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Cross Cultural Responses To Humorous Advertising: An Individual Difference Perspective
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ABSTRACT
Given the propensity of advertisers to choose humorous appeals for television ads, there is a need to determine which elements of an ad can be standardized while retaining adequate levels of effectiveness. This study reports an experiment designed to investigate the influence of individual level culture and the psychological factors of Need for Cognition and Need for Humor for their impact on responses to humorous advertising in Australia, China and the U.S.. The results support the prediction that while individual differences influence responses, between country differences are not so large as to preclude successful use of humor in standardized advertising.

Humor is a constant feature of popular culture through movies, television programs, print and online entertainment. Estimates of the proportion of advertising intended to be humorous range from 15% to 36% with an increasing trend (Kelly and Solomon 1975; Weinberger et al. 1995). With current worldwide advertising spend at US$470 billion per annum (ZenithOptimedia 2011), a conservative estimate indicates that at least 24% of that includes humorous appeals (Weinberger and Spotts 1989).

Humor as a communication element has been found to be an important component of advertising in numerous countries (Eisend 2009; Weinberger and Gulas 1992). As humor is a universal dimension of culture (Lefcourt 2001) and with a world population that is both increasingly mobile (W.H.O. 2010) and consuming global media there is a need to determine whether humorous advertising can be standardized whilst retaining acceptable levels of effectiveness.

The purpose of this research is to demonstrate how standardization of humorous advertising can be undertaken successfully. We further the process of dissecting the constructions of ads and explicating which elements of such an ad can transfer across cultures and why they will travel well. With a focus on individual-level differences which affect consumer response to standardized humorous television commercials, we also contribute additional criteria for global consumer segmentation. The contexts chosen for this investigation were the United States, the People’s Republic of China and Australia, which enables examination of responses in situations of both minimal and maximal cultural difference.

The paper will first discuss the construct of humor and its use in advertising. We then link the construct to theoretical work from psychology and marketing on the influence of individual culture and other individual differences that impact on response to humorous advertising. Results from an experiment will then be presented in which humor theme in a standardized humorous ad was manipulated to determine an optimal point of effectiveness. After presenting the results of the study, the theoretical and practitioner implications of the research will be discussed.

THEORY AND HYPOTHESES
Humor and Culture
In order to further the process of determining standardization in humorous advertising across cultures, it is necessary first to clarify the link between humor and culture.

Henry Bowman, an anthropologist (1939: cited in Alford and Alford 1981, 150), concluded that humor is “a more or less elemental human reaction, and that the fundamental elements of humorous situations remain the same across cultures.” He determined that the content of humorous situations, however, varies from culture to culture. Alford and Alford (1981) worked with Murdock and White’s (1969) Standard Cross cultural Sample and expanded the data set to gain a probabilistic sample of world cultures, focused specifically on the concept of humor. They determined that “no society was reported to be without humor” (Alford and Alford 1981, 162).

Thus, while humor is acknowledged to be a universal element of culture (Lee and Lim 2008; Lefcourt 2001; Martin 2007), the content of humor may require adaptation when communicating in different cultural contexts.

Humor in Advertising
One of the few studies on humor in cross cultural advertising is that of Alden, Hoyer and Lee (1993) which utilized the underlying mechanism by which humor works to compare television advertisements from South Korea, Germany, Thailand and the United States. Their conclusions were that incongruity-resolution style humor is global, although execution may need adaptation (Alden et al. 1993, 72). The content analysis was able to determine advertiser choice of appeals, but not the effectiveness of those appeals for the audience.

Working from this base of a universal mechanism of humor (Alden et al. 1993) interest must then shift to exploring the transferability of executional elements of a standardized advertisement including investigation of audience response to thematic content of humorous ads. It is widely accepted that variation in audience response across national boundaries is often due to cultural differences and the influence of culture on individuals within a nation.

Culture
Extending work by Rokeach (1973) and others on the distinction and categorization of human values, Schwartz developed ten motivationally distinct basic values (Schwartz and Bilsky 1990) based on their importance as ‘guiding principles in your life’. A key theoretical advantage of the use of the Schwartz Value Survey (SVS) is that it is designed to capture and enable analysis of individual-level values as well as the more commonly collated culture-level values. The SVS has been used in studies which compare the values portrayed in advertising between cultures, e.g. (Zhang and Shavitt 2003), but little research investigates the impact of values on responses to the ads (e.g. Lee and Lim 2008). Guadkunst (1998) classified the ten dimensions identified through the SVS along the individualism/collectivism dimension. Five of the higher order values are seen as individualistic (achievement, hedonism, power, self-direction,
stimulation), three are collectivist (benevolence, conformity, tradition) and the remaining two are a combination (security, universalism).

The use of the individualism/collectivism dimension is of value in cross cultural advertising research as differences in audience response to an advertisement have been identified using this construct (e.g. Aaker and Williams 1998; Chan et al. 2007). As this research investigates responses at an individual level, the construct is technically idiocentrism/allocentrism (Triandis 2004) but we use the terms most familiar to readers.

A culture may be described as individualist or collectivist, but individuals within that culture may lie at any point along the continuum between the two extremes, with individuals gaining elements of their values from the institutions and society around them as well as from personal experiences (Briley and Aaker 2006; Schwartz 1994). Individualists tend to seek out stimulation, hedonism, self-direction and achievement while collectivists are more concerned with conformity to group norms, tradition and benevolence to in-group members (Gudykunst 1998). People who evince higher concern for the rights and privileges of individuals will tend to lower levels of concern for the group, or for anyone other than that individual. These characteristics will also influence responses to executional elements of an ad.

The diversity of appropriate expression of humor in its content (subject or theme of the humor); objects (who or what is the butt of the humor); forms (humor type); and humor specialists within a culture, is well documented (Alford and Alford 1981). The response to execution of humorous advertising in terms of theme preference, audio and visual elements will be impacted by individualist or collectivist values held by audience members.

While numerous content analyses have attempted to delineate important content or executional factors in advertising that may influence perceived humor, the methodology is restricted to determining advertiser choice of elements and cannot predict audience responses. Theme of humor as a content element of a humorous advertisement has not previously been investigated and this study investigates the influence of the level of aggression as a theme of humor. The aggressive theme is based on the target of the humor being an individual or group perceived as being different in some way. It may be about deriving amusement from the misfortunes of these ‘others’ (schadenfreude) or by actively seeking to ‘humiliate, embarrass or ridicule them in some way’ (Martin 2007, 18) thereby enhancing one’s own status or reinforcing group norms. Drawing from Freud (1905) and others, we expect that advertising themes which are aggressive towards, or denigrate ‘others’ even if intended to be humorous, will elicit perceived humor from individualists based on superiority, competitiveness and schadenfreude. In contrast, aggressive themes may lead to anxiety among collectivists as it degrades harmonious relations within society.

Thus, in testing how individual-level cultural values influence response to an advertisement, we expect that:

**H1** - The effect of individual culture on perceived humor will be moderated theme of humor

a. Subjects with high individualist values will perceive more humor in aggressive themes than in non-aggressive themes

b. Subjects with high collectivist values will perceive more humor in non-aggressive themes than in aggressive themes

c. Subjects with high individualist values will perceive more humor in aggressive themes than subjects with low individualist values.

d. Subjects with high collectivist values will perceive more humor in non-aggressive themes than subjects with low collectivist values.

**Individual Traits**

In addition to culture, there is a wide variety of individual differences which influence response to humorous appeals (Weinberger and Gulas 1992). Two that have been recognized as being of particular significance are the need for humor (Cline, Altsech, and Kellaris 2003) and the need for cognition (Zhang 1996a).

**Need for Humor.** Need for humor (NFH) is an individual difference variable which refers to a person’s motivation to seek out and process humorous stimuli (Galloway 2009). This construct was developed by Cline, Altsech and Kellaris (2003), based on a subset of the Need for Levity (NFL) scale created by Cline (1997). Further studies offer some evidence that an individual's need for humor plays a significant role in moderating attitudes. NFH appears to act as a motivator and high (vs. low) NFH individuals respond more favorably to humorous ads compared to non-humorous ads (Kellaris and Cline 2007). The nature of NFH as a personality trait (Cline et al. 2003) suggests that it will vary by individuals rather than by the influence of environment, and we suggest that it is an etic construct. This hypothesis is a replication of Cline et al (2003) with extension to a comparison in three diverse cultural contexts and the medium of television advertising. Therefore, the following is anticipated:

**H2** - The effect of perceived humor on advertising effectiveness will be moderated by an individual’s need for humor (NFH).

a. The higher the subject’s NFH, the stronger the positive relationship between perceived humor and ad effectiveness ($A_{hi} - A_{li}$).

b. The lower the subject’s NFH, the weaker the positive relationship between perceived humor and ad effectiveness ($A_{hi} - A_{li}$).

**Need for Cognition.** Need for Cognition (NFC) is a personality trait developed from the Elaboration Likelihood Model (ELM) (Cacioppo and Petty 1982). A series of four studies was performed to develop a scale for NFC and the trait was described as a predisposition for individuals to prefer to engage in effortful thinking, contingent upon situational variables. The original scale held 34 items but was revised to 18 items to increase efficiency (Cacioppo, Petty, and Chuang Feng 1984) The short form (18 item) of the NFC scale has been validated in numerous countries across Asia-Pacific (e.g. Chang 2007; Forsterlee and Ho 1999; Kao 1994) and the U.S. (e.g. Zhang and Buda 1999). Evidence from these studies suggests that the NFC scale is etic in nature with validity in each of the countries investigated in this study.

Further research on the role of NFC in responses to humorous advertising was undertaken by Cline et al. (2003) which suggested explanations for the differential processing of humorous appeals. The results showed that individuals high in NFC found an ad with higher humor content more amusing than did individuals with low NFC.

To date the examination of the impact of NFC on responses to humor in advertising has used print stimuli...
and been restricted to single culture studies (Cline et al. 2003; Geuens and De Pelsmacker 2002; Zhang 1996b). In order to test the cultural invariance of the influence of NFC on perceived humor, this study replicates previous work (Cline et al. 2003) with extension to a new medium with comparative analysis across cultures while examining the influence of NFC as a moderator. Thus, it is expected that:

**H3** - The effect of perceived humor on advertising effectiveness will be moderated by an individual’s need for cognition (NFC).

a. The higher the subject’s NFC, the stronger the positive relationship between perceived humor and ad effectiveness ($A_{PF}$, $A_{PI}$).

b. The lower the subject’s NFC, the weaker the positive relationship between perceived humor and ad effectiveness ($A_{PF}$, $A_{PI}$).

**METHOD**

**Overview**
The primary purpose of this study is to test the hypotheses that the effect of individual culture on perceived humor will be moderated by the theme of that humor and that the effect of perceived humor on advertising effectiveness will be moderated by both an individual’s need for cognition (NFC) and their need for humor (NFH). Hence, the study is a 2 (IDV High/Low) x 2 (COL High/Low) x 3 (Aggression None/Medium/High) quasi experiment of post test only design. We manipulate aggressive theme strength and measure NFH, NFC and individual-level culture. The dependent variables are perceived humor intensity and ad effectiveness measures.

**Participants.** Subjects were recruited through large universities in major cities in China (PRC), the United States (USA) and Australia (AUS). A total of 705 participants completed the experiment (PRC 211, USA 203, AUS 291) from business and engineering faculties. Age ranged from 18 - 47 (median 21) and included 55% female and 45% male respondents. Subjects were randomly assigned to conditions and received no incentive other than course credit in Australia and the USA.

To increase data collection equivalence we selected university students in major urban centers as our sampling frame. University students are acknowledged for their relative homogeneity as a group (Calder, Phillips, and Tybout 1981; Chan et al. 2007), with comparable education level, social class and age.

**Independent Variables.** Individual level culture was measured using a short form of the Schwartz Value Survey (SVS). Thirty items were included in this version, with 3 items from each of the 10 sub-dimensions of the original scale (see Table 1). For the Chinese sample, the Chinese version of the scale and demographic questions were adopted from the original back-translation of the SVS (Schwartz 1992). Internal reliability was achieved across all three samples ($\alpha = .86$): (PRC .81, AUS .82, USA .87). The individualism (IDV) and collectivism (COL) dimensions were identified using Gudykunst’s (1998) categorization. Each subscale had adequate internal reliability (IDV $\alpha = .82$, COL $\alpha = .76$).

Need for humor (NFH) was measured using a revised form of the scale developed by Cacioppo and Petty (1982; Cacioppo et al. 1984). Internal reliability for the scale was satisfactory and consistent across cultures (Cronbach’s $\alpha = .83$ (PRC .81, AUS .82, USA .82) and EFA indicated a single dominant factor (eigenvalues 4.336, 1.764 explaining 55.45% of variance). To capture extreme levels of NFH, participants were then categorized as either high or low in NFH based on a quartile split.

Need for cognition (NFC) was measured using the 18-item scale developed by Cacioppo and Petty (1982; Cacioppo et al. 1984). Internal reliability for the scale was satisfactory and consistent across cultures (Cronbach’s $\alpha = .83$ (PRC .81, AUS .82, USA .82) and EFA indicated a single dominant factor (eigenvalue 5.397 accounting for 29.98% of variance). Consistent with NFH, participants were categorized as either high or low in NFC based on a quartile split.

Construct equivalence for each scale was tested through translation/back translation (Brislin 1970) for the Chinese version. Measurement equivalence was ensured with consistent use of seven-point scales, and semantic differential anchors were tested with the back translation process.

**Stimulus.** To manipulate aggressive theme strength, we developed three versions of a television advertisement (highly aggressive, mildly aggressive and not aggressive) for a fictitious brand of energy drink. The stimulus advertisements were created with the assistance of an international advertising agency to ensure that production quality was as high as possible (Eisend 2009). A fictitious brand of energy drink was devised, selected from the product category which most commonly uses humor appeals. Energy drinks are a familiar product in all three national contexts, predominantly targeted at young, urban dwelling individuals, increasing functional equivalence of the product category selected.

The humor mechanism used in the ads was incongruity-resolution contrast (Raskin 1985). Agency creatives worked with the researchers to develop the product, brand, ad message and execution. Testing of concepts and specific ad elements was undertaken in parallel with the ad development process at all stages. In order to ensure that the ads were as equivalent as possible, bar the manipulation of theme, the ads were developed in a ‘donut’ format, with beginning and ending identical, and the middle sections encompassing the manipulation of escalating levels of aggressive theme. The ads were filmed with two Caucasian actors and voiceovers added for the Mandarin versions by two Chinese actors.

Conceptual equivalence testing of the stimulus was undertaken with a multicultural sample of university students in conjunction with manipulation testing which indicated that the manipulation was perceived accurately. Results from recall and comprehension items in the instrument indicated participant understanding of the key elements of the ad, confirmed through interviews with a small sample of participants.

**Dependent Measures.** Four quantitative dependent variables were measured in the study. Aad was measured...
with a seven-item, seven-point semantic differential scale (strongly persuasive/not at all persuasive, very appealing/not at all appealing, not easy to forget/easy to forget, effective/not effective, believable/not believable, informative/not informative, original/not original, with the 3rd, 5th and 6th items reverse-scaled, coefficient α = .92). A<sub>n</sub> was measured with a two-item scale (likable/unlikable, good/bad, α = .90). PI was measured with a single-item scale (likely/unlikely, α = .89).

Perceived humor strength was measured with a single-item seven-point semantic differential scale (I found this ad extremely funny/not at all funny). One item was included as an additional manipulation check, asking to what degree the central character in each ad displayed anger (high degree of anger/not at all angry).

**Procedure.** Participants were informed that the study was commissioned by a television production company concerned with their reactions to the first of a projected series of short documentaries. An 8 minute segment of a travel documentary was selected as the core of the treatment with both English and Mandarin audio tracks. Five filler ads and one version of the stimulus ad were placed around the documentary to form the treatment. Filler advertisements were selected from television ads never broadcast in the subject countries to control brand familiarity.

After watching the video, participants completed the NFH and NFC scales and the Schwartz Value Survey (SVS) with demographic indicators. Each ad was then shown individually, with participants recoding their responses on ad effectiveness measures (A<sub>ad</sub>, A<sub>n</sub>, PI), perceived humor strength and the manipulation of aggressive theme.

**RESULT**

**FIGURE 1** Means Plot Of Perceived Humor

![](image)

HIDV – subjects with highest 25% of individualist values
HCOL - subjects with highest 25% of collectivist values

To further explore this effect, the data was split by quartiles on IDV scores and regression analysis was performed by treatment condition. For Treatment 1 (no Aggression) and Treatment 2 (mild Aggression), no significant effects were observed. In Treatment 3, the interaction of IDV and Aggression was significant, indicating a pure moderator effect (Baron and Kenny 1986). The incremental increase in r-square (R<sup>2</sup> = .629) was significant, F (1, 45) = 90.943, p < .001, indicating that perceived humor varied with the level of Aggression; thus providing support for H1a.

**Manipulation checks**

A pretest of the manipulation of humor theme was conducted with 86 multicultural undergraduate marketing students at a major Australian university. An analysis of variance examined the impact of the theme treatment on perceived humor with four items assessing the perceived intensity of aggression/hostility, physical violence, laughing at someone’s pain, and the anger displayed in the ad. A significant difference was revealed between the three conditions on all four items (F = 43.22 – 13.82, df = 2.84, p < .001), indicating that aggression was perceived as increasing across the three levels of treatment.

One item on a seven-point semantic differential scale was included in the experimental instrument as an additional manipulation check, asking whether the main character in the ad displayed anger (high degree of anger/not at all angry). Perceived anger scores were subjected to analysis of variance by treatment condition (F = 54.338, df = 2, p < .001). All three means of the responses were significantly different from each other by the Tukey standard. The theme manipulation, therefore, achieved its desired effect.

**HYPOTHESIS TESTING**

Hypothesis 1 suggests that under low aggression conditions, high individualism (HIDV) subjects will perceive less humor than high collectivism (HCOL) subjects and under medium to severe aggression conditions, HIDV subjects will perceive greater humor in the ad than HCOL individuals.

A simple means comparison of PH by Treatment condition indicates the differing responses of HIDV and HCOL subjects to the level of Aggression in theme as illustrated in Figure 1:

The same process was followed testing COL as a potential moderator. COL alone was not a good predictor of PH (R<sup>2</sup> = .006), with an insignificant effect of adding Aggression (R<sup>2</sup> = .012) and no significant change when adding the interaction term (R<sup>2</sup> = .002, F (1, 701) = .296, p = .587). This indicates that the level of aggression of Theme does not moderate the effect of Collectivism on Perceived Humor and thus H1b is not supported.

A one-way between groups ANOVA was conducted to explore the impact of HIDV/LIDV on perceived humor when level of aggression in humor theme was high. There was no significant difference between groups on perceived humor (F (1, 119) = 2.045, p = .155) providing no support for H1c that subjects with high individualist values perceive more humor in aggressive themes than subjects with low individualist values.

A further one-way ANOVA was conducted to explore the impact of HCOL/LCOL on perceived humor when level of aggression of humor theme is low. There was no significant difference between groups (F (1, 112) = 3.773, p = .363) indicating that there is no support for H1d that subjects with high collectivist values perceive more humor in non-aggressive themes than subjects with low collectivist values.

Hypothesis 2 predicts that for subjects with high need for humor (HNHF), the influence of perceived humor (PH) on effectiveness measures will be positive and significant, while for low need for humor (LNFH) subjects, the effect will be positive but weaker (or non-significant). Using a quartile split, data on NFH was divided into HNFH (top 25% of scores), medium and LNFH (lowest 25% of scores). A means comparison of NFH by ad effectiveness...
measures (Aad, Ab, PI) indicates the differing responses of HNFH and LNHF subjects to the stimuli as illustrated in Figure 2.

From Figure 2 (Panel A), it can be seen how an individual’s NFH score influences their attitude to the ad. The variance in NFH scores indicates that higher NFH elicits a more strongly positive Aad. Figure 2 (Panels B and C) indicate a positive effect of higher NFH on attitude to the brand and purchase intention. Subsequently, three separate sets of moderated regression were run with Aad, Ab, and PI as the dependent variables, and PH and HNFH as the independent variables. Assumption testing indicated possible multicollinearity effects distorting results so all variables were mean centered (Aiken and West 1991).

Hypothesis 3 states that the positive influence of perceived humor on advert effectiveness will be moderated by an individual’s need for cognition (NFC). Using a quartile split, data on NFC was divided into HNFC and LNFC. A means comparison of NFC by ad effectiveness measures (Aad, Ab, PI) indicates the differing responses of HNFC and LNFC subjects to the stimuli as illustrated in Figure 2. From Figure 2 (Panel A), it can be seen that higher NFC elicits a slightly stronger positive Aad. In contrast, higher NFC is associated with decreased attitude to brand and purchase intention as illustrated in Figure 2 (Panels B and C).

Three separate sets of moderated regression were run with Aad, Ab, and PI as the dependent variables, and PH and HNFC/LNFC as the independent variables. The main effect of PH on Aad was significant and positive, though weaker for LNFC subjects. Neither the main effect nor any interactions with NFC were significant. The interaction of HNFC and PH was significant for Aad, thus, consistent with H3a, HNFC is a moderator for Aad but not for either Ab or PI.

While all interactions were positive for HNFC subjects, for LNFC subjects interactions were insignificant and both Aad and Ab were negative, indicating that LNFC weakened the relationship between PH and the dependent variables, providing support for H3b.

**DISCUSSION**

The purpose of our study was to determine how individual differences impact on responses to standardized humorous television advertising. Through the experimental design we were able to determine similarities and differences in audience reaction across three national cultural contexts.

The results partially support the proposition that individual-level culture on the dimension of individualism/collectivism has a positive impact on perceived humor in an ad, moderated by the level of aggression of the humor. Highly idiocentric individuals perceive more intense humor when aggression levels are high. This provides further evidence for the self orientation that derives pleasure from the pain or misfortune of others, or schadenfreude. While the most strongly positive perceptions of humor at high levels of aggression were found in the Chinese subjects, this may be at least partly attributable to the race of the actors in the stimulus ads. The concept of Europeans hurting each other could be seen as highly amusing as it does not violate the harmony of the Chinese race, and may play into stereotypes of violence portrayed in foreign entertainment media.

While collectivism is usually seen as the opposite end of the continuum to individualism, there was no moderating effect of level of aggressive theme on the relationship between allocentrism and perceived humor. These HCOL individuals did perceive greater humor in the non-aggressive condition, and the intensity of the humor declined as aggression increased, but the effect was not significant. Surprisingly, the greatest proportion of HCOL subjects was found in the United States (45.7%), with Australia close behind (39.9%) and the PRC a distant third
systematic exploration to determine the criteria for messages that are transferable across cultural borders while retaining effective levels of perceived humor.

REFERENCES


Cline, Thomas W., Moses B. Altsech, and James J. Kellaris (2003), "When Does Humor Enhance or Inhibit Ad Responses?" *Journal of Advertising*, 32 (3), 31-45.


