THE EFFECTIVENESS OF COMPARATIVE ADVERTISING IN KOREA AND THE UNITED STATES

A Cross-Cultural and Individual-Level Analysis

Yung Kyun Choi and Gordon E. Miracle

ABSTRACT: Using subjects from Korea and the United States, this study reports the results of an experiment designed to discover links between national culture, self-construals, and the effectiveness of comparative advertising. First, the effect of national culture on comparative advertising effectiveness was investigated. Then, using self-construals as individual-level variables in a path model, the study investigated their mediating effects on the influence of national culture on the effectiveness of comparative advertising. Results indicated not only that national culture influences the effectiveness of comparative advertising, but also that self-construals have mediating effects on attitudes toward the advertisement ($A_t$) for both indirect comparative advertising and noncomparative advertising. Thus, the study goes beyond the post hoc explanations that so many studies have used to link differences in the effectiveness of advertising to cultural variability, and thereby contributes to theory on the mediating effects of self-construals. The findings also have implications for advertising managerial practices and public policy on the regulation of advertising. But perhaps the main contribution of the study is a research design using self-construals to demonstrate how individual-level variables can mediate the influence of national culture on advertising effectiveness.

Despite differences in the use of comparative advertising from country to country, little research has been done to explain or predict the differences in the cross-cultural effectiveness of comparative advertising. The purpose of this study was to investigate such differences by conducting an experiment in Korea and the United States on possible links between national culture, individual-level values, and the effectiveness of comparative advertising.

Comparative advertising is commonplace in the United States, but it is not widely used in most other countries, due to cultural norms or government regulation (Kotabe and Helsen 1998). In Korea, where confrontation is avoided and harmony is sought, cultural norms are inconsistent with the tactics used in comparative advertising (de Mooij 1998; Miracle and Choi 1997). Comparative advertising has been allowed officially in Korea only since 2001, and has not been widely used.

Korea and the United States seemed to be a logical pair of countries for this study for two reasons: (1) the sharp contrast in the use of comparative advertising in Korea and the United States, and (2) the extreme cultural differences between the two countries. Hofstede (1991) reported that Korea is a highly collectivistic country with a low individualism rank (43rd out of the 53 countries and regions studied) and a low individualism score (18 in the range of 6 to 91). In contrast, the United States is the most individualistic and least collectivist of the 53 countries and regions studied (ranking number 1, with a score of 91). For this study, national culture, characterized by the extremes of collectivism in the two countries, was selected, along with the type of advertising (direct, indirect, and noncomparative advertising), as the independent variables. Individual values were operationalized by self-construals, a mediating individual-level variable that demonstrates how national culture influences consumer behavior.

Comparative advertising is a message format in which a competing brand attacks another brand(s) in the marketplace by making a direct or indirect comparison of one or more product attributes or benefits. The literature on comparative advertising is extensive, and the conditions under which comparative advertising is effective are widely understood (e.g., Barry 1993; Byer and Cooke 1985; Cho 1996; Droge 1989; Droge and Darmon 1987; Ertgar and Goodwin 1982; Iyer 1988; Ki and Lee 2000; Kim and Hong 1996; Lord, Lee, and Sauer 1992; Lyi 1988; MacKenzie and Spreng 1995; Pechmann and Stewart 1991; Pride, Lamb, and Fletcher 1979).

The effectiveness of advertising was operationalized by at-

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The authors thank Linda Cowles for help with the design of stimulus materials used in this research. The research for this article was funded in part by a grant from the American Academy of Advertising.
attitude toward the advertisement \((A_{ad})\), attitude toward the brand \((A_{br})\), and purchase intention \((PI)\). The literature on these constructs is also extensive (e.g., Baban and Burns 1997; Biehal, Stephens, and Curlo 1992; Gardner 1985; Gresham and Shimp 1985; LaTour and Rotfeld 1997; Machleit and Wilson 1988; MacKenzie and Lutz 1989; Mitchell and Olson 1981; Moore and Hutchinson 1983; Shimp 1981). Since the literature on comparative advertising as well as on \(A_{ad}, A_{br}\), and \(PI\) is extensive and well known, it will not be reviewed here. The literature review for the present study is limited to national culture and self-construals, and their relationships to the effectiveness of advertising.

THEORY AND HYPOTHESES

National Culture and Advertising Effectiveness

In individualistic cultures, individual goals are emphasized over group goals, social ties between individuals tend to be loose, and communication is relatively direct (Triandis 1988). Members of individualistic cultures are relatively more concerned with clarity in conversations (Kim 1994), and indeed, they view clarity as necessary for effective communication (Kim and Wilson 1994). In contrast, in collectivistic cultures, people from birth onward are integrated into strong, cohesive groups; they are relatively more concerned with issues of face management, and this concern leads to their relatively greater use of indirect communication compared with people from individualistic cultures (Kim 1994; Ting-Toomey 1988; Triandis 1994).

Individualism and collectivism are also related to context. Low-context communication, involving the use of explicit and direct messages, is predominant in individualistic cultures, whereas high-context communication, involving the use of implicit and indirect messages, is predominant in collectivistic cultures (Gudykunst and Ting-Toomey 1988; Hall 1976, 1987; Hofstede 1991). In high-context cultures, speakers tend to convey their meanings indirectly in a relevant context, and listeners tend to look for these indirect meanings. People from high-context cultures often find low-context advertisements pushy and aggressive, whereas those from low-context cultures often find them informative and persuasive (Rossmann 1994).

These cultural characteristics are directly reflected in advertising practice (Han and Shavitt 1994; Miracle, Chang, and Taylor 1992; Taylor, Miracle, and Wilson 1997). For example, advertisements employing individualistic values were found to be more persuasive to Americans, whereas advertisements with collectivistic appeals were more effective with Koreans. Furthermore, U.S. advertisements were found to stress more individualism, self-improvement, and product benefits, whereas Korean advertising messages were more concerned about family, groups, and other people. Alden, Hoyer, and Lee (1993) reported that collectivistic countries (Korea and Thailand) had large numbers of humorous advertisements with three or more central characteristics, whereas individualistic countries (the United States and Germany) had fewer advertisements with three or more characteristics.

Comparative advertising is an example of individualistic, low-context communication, which is found to be pushy and aggressive (negative evaluation) or informative (positive evaluation), depending on the culture of the audience. Lyi (1988) reported that comparative advertising in Korea is perceived as ethically undesirable and less believable than noncomparative advertising. Therefore, collectivist, high-context Korean consumers, who are concerned with issues of face management, probably feel relatively uncomfortable with comparative advertising. Conversely, highly individualistic, low-context U.S. consumers probably feel relatively more comfortable with comparative advertising.

The literature on how the cultures of the United States and Korea differ regarding individualism, collectivism, and context, and on how these cultural variables influence direct and indirect communication, suggests that advertising effectiveness with Korean and U.S. consumers ought to be compared for (1) direct comparative advertising (DCA) (advertising that identifies one or more competing brands by name); (2) indirect comparative advertising (ICA) (advertising that refers to the competitor as "the leading brands" without mentioning a specific competing brand); and (3) noncomparative advertising (NCA) (advertising that makes no comparison with a competing brand). The literature on the differences between U.S. and Korean cultures, and the resulting differences in their use of direct and indirect communication, led to the following hypotheses, each of which is divided into three separate subhypotheses \((a, b,\) and \(c)\), which were tested and reported separately:

\[ H1: \text{When exposed to DCA, U.S. consumers will have more favorable} \ (a) \ A_{ad}, \ \text{favorable} \ (b) \ A_{br}, \ \text{and} \ \text{favorable} \ (c) \ PI \text{ than Korean consumers.} \]

\[ H2: \text{When exposed to ICA, U.S. consumers will have more favorable} \ (a) \ A_{ad}, \ \text{favorable} \ (b) \ A_{br}, \ \text{and} \ \text{favorable} \ (c) \ PI \text{ than Korean consumers.} \]

\[ H3: \text{When exposed to NCA, there will not be any significant difference in} \ (a) \ A_{ad}, \ \text{favorable} \ (b) \ A_{br}, \ \text{or} \ (c) \ PI \text{ between U.S. and Korean consumers.} \]

Culture and Self-Construals

A self-construal is conceptualized as a constellation of thoughts, feelings, and actions concerning the relationship of the self to others, and the self as distance from others (Singelis and Sharkey 1995). The concept of self is important in explaining individuals’ perceptions, evaluations, and behaviors (Markus and Kitayama 1991; Triandis 1989).
According to Markus and Kitayama (1991), there are two types of self-construals: independent and interdependent. An independent self-construal is defined as a unique entity that is organized with an emphasis on a person's own internal thoughts and feelings. An interdependent self-construal is defined as an entity that is closely intertwined with those of others and that is sensitive to, and contingent on, the thoughts, feelings, and actions of others.

Numerous researchers (e.g., Gudykunst et al. 1996; Kim et al. 1996; Singelis and Brown 1995) report that self-construals of individuals are shaped by cultural influences. Independent self-construals are representative of individualistic cultures, whereas interdependent self-construals are illustrative of collectivistic cultures (Gudykunst et al. 1996; Kim et al. 1996; Singelis and Sharkey 1995). Therefore, relatively highly individualistic U.S. consumers will be more likely to have independent self-construals and less likely to have interdependent self-construals than the relatively highly collectivistic Korean consumers, and vice versa.

The literature on self-construals suggests that it is fruitful to examine the dimensions of individualism and collectivism in more detail. Hofstede (1991) declared that extreme individualism and extreme collectivism can be considered as opposite poles in national culture. Most researchers seem to have accepted that position. But according to Kim (1994), actual data have not revealed these two types of people. They report that individualism and collectivism appear to represent two separate dimensions along which people vary. Other researchers have also noted that individualism and collectivism are likely to be separate dimensions rather than the polar opposites of a single dimension (Oyserman 1993). Kim et al. (1996) argued further that if there are two dimensions for individuals, there are also two dimensions for culture.

Moreover, all individuals within a culture are not identical. Indeed, there is substantial variation within a culture, and also considerable overlap among different cultures. Although mean differences between cultural groups are usually relatively modest (Smith and Bond 1994), there are, on average, relatively more examples of individualistic persons in a culture such as that of the United States, and relatively more examples of collectivistic persons in a culture such as that of Korea.

Self-Construals and Comparative Advertising Effectiveness

People with an independent self tend to be unique, strive for their own goals, express themselves, and be direct in communication (Markus and Kitayama 1991). The general tone of social interaction for people with independent self-construals reflects a tendency to be pointed, direct, clear, unambiguous, and concise in the choice of verbal tactics. Consequently, independent self-construals systematically increase the importance of outcome-oriented constraints (e.g., clarity and effectiveness), and guide choices in conversational strategies (Kim 1994).

People with relatively independent self-construals may (1) react more positively to comparative than noncomparative advertisements because they may perceive comparative advertisements to be more informative (Earl and Pride 1980; Pride, Lamb, and Pletcher 1979), (2) be more clear and focused (Wilkie and Farris 1975), and (3) use comparative advertising to help them differentiate the brands (Droge 1989). Probably that is why Grewal et al. (1997), in their meta-analysis of the U.S. comparative advertising literature, found that comparative advertisements are more effective than noncomparative advertisements in generating favorable brand attitudes and increased purchase intentions, despite finding that comparative advertisements generated less favorable $A_{af}$. Although little research has been done on the relations between self-construals and advertising effectiveness, Wilcox et al. (1996) reported that advertising presentations are related to the independent and interdependent self in Korean and U.S. students.

The above literature suggests that the collectivism dimension is related to an individual's tendency toward independence or interdependence, and that these self-construals mediate the effectiveness of comparative advertising. We therefore formulated the following hypothesis and tested it separately for DCA and ICA (see Figure 1):

**H4:** The effects of national culture on the effectiveness of DCA and ICA will be mediated by self-construals: (a) independent self will be positively related to $A_{af}$; (b) interdependent self will be negatively related to $A_{af}$.

**METHOD**

**Research Design**

A $2 \times 3$ between-subjects factorial design was used. The independent variables were the national cultures of Korea and the United States, and the type of advertising, that is, DCA, ICA, and NCA. The predicted variables were independent and interdependent self-construals, and $A_{af}$, $A_i$, and $PI$.

**Sample/Manipulation Check**

A total of 355 undergraduate students participated in the study, 176 in the United States and 179 in Korea. Students were considered to be an acceptable sample because the product (sports shoes) is used by students in about the same way and with about the same benefits in both Korea and the United States. Student samples have been widely used in compara-
Hypothesized Path Model of the Effects of National Culture and Self-Construals on Comparative Advertising

Note: National culture in this model is the degree of collectivism in each country. The United States was coded as 1 and Korea as 2. The first posited negative relationship is between national culture and independent self-construal. The first posited positive relationship is between national culture and interdependent self-construal. The second posited positive relationship is between independent self-construal and $A_{id}$. The second-posed negative relationship is between interdependent self-construal and $A_{id}$. (See H4.)

Measures
A contrast variable of national culture was created based on the degree of collectivism (1 = United States, low collectivism) and (2 = Korea, high collectivism) according to the empirical rankings of individualism/collectivism found by Hofstede (1991). Bond and Pang (1989) concluded that the "culture-level dimensions of Hofstede's Individualism, Power distance, and Masculinity are universal and pan-cultural in the sense that they can be identified by instruments developed out of very different traditions." Therefore, when both countries are put into the model as a dichotomous variable, the variable is the degree of collectivism in the national culture. Since existing research evidence has unveiled the robust dimension of collectivism in Korean culture and the core dimension of individualism in U.S. culture, no manipulation check was used.

To analyze individual-level differences, the self-construal scale developed by Kim and Leung (1997) was adapted to determine the independent or interdependent self-construal identities of the subjects. This scale consolidates the most salient elements from prior self-construal scales, and incorporates items reflecting concepts related to self-construals that have not been included in previous scales. This measurement instrument uses most items from the self-construal scale developed by Singelis (1994), the Independent and Interdependent Self-Construal (IISC) scales developed by Gudykunst et al. (1996), and the instruments used by Kim, Sharkey, and Singelis (1994). Responses to the items were measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Before the main experiment, stimulus materials were pre-tested on 24 U.S. participants. Participants understood the difference between a direct and an indirect comparison. For the manipulation check, U.S. and Korean participants were asked if there were any comparisons in the advertisement. A total of 33 out of 355 students gave wrong answers; they were excluded from the analysis. This process resulted in a final sample of 322 participants (165 U.S. students and 154 Koreans). The mean age of participants was 19.77 years for the U.S. sample, and 23.75 for the Korean sample. Males comprised about 58.1% of the sample (42.7% for the United States and 74.7% for Korea). Many males in Korea serve in the armed forces before completing university education, and this fact may account for the age differences between the samples. However, the age and gender differences did not have a significant effect on the dependent measures in the multivariate analysis of covariance (MANCOVA) (see the "Results" section). Also, the Korean sample was ethnically homogeneous and the U.S. sample was mostly white (87.7%), with only a few minorities.
TABLE I
Reliabilities of Variables by Treatment Conditions

<table>
<thead>
<tr>
<th></th>
<th>Direct comparative ad</th>
<th>Indirect comparative ad</th>
<th>Noncomparative ad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independence</td>
<td>.82</td>
<td>.84</td>
<td>.86</td>
</tr>
<tr>
<td>Interdependence</td>
<td>.63</td>
<td>.47</td>
<td>.47</td>
</tr>
<tr>
<td>A_p</td>
<td>.76</td>
<td>.71</td>
<td>.73</td>
</tr>
<tr>
<td>A_i</td>
<td>.91</td>
<td>.92</td>
<td>.90</td>
</tr>
<tr>
<td>PI</td>
<td>.92</td>
<td>.93</td>
<td>.91</td>
</tr>
<tr>
<td>n (sample size)</td>
<td>121</td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

negative, works well/works poorly, satisfactory/unsatisfactory, favorable/unfavorable, good/bad, and like/dislike. The scale items used were taken from scales used in previous research studies (Lutz and Belch 1983; Messmer 1979; Mitchell and Olson 1981; Osgood, Suci, and Tanneunbaum 1957).

3. A PI score was obtained from subjects' average ratings on three, seven-point scales: likely/unlikely, probable/improbable, and possible/impossible. The scale items used to measure purchase intention were taken from a scale of purchase intentions developed by Bearden, Lichtenstein, and Teel (1984).

The reliability of scales in each treatment condition was measured by coefficient $\alpha$ and reported in Table 1. The scales were found to be reliable, except for interdependence. For this construct, low reliability scores (ranging from .6 to .5) were also reported in previous studies (e.g., Kim et al. 1996). Since the coefficient $\alpha$ for interdependent self was low, correction for attenuation due to error of measurement was executed for each variable, and the corrected correlation coefficients were used in running the path analysis.

Equivalence of the Materials

To ensure equivalence in the language of the testing materials in Korean and English, the procedures recommended by Miracle and Bang (2002) were followed. The test advertisements and measuring instruments were produced in U.S. English first. Then a bilingual native Korean speaker translated the materials from their original form in English into Korean. Next, a bilingual native U.S. English speaker translated the Korean version back into English. Subsequently, the original English version and the back-translated English version were compared. When parts of the original English and the back-translated version did not match well, either the original English version or the Korean version was adjusted, and again translated, back translated, and adjusted until the translated Korean version was deemed equivalent to the original English version. The equivalent versions of the English and Korean advertisements were then rewritten in a polished manner by a professional copywriter so that they would appear to be actual advertisements.

Stimuli

Sports shoes were chosen as the product for this study because they are a personal product that is widely purchased and familiar to college students in both countries. Typically in DCA, a competing brand is compared with a market-leading brand. A fictitious competing brand ("Kinetic") was developed, to remove any possible confounds due to prior brand evaluation or brand knowledge. Because of its high market share in both countries (Global Industry Analysts 2003), the Nike brand was selected to be the leading brand. The Nike brand is similarly popular and maintains a relatively high price, both in the United States and in Korea. For the ICA, the Kinetic brand name was compared with unnamed "leading brands," without mentioning any specific competitors. The NCA contained neither direct nor indirect references to competitors.

Three-color print advertisements were developed for the three treatment conditions. Similar to the advertisements used by Manning et al. (2001), only the focal points in the message and graphics were manipulated. Other features in the advertisements such as size, color, layout, the Kinetic brand name, and headline were identical across treatments. In all treatment conditions, a single product attribute—shock protection capability—was presented in the message (see the test advertisements in Appendix C).

Data Collection Procedures

In both countries, subjects taking undergraduate university courses participated voluntarily in the experiments, which were conducted in a classroom setting. One of the three test advertisements was randomly distributed to each subject within a questionnaire booklet. All subjects first read an introduction in the booklet, and then looked at the advertisement. Subjects were reminded to read every component of
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TABLE 2
Tests of the Effects of Covariates and Independent Variables

<table>
<thead>
<tr>
<th>Source</th>
<th>Wilks’s $\lambda$</th>
<th>$F$ statistic</th>
<th>Significant $F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.99</td>
<td>0.48</td>
<td>0.69</td>
</tr>
<tr>
<td>Gender</td>
<td>0.99</td>
<td>1.48</td>
<td>0.22</td>
</tr>
<tr>
<td>National culture</td>
<td>0.94</td>
<td>6.10</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Ad type</td>
<td>0.96</td>
<td>2.28</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>National culture $\times$ ad type</td>
<td>0.99</td>
<td>0.56</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Univariate test of the effects of independent variables

<table>
<thead>
<tr>
<th>$A_{ad}$</th>
<th>$A_b$</th>
<th>$PI$</th>
</tr>
</thead>
<tbody>
<tr>
<td>National culture</td>
<td>38.17**</td>
<td>13.01**</td>
</tr>
<tr>
<td>Ad type</td>
<td>0.06</td>
<td>3.57*</td>
</tr>
<tr>
<td>National culture $\times$ ad type</td>
<td>0.11</td>
<td>0.522</td>
</tr>
</tbody>
</table>

* $F$ value is significant at $p < 0.05$.
** $F$ value is significant at $p < 0.001$.

the test advertisement, especially visuals and body copy. They worked through the booklet at their own pace, one page at a time in sequence, and then responded to the dependent measures, the scales measuring self-construals, and demographic items. A question to assess demand characteristics of the subjects was used to determine what they felt was the true purpose of the study. No one understood the exact purpose of the research. Finally, subjects were debriefed, thanked, and dismissed.

RESULTS

National Culture and Advertising Effectiveness

It was hypothesized that when exposed to DCA and ICA (H1 and H2, respectively), U.S. consumers would have more favorable (a) $A_{ad}$, (b) $A_b$, and (c) $PI$ than Korean consumers. When exposed to NCA (H3), it was expected that there would not be any significant differences between U.S. and Korean subjects in their $A_{ad}$, $A_b$, or $PI$. Since some of the demographic variables in the U.S. and Korean samples were not equal, multiple analysis of covariance was conducted to determine differences in dependent measures due to age or gender. None of the effects of covariates were significant (age: Wilks’s $\lambda = 0.99$, $F = 0.48$, $p = 0.699$; gender: Wilks’s $\lambda = 0.98$, $F = 1.48$, $p = 0.219$). All the assumptions for the analysis were met before the test was conducted.

The results showed significant main effects of national culture (Wilks’s $\lambda = 0.94$, $F = 6.09$, $p = 0.000$) and ad type (Wilks’s $\lambda = 0.96$, $F = 2.28$, $p = 0.035$), with no interaction effect (Wilks’s $\lambda = 0.99$, $F = 0.57$, $p = 0.757$). Consequently, the $2 \times 3$ univariate analysis of variance of national culture by type of advertising showed a substantial main effect of national culture on $A_{ad}$ ($F = 38.17$, $p = 0.000$) and $A_b$ ($F = 13.01$, $p = 0.000$). The main effect of advertisement type on $A_b$ ($F = 5.57$, $p = 0.029$) was also detected, but a post hoc test did not show any significant difference between treatment conditions. None of the independent variables had a significant effect on $PI$, and there was no interaction effect on any of the dependent measures (see Table 2).

To address the hypotheses more specifically, one-way analysis of variance was conducted for each of the dependent variables, with national culture as the independent variable for each type of advertising. The cell means and significance tests are summarized in Table 3. When exposed to DCA, U.S. subjects had more favorable $A_{ad}$ (M = 4.70) and $A_b$ (M = 4.54) than Korean subjects ($A_{ad}$: M = 3.95; $A_b$: M = 4.12). The mean differences were statistically significant for $A_{ad}$, $F(1, 119) = 16.35$, $p < 0.05$, and $A_b$, $F(1, 119) = 7.55$, $p < 0.05$, but not for $PI$. Therefore, H1a and H1b were supported, but H1c was rejected: U.S. subjects had more favorable $A_{ad}$ and $A_b$ than Koreans when DCA was used, but there were no significant differences in $PI$.

When subjects were exposed to ICA, U.S. subjects had more favorable $A_{ad}$ (M = 4.70) and $A_b$ (M = 4.35) than Korean subjects ($A_{ad}$: M = 4.01; $A_b$: M = 3.77). The mean differences were statistically significant for $A_{ad}$, $F(1, 99) = 13.86$, $p < 0.05$, and for $A_b$, $F(1, 99) = 7.55$, $p < 0.05$, but not for $PI$. Therefore, H2a and H2b were supported, but H2c was rejected: U.S. subjects had more favorable $A_{ad}$ and $A_b$ than Koreans when ICA was used, but there were no significant differences in $PI$. 
TABLE 3
Descriptive Statistics for Each Dependent Variable, Broken Down by Experimental Conditions

<table>
<thead>
<tr>
<th>Ad type</th>
<th>DCA</th>
<th>ICA</th>
<th>NCA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United States</td>
<td>Korea</td>
<td>United States</td>
</tr>
<tr>
<td>$A_{ad}$</td>
<td>$M = 4.70^{**}$ (SD = .91)</td>
<td>$M = 3.95^{**}$ (SD = 1.11)</td>
<td>$M = 4.70^{**}$ (SD = .82)</td>
</tr>
<tr>
<td>$A_b$</td>
<td>$M = 4.54^{**}$ (SD = .99)</td>
<td>$M = 4.12^{**}$ (SD = 1.06)</td>
<td>$M = 4.35^{**}$ (SD = 1.02)</td>
</tr>
<tr>
<td>$PI$</td>
<td>$M = 3.10$ (SD = 1.41)</td>
<td>$M = 3.42$ (SD = 1.37)</td>
<td>$M = 2.85$ (SD = 1.48)</td>
</tr>
</tbody>
</table>

Note: DCA = direct comparative advertising; ICA = indirect comparative advertising; NCA = noncomparative advertising.

* Means are significantly different at $p < .05$ for their respective dependent variables in each treatment condition.

** Means are significantly different at $p < .001$ for their respective dependent variables in each treatment condition.

When exposed to NCA, U.S. subjects had more favorable $A_{ad}$ ($M = 4.62$) than Korean subjects ($M = 3.99$), with a significant mean difference, $F(1, 98) = 9.25, p < .05$. But $A_b$ and $PI$ were not significantly different. Therefore, $H3a$ was rejected and $H3b$ and $H3c$ were supported: U.S. subjects had more favorable $A_{ad}$ than Koreans when NCAs were used, but there were no significant differences between U.S. and Korean subjects in $A_b$ and $PI$.

These results suggest that DCA and ICA are viewed more positively with respect to $A_{ad}$ and $A_b$ in the relatively less collectivistic culture of the United States than in the relatively more collectivistic Korean culture. However, there was no significant difference in the effects of DCA and ICA on $PI$ in the two cultures.

Test of Models and Structural Relations

It was found that national culture has a different impact on $A_{ad}$ and $A_b$, depending on the type of advertising used. To investigate the nature of the process underlying this cultural impact, path analyses were conducted. The model (see Figure 1) suggested that national culture may be mediated by self-construals such that it will have an effect on $A_{ad}$, and the effect on $A_{ad}$ will then influence $A_b$, and then $PI$.

To explore the nature of these processes, the correlations among all the variables were examined separately by advertising treatment condition. For use in the path analysis, a full correlation matrix with correlations uncorrected and corrected for attenuation due to error of measurement is provided in Table 4.

It was hypothesized ($H4$) that the effects of national culture on the effectiveness of DCA and ICA would be mediated by self-construals, and that advertising effectiveness ($A_{ad}$, $A_b$, and $PI$), in turn, would be a function of self-construals.

The path models, with path coefficients, are presented in Figure 2. Strong path coefficients were found between national culture and self-construals in all treatment conditions. National culture was negatively associated with independent self-construals and positively associated with interdependent self-construals. This finding means that relatively more U.S. subjects had relatively high independent self-construals, whereas Koreans were more likely to have relatively high interdependent self-construals. This result is consistent with prior theory.

The effect of self-construals as a mediator of national culture was different by treatment conditions. For DCA, the path model specified in Figure 1 resulted in large errors and was not consistent with the data (overall $\chi^2 = 34.09$, $df = 9$, $p < .05$). Therefore, the mediating role of either independent self-construals or interdependent self-construals on $A_{ad}$ was not supported, and the data are not included in Figure 2.

For ICA, the overall $\chi^2$ goodness-of-fit test yielded a non-
significant $\chi^2$ value for the indirect comparative advertising model ($\chi^2 = 12.87, df = 9, p > .05$). This result suggested a good fit of the mediating role of self-construals to the data. The data indicate that the error generated by the model was neither substantial nor statistically significant. As hypothesized, the effect of national culture was mediated by self-construals; independent self was positively related to $A_{ad}$ (r = .22) and interdependent self had a negative relation to $A_{ad}$ (r = -.38). Therefore, H4a and H4b were fully supported in the case of ICA.

For NCA, although not hypothesized, a mediating role of self-construals between national culture and $A_{ad}$ was also found. The overall fit of the model was consistent with the data ($\chi^2 = 11.36, df = 9, p > .05$). In the model, both independence (r = .35) and interdependence (r = .26) of self-construals had positive impacts on $A_{ad}$.

Overall, these results show the role of self-construals as mediators between national culture and advertising effectiveness. The mediating role of self-construals was found for ICA and NCA, but not for DCA. For ICA, the direction of the relationship between independence and $A_{ad}$ was positive, and the relationship between interdependence and $A_{ad}$ was negative, as the literature would lead one to predict.

**DISCUSSION AND CONCLUSIONS**

The first main finding was that national culture had a significant main effect. As expected, national culture was found to be more important in shaping consumers' reactions to comparative advertising than to noncomparative advertising. However, the more favorable $A_{ad}$ rating from U.S. subjects when NCA was used might be due to the possibility that overall attitudes of U.S. consumers toward advertising are more favorable than those of Korean consumers. Confucian antimaterialistic values may influence Koreans to place more emphasis on spiritual values (Paik 1990), and may cause them to be less favorable to advertising practices that result in earning a profit.

In addition, path analysis illuminated the underlying pro-
cess between national culture, self-construals, and the relative effectiveness of DCA, ICA, and NCA. For DCA, national culture affected advertising effectiveness directly rather than being mediated by self-construals, while the mediating model was consistent with the data for ICA and NCA. There may be many reasons for this finding. For example, subjects' message involvement or perceived message believability for the test advertisements may have moderated the relationship between self-construals and $A_{ij}$ (e.g., Belch 1981; Muehling, Stoltman, and Grossbarr 1990). Product characteristics used in this study may be another moderator. For example, Han and Shavitt (1994) found that cultural differences were more evident with products that tend to be purchased and used with others, as opposed to products that are typically purchased and used individually. Other types of personality variables, such as introvert or extravert tendencies, or individual ways of feeling, judging, and perceiving, could confound the effects of self-construals on the effectiveness of DCA (Bennett 1997). Novelty effect is another possibility, due to the relative newness of DCA in the Korean market (Jeon and Beatty 2002).

In the ICA model, the mediating role of self-construals indicates that regardless of subjects' country of origin, the higher the independence of the individual, the more favorably he or she responded to ICA. In contrast, the higher the interdependence of the individual, the less favorably he or she responded to ICA. This result goes beyond simply showing that differences in national culture influence advertising effectiveness, and provides deeper understanding as to why there are cross-cultural differences in response to comparative advertising messages.

In the NCA model, the mediating role of self-construals was also supported. This confirms that self-construals are a valid measure to identify target consumers' individual characteristics as a means to predict their response to advertising messages in a cross-cultural setting. Since the direction of relationships between all self-construals and $A_{ij}$ was positive, it may be concluded that when individuals' self-construals are more distinctive (regardless of independence or interdependence), consumer attitudes or intentions derived from an advertisement may be held more strongly.

It is often assumed that comparative advertising is not popular in most Asian countries (Donthu 1998). Although it is legal in Korea, regulatory agencies have been reluctant to encourage comparative advertising because of concern about controversy and legal disputes following the use of this technique (Jeon and Beatty 2002; Miracle and Choi 1997). Knowledge garnered from the present study, however, may assist regulators in making public policy decisions. For example, in countries with collectivistic cultures that now prohibit all comparative advertising, there may be target audiences that have independent self-construals, and such audiences may be favorably disposed toward ICA but not toward DCA. Therefore, regulators may have evidence that will cause them to permit ICA but not DCA.

Finally, advertising managers in all countries might find it useful to do research to identify the effectiveness of advertising to consumers with varying levels of independent and interdependent self-construals. Advertising messages may often need to be fine-tuned to target consumers with independent or interdependent self-construals. Even within a country with a collectivistic culture, if a product is targeted to an audience with independent self-construals, the results of the present study indicate that comparative advertising can be an effective message strategy. Therefore, culture at the national level, individual-level values such as self-construals, and product attributes need to be considered in combination to make advertising messages more appealing to a local market.

**SUGGESTIONS FOR FUTURE RESEARCH**

International advertising researchers have often treated culture as a ubiquitous variable, using it to explain how a number of national and ethnic differences affect responses to advertising. This approach is problematic, however, because of varying levels of individual conformity to cultural norms (Triandis et al. 1985). National culture cannot explain the substantial variations within cultures (Kim et al. 1996). An understanding of the cross-cultural effectiveness of comparative advertising could benefit from more research on culture at the micro level, as it is psychologically internalized by individual consumers. Although this initial study unveils some important links between national culture, self-construals, and advertising effectiveness, it is just a beginning. Research into the relationships between culture, individual values, and the effects of various types of advertising needs to be broadened beyond the narrow confines of this study. This approach is exceedingly complex and will require additional research methodologies.

Future studies should be conducted in a range of cultures with varying levels of context, collectivism, and independent/interdependent self-construals. Studies should also include additional cultural dimensions (e.g., power distance, masculinity, uncertainty avoidance). Studies should also be conducted with various types of product categories (e.g., high- versus low-involvement products, individually used products versus products shared with others) and in other media (e.g., television, radio, the Internet). Although the use of a student sample was appropriate for this study, future studies should also use samples of consumers who are in the target markets for many other products. Such studies could increase the generalizability of self-construal theory, as well as its applicability to advertising public policy and advertising management.
REFERENCES


Paik, Wanki (1990), Korean Administrative Culture, Seoul: Korea University Press.


APPENDIX A

Self-Construal Scales

1. I should be judged on my own merit.
2. I voice my opinions in group discussions.
3. I feel uncomfortable disagreeing with my group.*
4. I conceal my negative emotions so I won’t cause unhappiness among the members of my group.*
5. My personal identity, independent of others, is very important to me.
6. I prefer to be self-reliant rather than dependent on others.
7. I act as a unique person, separate from others.
8. I don’t like depending on others.*
9. My relationships with those in my group are more important than my personal accomplishments.*
10. My happiness depends on the happiness of those in my group.
11. I often consider how I can be helpful to specific others in my group.*
12. I take responsibility for my own actions.*
13. It is important for me to act as an independent person.
14. I have an opinion about most things: I know what I like and I know what I don’t like.
15. I enjoy being unique and different from others.
16. I don’t change my opinions in conformity with those of the majority.
17. Speaking up in a work/task group is not a problem for me.*
18. Having a lively imagination is important to me.*
19. Understanding myself is a major goal in my life.
20. I enjoy being admired for my unique qualities.
21. I am careful to maintain harmony in my group.*
22. When with my group, I watch my words so I won’t offend anyone.
23. I would sacrifice my self-interests for the benefit of my group.*
24. I try to meet the demands of my group, even if it means controlling my own desires.
25. It is important to consult close friends and get their ideas before making decisions.
26. I should take into consideration my parents’ advice when making education and career plans.*

27. I act as fellow group members prefer I act.
28. The security of being an accepted member of a group is very important to me.*
29. If my brother or sisters fails, I feel responsible.*

Note: Independent self-construals: 1, 2, 5, 6, 7, 13, 14, 15, 16, 19, 20; interdependent self-construals: 10, 22, 24, 25, 27.

* Indicates that this item was not retained for the final analysis.

APPENDIX B

Measures of Advertising Effectiveness

**Attitude Toward Advertisement (A_{ad})**: 

1. Good — Bad
2. Interesting — Boring*
3. Informative — Uninformative*
4. Offensive — Nonoffensive*
5. Useful — Not useful
6. Positive — Negative
7. Convincing — Unconvincing*
8. Not irritating — Irritating
9. Unbelievable — Believable*
10. Favorable — Unfavorable*

**Attitude Toward the Brand (A)**:

11. Positive — Negative
12. Works well — Works poorly
13. Satisfactory — Unsatisfactory
14. Poor quality — Good quality*
15. Favorable — Unfavorable
16. Good — Bad
17. Like — Dislike

**Purchase Intention (PI)**:

18. Likely — Unlikely
19. Probable — Improbable
20. Possible — Impossible

* Indicates that this item was not retained for the final analysis.
APPENDIX C
Test Advertisements

Direct Comparative Advertisement

The ultimate soft shoe for feet that play hard

Indirect Comparative Advertisement

The ultimate soft shoe for feet that play hard

Noncomparative Advertisement

The ultimate soft shoe for feet that play hard