THE INFLUENCE OF AD MODEL ETHNICITY AND SELF-REFERENCING ON ATTITUDES

Evidence from New Zealand

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ABSTRACT: This paper examines consumer self-referencing as a mechanism for explaining ethnicity effects in advertising. Data was collected from a 2 (model ethnicity: Asian, white) × 2 (product stereotypicality: stereotypical, nonstereotypical) experiment. Measured independent variables included participant ethnicity and self-referencing. Results show that (1) Asians exhibit greater self-referencing of Asian models than do whites; (2) self-referencing mediates ethnicity effects on attitudes (i.e., attitude toward the model, attitude toward the ad, brand attitudes, and purchase intentions); (3) high–self-referencing Asians have more favorable attitude toward the ad and purchase intentions than low–self-referencing Asians; and (4) Asian models advertising atypical products generate more self-referencing and more favorable attitudes toward the model, A_{ad}, and purchase intentions from both Asians and whites.

A key consideration for marketers today is the changing face of society, particularly regarding ethnicity. For example, the ethnic group that is the focus of this paper—Asians—is a highly relevant minority for marketers. Asian Americans have the highest annual per-capita income of any U.S. demographic, earning $10,000 more than whites, and twice that of the next ethnic minority (Kinsman 2002). While a small minority group relative to African Americans and Hispanics, Asians are the fastest-growing ethnic group. By 2007, the Asian population in the United States is expected to increase by 19.6%, as compared with a 4.1% increase for the white majority, with a forecasted increase to 22 million people by 2020 (Kinsman 2002). Furthermore, their buying power from 2004 to 2009 is predicted to increase by 45% to $528 billion (Selig Center for Economic Growth 2004).

Although previous research has long recognized that ethnicity affects advertising evaluations (e.g., Szybillo and Jacoby 1974; Tolley and Goett 1971), we are lacking in understanding of the mechanisms by which ethnicity influences these perceptions. Scholars have proposed several theoretical explanations for ethnicity effects, such as ethnicity as a cue

(e.g., Whittler 1989), the influence of in-group biases (e.g., Williams, Qualls, and Grier 1995), and situational states of ethnic salience (e.g., Stayman and Deshpandé 1989).

This paper contends that a self-referencing perspective, which considers the extent to which consumers relate ad content to personal memories and experiences (Burnkrant and Unnava 1995), offers useful insights into how ethnicity and product stereotypicality influence consumer attitudes. This research contributes to a richer theoretical understanding of how ethnic minority and ethnic majority consumers react to ethnic minority models in advertising. Understanding this process provides insight into other advertising situations where ethnicity effects are manifested. Specifically, we examine how self-referencing mediates the influence of ethnicity on attitudes and intentions. In addition, this research examines product stereotypicality. Despite Taylor and Lee's (1994, p. 244) call for research in this area, the issue of product stereotypicality and ad model ethnicity has remained largely unexplored. Studying stereotypicality is important because researchers emphasize that we must move beyond studying ad model ethnicity in isolation; rather, we should also consider the advertised product (e.g., Williams, Qualls, and Grier 1995). The findings show that the use of a product not stereotypically associated with an ethnic minority has a fa-

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vorable impact on consumer self-referencing and attitudes.

Our objectives are twofold. First, we explore the role of self-referencing as a mediating variable of the effects of ethnicity on attitudes and intentions. Second, we study how ethnic stereotypes regarding product portrayals in advertising influence consumer attitudes for Asians and whites. It is important to note that while we recognize that the term "Asian" can subsume many different ethnic groups, consistent with prior literature, we use the term "Asian" for consumers of Chinese descent (e.g., Forehand and Deshpandé 2001) and "whites," for consumers of Anglo-European descent.

The structure of this paper is as follows. First, we define and review research on self-referencing. Second, we review ethnicity research, and the relation between self-referencing and ethnicity. Third, we consider ethnic stereotypes regarding product portrayals in advertising. Fourth, the research hypotheses, method, and results will be presented. Finally, we discuss the results, addressing limitations and avenues for future research.

BACKGROUND

Self-Referencing

Self-referencing is defined as a processing strategy where an individual processes information by relating a message, such as an advertisement, to his or her own self-structure (Burnkrant and Unnava 1995). Self-referencing is distinct from self-concept and perceived similarity. First, self-concept involves self-schemata, which reflect a consumer's definition of self and their knowledge of self (Wang et al. 2000). This self-schemata represents a multidimensional knowledge structure, of which ethnicity is a key dimension (McGuire et al. 1978). It is important to note that self-concept has been recognized as a fundamental frame of reference for consumer ad processing (e.g., Zinkhan and Hong 1991), and it is this aspect that differentiates self-concept from self-referencing. Self-referencing represents a cognitive process, where ad information is related to one's self-concept. In contrast, self-concept represents the frame of reference, but not the process, where aspects of one's sense of self—such as ethnicity—are activated. Likewise, scholars have suggested that this activation of the self is a key feature of self-referencing (Krishnamurthy and Sujan 1999).

Second, research on perceived similarity relates to theoretical accounts of categorization. A key feature of this research is an emphasis on consumer judgments of the similarity of two or more stimuli, based on shared and/or dissimilar characteristics (Ratneshwar et al. 2001). While an interesting stream of research in marketing has considered product categorizations (e.g., Ratneshwar et al. 2001), a vast body of research in psychology has studied perceived similarity in relation to judging people. This research shows that perceived similarity is positively associated with judgments of attractiveness (see Klohnen and Luo 2003). Simply put, people relate to those who are similar to themselves. From a theoretical perspective, perceived similarity represents a *judgment* of similarity, whereas self-referencing represents a cognitive *process* whereby ad information is related to the self. The outcome of self-referencing may, indeed, be a judgment of perceived similarity, but in this instance, self-referencing would represent a mechanism by which such a judgment could occur, rather than the nature of the judgment itself. Thus, self-referencing in advertising represents a form of processing where consumers relate ad information to their sense of self. Self-referencing has been found to result in increased levels of message elaboration (e.g., Burnkrant and Unnava 1995; Meyers-Levy and Peracchio 1996). From this perspective, an ad containing self-relevant information encourages elaboration and recall, as this information is more easily associated with previously stored information (Markus 1977).

Ethnicity and Self-Referencing

Under distinctiveness theory, which has been usefully utilized in past ethnicity research (e.g., Deshpandé and Stayman 1994; Forehand and Deshpandé 2001), ethnicity has been posited as a key dimension of self-concept (McGuire et al. 1978). It predicts that distinctiveness in a social environment acts as a determinant of perceptual selectivity. Specifically, an individual's distinctive characteristics will be more salient in relation to other people in the environment than shared characteristics will be. For example, if an Asian woman were to stand in a room with a group of white women, then distinctiveness theory suggests that ethnicity (i.e., the distinctive characteristic) rather than gender (i.e., the shared characteristic) would be regarded as salient. Likewise, ethnicity should be more salient in the self-concepts of ethnic minority individuals than ethnic majority individuals. To this end, research has found the salience of ethnicity to be higher for minority school children than for majority children (McGuire et al. 1978). Thus, in a multicultural environment, ethnic minority consumers are more likely to spontaneously evoke ethnicity-based identification to define themselves, and their ethnicity will be more salient in their self-concepts, than it will be for members of the ethnic majority (McGuire et al. 1978).

In terms of advertising, the judgments that consumers make when exposed to ads regarding similarities and dissimilarities, and the ability to picture oneself relative to the ad portrayal, are forms of self-referencing (Debevec and Iyer 1988). In line with this and distinctiveness theory, it follows that when consumers of a particular ethnic minority perceive an ethnic similarity between themselves and an advertising model of a similar ethnicity, this judgment will result in self-referencing.

Ethnic Stereotypes in Advertising

In addition to self-referencing and ethnicity, we also address ethnic stereotypes in advertising. Specifically, we consider consumer evaluations of ads where models endorse products that may be regarded as stereotypically associated (or not associated) with an ethnic minority. A stereotype is defined as a group's generalized beliefs about the personal attributes of members of another group, where those members are viewed as a generic type, rather than as specific individuals (see Taylor and Stern 1997).

The stereotypical view of Asian Americans often involves characteristics such as being hardworking, self-disciplined, outstanding in math and science, and having the ability to assimilate into American culture (Gitlin 2002; Kinsman 2002). This has resulted in Asians being viewed as expert consumers in certain product categories, such as products from Asian manufacturers (Cohen 1992). It is interesting to note that in a comprehensive content analysis of television advertising, Taylor and Stern (1997) found that Asians were more likely to be represented in ads related to affluence and working, rather than food and beverages or household supplies.

Some researchers have advocated the beneficial aspects of drawing on stereotypes in advertising. For instance, Courtney and Whipple (1983) emphasize the heuristic value of stereotypes as a quick means to reach a judgment. Therefore, accurate stereotypes can offer consumers a functional means of simplifying social interactions (Rossiter and Chan 1998). Scholars have also warned about the negative consequences of an overreliance on stereotypes in advertising (see, e.g., Taylor and Lee 1994; Taylor and Stern 1997). In particular, such depictions of minorities have the potential to perpetuate prejudice, and can bias ad processing where the depiction of an ethnic group member is evaluated based on a set of inaccurate beliefs about the entire ethnic group. It is important to note that portrayals not commonly associated with ethnic minority stereotypes have the potential to generate positive reactions among that ethnic group and other social groups (Taylor and Stern 1997).

RESEARCH HYPOTHESES

Ethnicity and Self-Referencing

Previous research suggests that when individuals process self-relevant information, they will engage in self-referencing (e.g., Burnkrant and Unnava 1995; Meyers-Levy and Peracchio 1996). Furthermore, research suggests that levels of consumer self-referencing can be influenced through the manipulation of ad photos (e.g., Burnkrant and Unnava 1995; Meyers-Levy and Peracchio 1996). Ethnicity is one aspect of the self, and for an ethnic minority group, distinctiveness theory (McGuire et al. 1978) posits that this aspect takes more prominence because of the social context (e.g., the consumer as a current member of an ethnic minority rather than of an ethnic majority). This heightens consumer awareness and perception of an ad with a model of a similar ethnicity, thus encouraging self-referencing. This leads to the following hypothesis:

> *H1: For ads showing Asian models, Asians will exhibit greater self-referencing than whites.*

Self-Referencing as a Mediating Variable

To investigate whether self-referencing is a viable explanation of how ethnic minority individuals evaluate ads with models of a similar ethnicity, we examined its mediating effects. Previous research suggests that self-referencing mediates the effect of a number of ad stimuli factors on attitudes and intentions, including a model's physical attractiveness (Debevec and Kernan 1987), sex-role portrayals (Debevec and Iyer 1988), and the verbal and visual elements of ads (Debevec and Romeo 1992). Likewise, we hypothesize:

> *H2: For Asians, as ethnic minority individuals, self-referencing (SR) acts as a mediator between the effect of the ethnicity of the ad model on attitude toward the model (A_{model}), attitude toward the ad (A_{ad}), brand attitudes (A_b) and purchase intentions (PI). Specifically, ethnicity should be positively associated with SR, and SR should be positively associated with A_{model}, A_{ad}, A_b, and PI.*

Self-Referencing and Attitudes

Since the affect associated with self-related structures gets transferred to the ad if the audience perceives a link between their self-structures and the stimulus (Sujan, Bettman, and Baumgartner 1993), the more individuals relate to the advertising message, the more positive their attitudes toward the advertised products (Burnkrant and Unnava 1995). Therefore, we hypothesize that

> *H3: Asians who experience high levels of self-referencing will exhibit more favorable A_{model}, A_{ad}, A_b and PI, than Asians who experience low levels of self-referencing.*

Ethnic Stereotypes

For product portrayal, ads with Asian models for product categories that contradict stereotypes could have the potential to attract attention and evoke positive reactions from Asians (Taylor and Stern 1997). In terms of the mechanism underlying this predicted effect, we propose that Asians and whites will exhibit greater self-referencing when exposed to an Asian model advertising an atypical product, as opposed to an Asian model advertising a stereotypical product. The rationale for

FIGURE 1
Model of Proposed Variable Relations for Participants Exposed to Ads with Asian Models
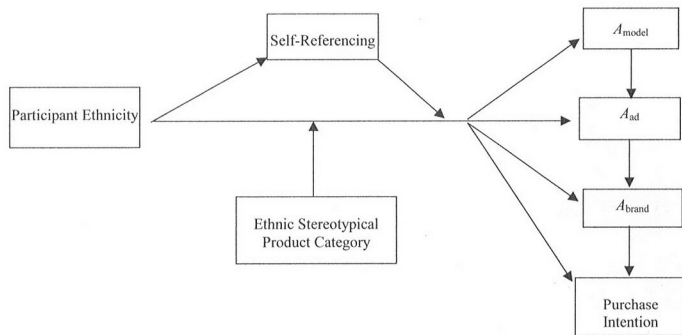
this prediction draws on the research of Debevec and Iyer (1988). In a study of gender differences, they found that exposure to nontraditional sex role portrayals resulted in higher levels of self-referencing than exposure to traditional (i.e., stereotypical) sex role portrayals. Given that both gender and ethnicity can be regarded as central dimensions of self (McGuire et al. 1978), we posit that self-referencing can be invoked by nonstereotypical representations.

Furthermore, stereotypical portrayals may encourage participants to simply evoke a stored stereotype with limited processing. In contrast, the incongruency of an atypical portrayal may elicit more cognitive effort (Maheswaran and Chaiken 1991). Given that self-referencing is manifested under conditions of increased elaboration (see, e.g., Bosmans et al. 2001), atypical portrayals may encourage consumers to self-reference by generating associations between the ad information and information stored in memory, to aid in giving the new information meaning (Debevec and Romeo 1992). Overall, we propose that Asian models depicted in nonstereotypical portrayals should result in more favorable evaluations and greater self-referencing than stereotypical portrayals. Hence, we hypothesize:

H4a: Advertisements featuring an Asian model will generate more favorable A_{model}, A_{ad}, A_b, and PI when the product advertised is a non-ethnic stereotypical product category (i.e., an atypical product) rather than an ethnic stereotypical product category.

H4b: Advertisements featuring an Asian model advertising an atypical product will generate higher levels of self-referencing among Asians and whites than exposure to an Asian model advertising a stereotypical product category.

METHOD

Research Design and Procedure

The experimental design involved two treatment variables, specifically, a 2 (ethnicity of the model: Asian, white) × 2

(product stereotypicality: stereotypical, nonstereotypical) between-subjects factorial design. Other independent variables that were measured rather than manipulated, and used to test hypotheses, included subject ethnicity (Asian, white) and self-referencing (low, high). A model of the variables analyzed in this paper is displayed in Figure 1. Participants were asked to participate in a study of advertising effectiveness. They read three print ads in their own time and completed a questionnaire. The entire procedure lasted 25 minutes. Participants were debriefed, and as a token of thanks, were given a surprise chocolate bar.

Participants and Research Context

One hundred and twenty-two undergraduate business students from a major university in New Zealand participated in the study (66 whites, 56 Asians), with participants randomly assigned to one of the four experimental conditions. New Zealand is a country of 3.8 million people, located 995 miles southeast of Australia in the southern Pacific ocean. It is 104,454 square miles in size, making it similar in area to Colorado (104,100 square miles), and larger than the United Kingdom (93,643 square miles).

New Zealand offers a relevant context to study, owing to its similarity to the United States for Asian minority consumers. For example, by 2007, Asians are forecasted to comprise nearly 5% of the American population (Williamson 2002). Likewise, Asians currently represent 5% of the New Zealand population, and like the United States, Asians represent New Zealand's fastest-growing ethnic minority group (*Statistics New Zealand* 2002). Furthermore, as with the United States, Chinese represent the largest majority group within those people classifying themselves as citizens of Asian descent. Specifically, Chinese represent 52.8% of Asian Americans (Gitlin 2002), and 56.25% of Asian New Zealanders (*Statistics New Zealand* 1996). It is important to note that the data collection of our research focused on Chinese consumers, rather than including other ethnic groups (e.g., Indian, Sri Lankan, Japanese, Korean) to avoid any effects that could be caused by cultural differences when aggregating ethnic and national groups together under the Asian label.

Experimental Stimuli Development

Pretest 1

This pretest determined appropriate models for the ad model ethnicity treatments. Six facial photographs of female models (three Asian, three white) were selected from overseas magazines. Since previous research suggests that physical attractiveness can result in differences in self-referencing (Debevec

and Kernan 1987), 60 undergraduate students, excluded from the main study, rated model attractiveness on a seven-point scale (1 = very attractive, 7 = very unattractive). Consequently, an Asian model and a white model were selected that revealed no significant differences in perceived attractiveness ($p > .10$).

Pretest 2

This pretest aimed to identify products stereotypically advertised using Asian models. Following ethnic stereotyping research, which has used open-ended questions (e.g., Esses and Zanna 1995), 30 participants, excluded from the main study, responded to four open-ended questions relating to the product categories of ads in which Asian models are often represented, the settings of ads in which Asian models are often depicted, the relationship with other characters in ads, and the occupational portrayals of Asian models. The resulting data yielded 16 products. Six additional products were then identified from the ethnic stereotyping literature (e.g., Lee and Tse 1994) as being stereotypical or nonstereotypical for Asian models. These products were added to the 16 products derived from primary data collection, resulting in a list of 22 products.

Next, 30 participants rated each product on two, five-point scales that measured the extent to which they commonly associated the product with a female Asian model and a female white model, respectively (1 = not at all, 5 = to a very great extent). Results revealed that green tea was more commonly associated with Asian models ($M_{Asian} = 2.95$, $M_{white} = 1.95$, $t = 2.79$, $p < .05$), whereas shampoo was more commonly associated with white models ($M_{white} = 4.55$, $M_{Asian} = 2.05$, $t = 9.13$, $p < .05$). Consequently, green tea was selected as the stereotypical product, and shampoo as the nonstereotypical product for Asian models.

Independent Variables

Each ad contained either an Asian model or a white model. With the aid of a graphic designer, the facial snapshots for these models were each superimposed onto an identical body. This resulted in ads with a matching background and models with identical figures, with the only difference being ethnicity (see example in Appendix). To enhance ecological validity, ad copy was adapted from overseas magazines and pretested to ensure that participants had not seen these ads. Likewise, pretested fictitious brand names for the green tea ("Evergreen") and shampoo ("Alive"), respectively, were used to avoid the influence of preexisting brand inferences. Ads were printed on glossy paper to make them as realistic as possible. To avoid potential confounding effects from participants self-referencing models in the filler ads, neither of the filler ads contained human models.

Mediating Variable

Self-referencing was assessed on seven, five-point scales adapted from previous research (see, e.g., Burnkrant and Unnava 1995; Debevec and Iyer 1988; Debevec and Romeo 1992; Meyers-Levy and Peracchio 1996). Specifically, "The ad made me think about my personal experiences with the product," "The ad seemed to relate to me personally," "I can easily relate myself to the advertising model," "The ad seemed to be written with me in mind," "I can easily form similarity judgments between myself and the advertising model," "I can easily picture myself using the product portrayed in the ad," and "The advertising model speaks for a group of which I am a member," anchored by strongly disagree/strongly agree (Cronbach's $\alpha = .88$). Factor analyses were performed on all variables consisting of three or more items. Since all variables loaded onto single factors and formed reliable scales, the items were averaged for analyses.

Dependent Variables and Other Measures

Attitude toward the ad (A_{ad}) was measured on seven, five-point scales (bad/good, unconvincing/convincing, uninformative/informative, not interesting/interesting, unpleasant/pleasant, not likeable/likeable, not enjoyable/enjoyable, Cronbach's $\alpha = .85$) adapted from previous research (Holbrook and Batra 1987; Krishnamurthy and Sujan 1999). Attitude toward the model (A_{model}) was measured on five, five-point scales (not believable/very believable, not attractive/very attractive, not competent/very competent, not persuasive/very persuasive, not likeable/very likeable, Cronbach's $\alpha = .80$) sourced from research by Williams and colleagues (e.g., Williams and Qualls 1989; Williams, Qualls, and Grier 1995).

Attitude toward the brand (A_b) was measured on four, five-point scales (bad/good, dislike/like, unpleasant/pleasant, inferior/superior, Cronbach's $\alpha = .79$) adapted from Batra and Stephens (1994). Purchase intentions were measured on three, five-point scales (improbable/probable, unlikely/likely, impossible/possible, Cronbach's $\alpha = .87$) from MacKenzie, Lutz, and Belch (1986). We also measured the demographics of gender, age, and income.

RESULTS

Confounding Check

To test the possibility that Asians and whites may have differed in their perceptions of model attractiveness, we studied participant responses to a five-point item that assessed perceived model attractiveness (1 = not attractive, 5 = very attractive). Both Asians and whites regarded the models as equally attractive ($p > .17$), and neither Asians nor whites re-

garded models of a particular ethnicity as more attractive than the other (p = .11). Thus, ethnicity differences in perceived model attractiveness are unlikely to explain treatment effects on the dependent variables.

Hypothesis Testing

Hypothesis 1 posits that Asians will exhibit greater self-referencing of ads showing Asian models than will white participants. Consistent with expectations, Asians who were exposed to the Asian model self-referenced more strongly than whites exposed to the Asian model, M_{Asian} = 2.38, SD_{Asian} = .81, versus M_{white} = 1.68, SD_{white} = .65, $F(1, 61)$ = 14.54, p < .001, ω^2 = .18. Cohen (1977) suggests that effect sizes .01, .06, and .14 can be classified as small, medium, and large, respectively. By this criteria, this represents a large effect, particularly since consumer researchers have stated that smaller effect sizes are to be expected for laboratory experiments (Fern and Monroe 1996; Peterson, Albaum, and Beltramini 1985). Furthermore, when exposed to ads featuring white models, no significant differences in self-referencing scores were evident between Asians and whites, M_{Asian} = 2.23, SD_{Asian} = .86, versus M_{white} = 1.89, SD_{white} = .74, $F(1, 53)$ = 2.41, p > .12. This suggests that unlike Asians, whites—as members of the ethnic majority—do not self-reference more strongly than Asians when exposed to ads featuring models of the same ethnicity. This result supports Grier and Brumbaugh (1999), who suggest that "whiteness" in an ad (e.g., model ethnicity) is unlikely to be regarded as a meaningful cue by white ethnic majority consumers.

While the focus of our study is on ad model ethnicity as a source of spontaneous self-referencing, we investigated whether other visible ad cues may elicit self-referencing responses from participants. Specifically, recent research in psychology by Morrison and Shaffer (2003) suggests that gender cues may induce self-referencing. Thus, female participants may have self-referenced the ad to a greater degree than male participants, since the models in the ads were female. However, analysis of variance (ANOVA) with gender as an independent variable (i.e., gender × model ethnicity × participant ethnicity) yielded no gender differences in self-referencing between the different ad model ethnicity conditions (p > .23).

Hypothesis 2 tested the mediation effects of SR on attitudes. A set of regression analyses was performed (see Figure 2) following the recommendations of Baron and Kenny (1986). Structural equation modeling was not used, as ethnicity represented a single-item variable (Gerbing and Anderson 1988). This hypothesis was tested using participants who were exposed to the Asian model since there were no effects on participants when exposed to the white model. Regression results first revealed a significant difference in SR between Asian and white participants (β = .44, p < .01, Figure 2, Path A), sug-

FIGURE 2
Estimation of the Self-Referencing Mediation Path Coefficients for Participants Exposed to Ads with Asian Models
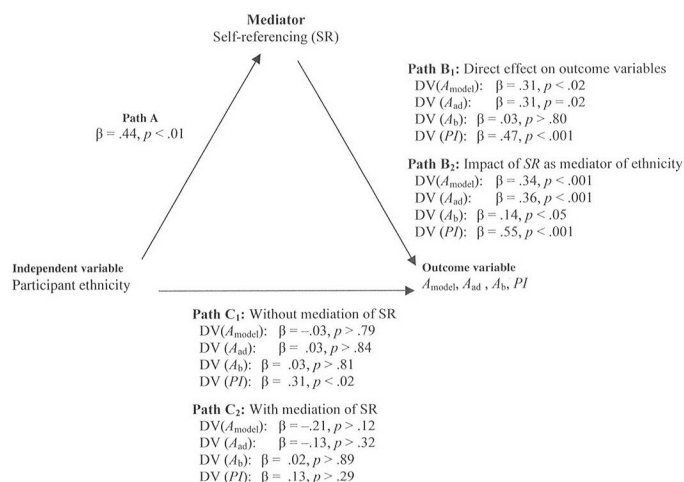
Note: DV = dependent variable.

gesting a strong relation between participant ethnicity and SR. Next, the impact of the mediator, SR, on the dependent variables was assessed (Figure 2, Path B_1). This revealed significant associations with A_{model} (β = .31, p < .02), A_{ad} (β = .31, p = .02), PI (β = .47, p < .001), but not for A_b (β = .03, p > .80).

The next step involved testing the relation between participant ethnicity and the dependent variables. This effect was significant for purchase intentions (β = .31, p < .02; see Figure 2, Path C_1), but not for the other variables (p > .79). The third step involved the simultaneous analysis of the effect of ethnicity and the hypothesized mediator, SR, on A_{model}, A_{ad}, A_b, and PI. It is important to note that SR continued to influence A_{model} (β = .34, p < .001), A_{ad} (β = .36, p < .001), PI (β = .55, p < .001), and became a significant influence on A_b (β = .14, p < .05; see Figure 2, Path B_2). The effect of participant ethnicity was also no longer significant for PI (β = .13, p > .29; see Figure 2, Path C_2). This result suggests that consistent with H2, SR levels mediate the effects of ethnicity (Baron and Kenny 1986). Furthermore, consistent with previous research on A_{ad} (e.g., MacKenzie, Lutz, and Belch 1986), A_{ad} was positively associated with A_b (r = .37, p < .001), and A_b was significantly associated with PI (r = .30, p = .001). A_{model} was most strongly associated with A_{ad} (r = .61, p < .001).

Hypothesis 3 proposes that Asians with high levels of SR will exhibit more favorable attitudes and intentions. Self-referencing was treated as a measured independent variable following a median-split procedure (median = 2.22), as in previous research (e.g., Batra and Stayman 1990; Mantel and Kardes 1999). ANOVA revealed a significant main effect for self-referencing on A_{ad}, $F(1, 50)$ = 4.80, p < .05, ω^2 = .07, and

TABLE 1
Means and Standard Deviations for Attitudes and Intentions
Categorized by Participant Ethnicity and Levels of Self-Referencing

Dependent measure	Subject ethnicity	
	Asians	Whites
Attitude toward the model (A_{model})		
High self-referencing	3.29	3.43
	(.60)	(.53)
Low self-referencing	2.97	3.23
	(.69)	(.65)
Significance	$p > .07$	$p > .19$
Attitude toward the ad (A_{ad})		
High self-referencing	3.20	3.09
	(.67)	(.50)
Low self-referencing	2.77	2.96
	(.74)	(.49)
Significance	$p < .05$	$p > .32$
Brand attitudes (A_b)		
High self-referencing	3.21	3.18
	(.68)	(.48)
Low self-referencing	3.08	3.15
	(.55)	(.48)
Significance	$p > .43$	$p > .83$
Purchase intentions (PI)		
High self-referencing	3.08	2.51
	(1.02)	(.87)
Low self-referencing	2.42	1.94
	(.82)	(.64)
Significance	$p < .02$	$p < .01$

Note: Standard deviations are in parentheses.

a medium-large effect for *PI*, $F(1, 50) = 6.48$, $p < .02$, $\omega^2 = .10$. As displayed in Table 1, high–self-referencing Asians reported more positive A_{ad} and purchase intentions than low–self-referencing individuals (A_{ad}: $M_{high\ self-referencer} = 3.20$, versus $M_{low\ self-referencer} = 2.77$). No significant effects were evident for the other variables ($p > .07$), however. Thus, there is partial support for H3. Although our focus was on ethnic minority individuals (i.e., Asians) and their responses to advertising, we also studied the evaluations of high– and low–self-referencing whites (see Table 1). This analysis yielded a significant difference for purchase intentions, where high-*SR* whites were more likely to buy the advertised product, than low-*SR* whites, $F(1, 55) = 7.73$, $p < .01$, $\omega^2 = .11$. No other main effects were significant ($p > .19$).

Hypothesis 4a predicts that the type of product featured in ads with Asian models will affect a consumer's evaluation of the model and the ad. In this study, the product stereotypically advertised using Asian models was green tea, and the atypical (i.e., nonstereotypical) product was shampoo. This hypothesis was tested by pooling the Asian and white students together. As displayed in Table 2, ANOVA

indicated that ads featuring an Asian model advertising an atypical product resulted in more favorable attitudes toward the model, $M_{atypical} = 3.38$, versus $M_{stereotypical} = 3.00$, $F(1, 59) = 3.91$, $p = .05$, $\omega^2 = .03$; A_{ad}, $M_{atypical} = 3.23$, versus $M_{stereotypical} = 2.84$, $F(1, 59) = 6.03$, $p < .02$, $\omega^2 = .07$; and purchase intentions, $M_{atypical} = 2.54$, versus $M_{stereotypical} = 2.07$, $F(1, 59) = 4.08$, $p < .05$, $\omega^2 = .04$. Yet no significant difference was evident for brand attitudes ($p > .30$). Thus, these results supported H4a. We also conducted similar analyses for the white model data but no differences were significant (p's $> .40$).

H4b posits that both Asians and whites will exhibit greater self-referencing when exposed to an Asian model advertising an atypical product, rather than an Asian model advertising a stereotypical product. Consistent with expectations, a significant main effect for product stereotypicality revealed that using Asian models with atypical products results in greater self-referencing for both Asian and white participants, $M_{atypical} = 2.18$, versus $M_{stereotypical} = 1.80$, $F(1, 59) = 3.99$, $p = .05$, $\omega^2 = .04$. This result did not differ by participant ethnicity ($p > .19$). Thus, using an Asian model with an atypi-

TABLE 2
Means and Standard Deviations for Attitudes and Intentions Categorized by Product Stereotypicality for Ads with Asian Models

Dependent measure	Product stereotypicality		
	Atypical product	Stereotypical product	Significance
Attitude toward the model (A_{model})	3.38	3.00	$p = .05$
	(.37)	(.36)	
Attitude toward the ad (A_{ad})	3.23	2.84	$p < .02$
	(.34)	(.33)	
Brand attitudes (A_b)	3.09	3.25	$p > .30$
	(.34)	(.33)	
Purchase intentions (*PI*)	2.54	2.07	$p < .05$
	(.41)	(.40)	

Note: Standard deviations are in parentheses.

cal product appears to enhance self-referencing and evaluations across both ethnic groups, rather than simply Asian consumers. These effects were not apparent when participants viewed ads containing the white model ($p > .14$).

DISCUSSION

The purpose of this research was to explore the role of self-referencing and ethnicity in relation to consumer attitudes and intentions using data from Asian and white participants. Specifically, the data from this study lend support for self-referencing as a psychological mechanism for explaining ethnicity effects. We found that the extent to which ethnic minority consumers relate ads to themselves is greater for Asian consumers when they view an Asian model, and this self-referencing mediates the influence of ethnicity on attitudes.

In line with distinctiveness theory (McGuire et al. 1978), ethnic minority consumers are more likely than ethnic majority consumers to self-reference ads containing ethnic minority models. Moreover, this difference, which involved a large effect size ($\omega^2 = .18$), was not evident for ads containing white models. Thus, ethnicity is a key dimension of self that elicits higher levels of self-referencing when ethnic minority consumers view ads containing models of a similar ethnicity. We believe that it is likely that the Asian participants who viewed the Asian model may have related the model's ethnicity to their own self-structures. The perceived ethnic similarity may help create concordance between the Asian participants' own experience and the content of the ad, which would reduce the uncertainty of the new message and facilitate understanding of the incoming information (Burnkrant and Unnava 1995; Krishnamurthy and Sujan 1999). Higher levels of self-referencing were also found to lead to enhanced attitudes, which support previous research into self-referencing (Debevec and Romeo 1992; Krishnamurthy and Sujan 1999).

It is important to note that our research studies Asians as the ethnic minority and whites as the ethnic majority. Following distinctiveness theory, however, we believe that our predictions of increased self-referencing by ethnic minorities of models of the same ethnicity would hold if the roles were reversed (e.g., white consumers as the ethnic minority living in China). In such an instance, we would expect ethnicity to be more salient in the self-concepts of white consumers than in the self-concepts of the ethnic majority of Asian consumers. Researching the impact of advertising where whites are in the minority could prove an intriguing avenue for future research.

Another key finding of our study relates to product stereotypicality. Findings supported the use of atypical product portrayals by minorities in advertising. In this research, portrayals of an Asian for an atypical product, shampoo, resulted in more favorable attitudes and purchase intentions than for the stereotypical product, green tea. It is important to note that this result was evident for both Asians and whites. Thus, this advertising tactic does not negatively influence the attitudes of the ethnic majority.

While accurate stereotypes can act as useful cues for consumers in low-involvement situations (Rossiter and Chan 1998), our analyses revealed that atypical portrayals result in greater self-referencing by both Asians and whites when exposed to an Asian model. This result, which included a small-medium effect size ($\omega^2 = .04$), builds on the research of Debevec and Iyer (1988) by showing that atypical portrayals can result in greater self-referencing across groups. Yet whereas Debevec and Iyer (1988) focused on gender and showed higher self-referencing for nontraditional sex role portrayals, our result shows that an atypical portrayal of another key dimension of self (i.e., ethnicity) results in higher self-referencing across consumers of different ethnicity. Taken together, these results offer an interesting avenue for future research. For example, how do these dimensions interact? Does ethnicity in-

teract with sex role portrayals to influence self-referencing responses to advertising? Do other key dimensions of self, such as occupation (Zinkhan and Hong 1991), have an impact on responses to advertising?

From a managerial perspective, given the positive attitudinal benefits of self-referencing, this result demonstrates how advertisers can induce self-referencing across consumers from the ethnic minority (i.e., Asians) and the ethnic majority (i.e., whites). Hence, whereas H1 shows that using Asian models results in higher self-referencing from Asian participants, this result (i.e., H4b) suggests that displaying Asian models in atypical ways can yield the positive benefits of higher self-referencing for both Asians and whites.

A number of limitations should be acknowledged. First, the student sample restricts the generalizability of the results. Although student samples have been used in ethnicity research (e.g., Forehand and Deshpandé 2001; Lee, Fernandez, and Martin 2002), they can lessen external validity. Likewise, future research should examine these self-referencing effects with other ethnic minority populations, and in other cultural settings. Second, our research studied self-referencing as a theoretical mechanism for gaining insight into ethnicity effects. While we tested for gender as a potential activator of self-referencing (which did not have an effect), the potential exists for other ad cues to activate self-referencing. For example, Debevec and Iyer (1988) found that progressive sex role portrayals in ads generated more self-referencing from undergraduate students than did traditional portrayals. They suggest that this result reflects a congruency with the more progressive attitudes of the sample. Thus, one could expect that in other advertising contexts, such as a television ad where actors depict a slice of life, features such as sex role portrayals may influence levels of self-referencing. Thus, researchers should be aware of which ad cues (e.g., ethnicity, gender) are likely to influence self-referencing. Third, since self-referencing is assumed to occur under conditions of high motivation (e.g., Bosmans et al. 2001), future research should measure cognitive elaboration or ad involvement. Equally, as noted by a reviewer, a measure should be included to allow for an assessment of ethnicity differences for perceived product stereotypicality.

Another area for future research relates to consumer self-concept. Given that self-referencing involves consumers relating messages to their sense of self, a useful avenue of research would be to study self-concept stability, which could provide insights into the robustness of a self-referencing perspective. For example, how do consumers with more changeable self-concepts react to ethnic models in advertising, especially where their own perception of ethnicity is changing in their self-concept? Research by Schouten (1991) discusses consumers trying on different selves, especially liminal consumers who lack a stable sense of self-concept. Self-concepts for these con-

sumers can be more susceptible to marketer influence when a product helps the consumer try on a new self. Such a perspective may prove useful in exploring atypical products, whereby the ad model may act as an affirmation to ethnic groups for a new self promoted by the ad. This perspective could also prove useful in a study of acculturation and a comparison of the levels of self-referencing of recent immigrants (i.e., consumers trying out a new self living in a new society) with those of the same ethnic group raised from birth in the same country (for discussions of acculturation, see Phinney 1990; Williams and Qualls 1989). Such research would also lend itself to a longitudinal analysis of variations in self-structures over time, perceptions of ethnicity and the self, and how this affects self-referencing in response to advertising.

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APPENDIX

Asian Model Stereotypical Product Advertisement

EverGreen® Tea

Sip, Savour, Enjoy!

Our EverGreen® Tea is grown in the most favourable and natural environment. It is grown in the EverGreen Tea Plantation, which is 1,200 meters above sea level, where the mountains embrace the clouds, all year.

On our plantation, we process the fresh green leaves immediately after harvesting. The leaves are processed without harmful fermentation and oxidation. Then we ship directly to our distribution centers to be presented to our ever growing world wide clientele.

Order your EverGreen® Tea today, and start enjoying its enormous health benefits, freshness, aroma and superb taste!

EverGreen® Tea

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