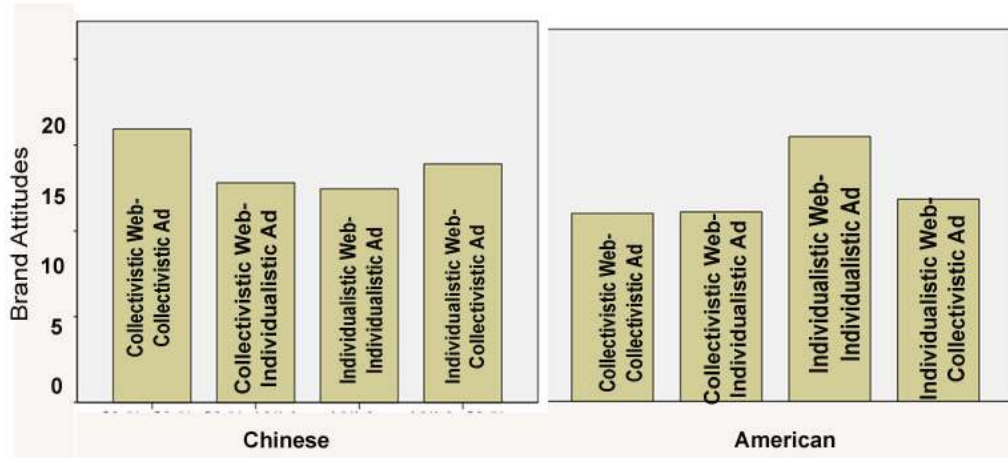**Figure 12. Mean Differences in Ad Attitudes across Four Experimental Conditions**

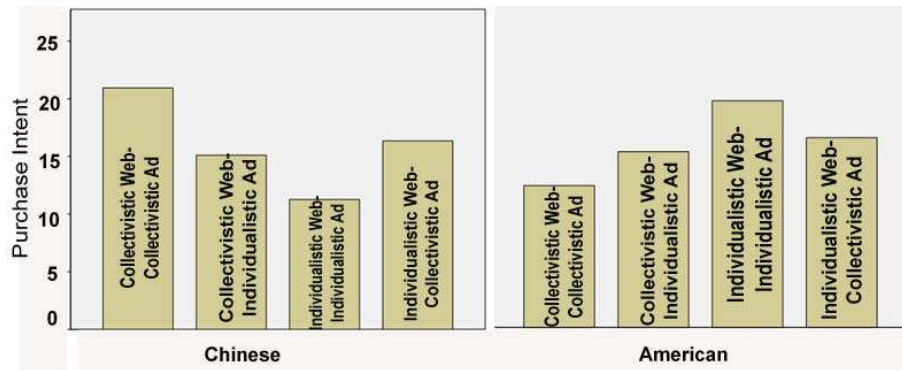**Figure 13. Mean Differences in Brand Attitudes across Four Experimental Conditions**

Figure 14. Mean Differences in Purchase Intent across Four Experimental Conditions

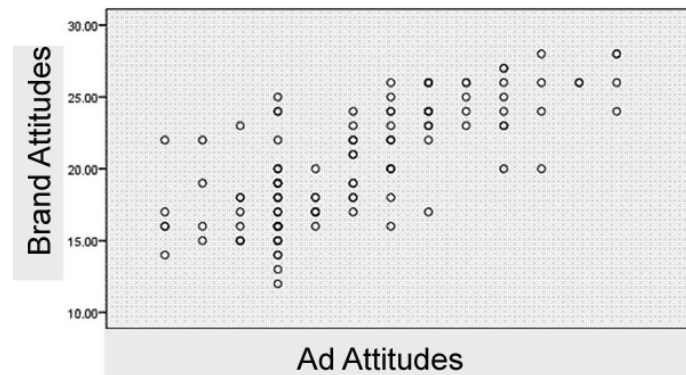**APPENDIX E: SCATTER PLOTS OF CORRELATIONS AMONG DEPENDENT VARIABLES**

Figure 15. Correlation between Ad and Brand Attitudes
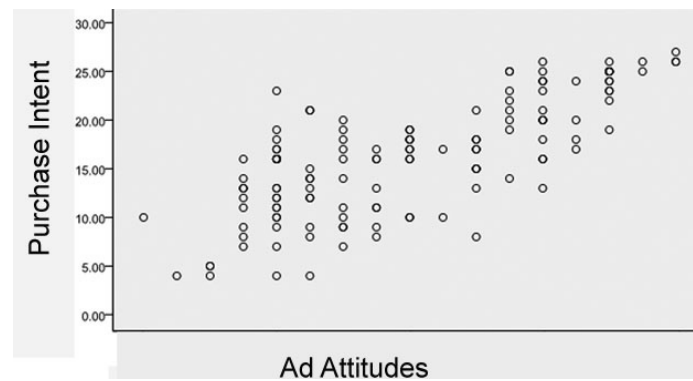

Figure 16. Correlation between Ad Attitudes and Purchase Intent
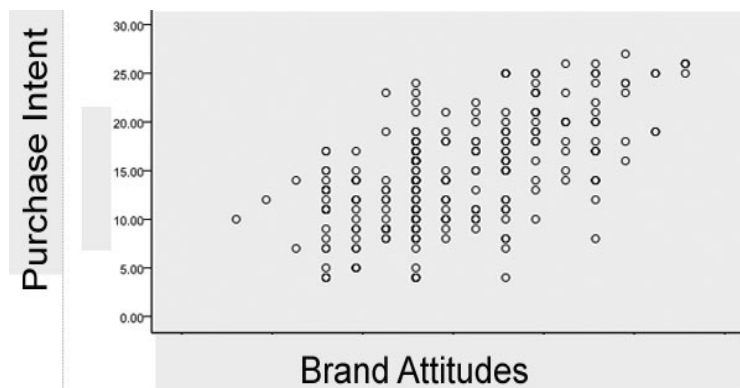

Figure 17. Correlation between Brand Attitudes and Purchase Intent

VITA

Gennadi Gevorgyan has held numerous marketing and advertising positions with newspapers and media consulting groups. His research interests include global branding, human-computer and virtual interactions, and online behavior and decision-making. Dr. Gevorgyan is currently a tenure track assistant professor at Xavier University in Cincinnati, Ohio.