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The Effects of Race and Stereotypes in the Advertisement of Beverages

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Abstract

The current studies examined whether the perceptions of and intentions to consume and purchase a beverage would differ as a function of the stereotype consistency between the model’s race and the sport portrayed in an advertisement. Advertisements portrayed a Black and a White male model engaging in a stereotypical and non-stereotypical sport. For Experiment 1, the product advertised was a sports drink, whereas in Experiment 2, the product was a soda. Two hundred eighty eight participants in Experiment 1 and 202 participants in Experiment 2 were asked to view the advertisements and indicate their perceptions of and intentions to consume and purchase the product. Experiment 1 indicated that participants found the drink to be more realistic, would pay more for the sport drink, and thought the sport drink would enhance their performance more when the Black model portrayed the stereotypical compared to the non-stereotypical sport. In Experiment 2 Black participants indicated that they would be more likely to purchase and consume the soda when advertised by the White model portraying the stereotypical sport compared to the non-stereotypical sport. While the race of the model and the stereotype consistency between the model and the sport influenced perception and evaluation of the products, results of both studies revealed that Black participants were more influenced by the race of the model than White participants. These findings have implications for enhancing our understanding of the role of race and stereotypes in advertisements and how they affect perception of high-calorie products, especially for Blacks.

Keywords: race, stereotypes, advertising, sports, high-calorie beverages
An advertisement is defined as a “paid form of non-personal presentation of ideas, goods, or services by an identified sponsor with predominant use made of the media of mass communication” (Engle, Washaw & T.C, 1979). In general, advertisements are regarded as a form of persuasion. It is proposed that by changing attitudes towards a specific product (i.e., make those attitudes more positive), advertisements can affect behavior (i.e., purchasing) (Petty, Cacioppo & Schumann, 1983). The Elaboration Likelihood Model (ELM) suggests that people can be persuaded by advertisements by actively examining the quality of the persuasive message using the central route, which consists of thoughtful consideration of the arguments (ideas, content) of the message. They may also use the peripheral route, which occurs when the listener decides whether to agree with the message based on other cues besides the strength of the arguments or ideas in the message. For example, a listener may decide to agree with a message because the source appears to be an expert, or is attractive (Petty, Cacioppo & Goldman, 1981; Petty & Cacioppo, 1986). The use of the peripheral route leads the individual to associate an emotion with the product (Petty, Cacioppo & Schumann, 1983; Daiton & Zelley, 2014). In an effort to identify factors that are contributing to the increase in rates of obesity, research should examine the role of food and beverage advertisements in the promotion of unhealthy diets.

**Food and Beverage advertisements**

Most studies examining the role of food and beverage advertisements and its relation to preference and consumption of unhealthy products have focused on children because they are a vulnerable population who tend to be targeted by industry (Viner & Cole, 2005; Calvert, 2008). On average children view 15 television food advertisements a day, and in general, more than 90% of food advertisements viewed by children and adolescents between 2 to 17 years of age are products high in fat, sugar and/or sodium (Federal Trade Commission, 2007; Powell, Szczpka,
Many studies have shown that mere exposure to and familiarity with advertised products can lead to greater preference of and purchasing of products (Hastings et al., 2003; IOM, 2006; Story & French, 2004). Studies have found that children are more likely to request and consume food and beverages they have viewed in advertisements (Aktas & Arnas, 2006; Utter, Scragg & Schaaf, 2006). Studies with adults have found that similar to children, exposure to food and beverage commercials increases consumption (Anschutz et al. 2011; Scully, Dixon & Wakefield, 2009). One study in particular found that viewing food and beverage advertisements was positively associated with fast food consumption (Scully, Dixon & Wakefield, 2009). More research is needed to understand how advertisements influence adult consumption of food and beverages.

Utilizing the peripheral route which relies on the consumer’s emotional involvement as stated by ELM, marketing companies capitalize on establishing a distinguishing image for their products by creating a strong, positive brand (Daiton & Zelley, 2014). Studies done with adults found that overall ratings of products in terms of taste, preference and quality, were strongly influenced by brand identification such that even when similar products were present with or without a known brand, the product with the known brand received more positive ratings (Allison & Uhl, 1964; Mackens, 1965). Furthermore, food advertisements promote the sensory and rewarding aspect of food such as the taste, enjoyment, and immediate gratification (Burke & Edell, 1989; Harris & Pomeranz, 2009). This results in the association of the product with the unconscious emotion it produces (Connor, 2006). An example of this is McDonald’s “Happy Meal.” The smiling face on the Happy Meal not only makes it easily recognizable by children but also more appealing by eliciting feelings of happiness. Similar results were shown with adults—ads that elicited more of an upbeat feeling received more positive ratings (Burke &
Edell, 1989). Because both adults and children who spend more time watching television are better at recalling advertisements, positive associations generated by these advertisements are problematic in that they can lead to the purchase of unhealthy products (Batada et al., 2008; Hitchings & Moynihan, 1998; Thomson et al., 2008).

**Race in Advertisements**

There are several variables that may affect the persuasiveness of a food or beverage advertisement. One important variable is characteristics associated with the actor such as race. There is evidence that advertisers intentionally adjust the race of actors in advertisements to fit a particular product category and/or to target a particular consumer audience (Harrison, 2006). One study that examined 1037 advertisements found that out of 226 food and beverage advertisements, Blacks were the primary models in advertisements for soft drinks 67% of the time compared to Whites who were the primary models 18.7% of the times (Gilmore & Jordan, 2012). When people of color, Blacks in particular, are present in advertisements they are most likely to be presented in advertisements for fast food restaurants, ready-to-eat foods, and sugary beverages (Harrison, 2006). Furthermore, Blacks are more likely to be shown eating at fast food restaurants. Even when Blacks are shown in the home, they tend to be preparing convenient or prepackaged foods such as hot dogs. On the other hand, White individuals dominate advertisements for non-fast food products and products that advertise a healthy lifestyle (Henderson & Baldasty, 2003).

The deliberate use of different racial groups by advertisers suggests that an actor’s race might affect perceptions and purchasing of the endorsed product. One factor that may partially determine this relationship is the degree to which the model is a member of the perceiver’s ingroup or outgroup. Social Identity Theory explains how we use social categories such as race
to distinguish between those who are similar to us (ingroup members) from those who are
dissimilar to us (outgroup members). Previous research has shown that people tend to view
advertisements more favorably when they contain members of their identified racial group versus
those that only feature members of another racial group (Dimofte, Forehand, and Deshpandé
2003).

**Athletes as Actors in the Endorsement of Unhealthy Products**

Another effective peripheral strategy used by food and beverage advertisements is the use
of celebrity endorsements. Overall, celebrities make advertisements more persuasive by
increasing recall of brand and further promoting a positive elite image of the product
(Charbonneau & Garland 2005; Ohanian, 1991). Due to its growing popularity, more recent
research is being done to examine the negative implications of using sport celebrities in the
advertisement of non-sport related products (Erdogan et al. 2001).

According to the Match-Up Hypothesis, an endorsement by an athlete should be more
effective when it is a product associated with sports versus a non-sport related product because
athletes are believed to have more expertise with sport related products (Koering and Boyd,
2009; Madkour, 2002). Further research has shown that the match-up hypothesis should even be
applicable in endorsements by less known or unknown athletes. However, over the years, not
only has there been an increase in the use of athletes to advertise non-sport related products but
they are just as effective at endorsing these products as sports-related products. One study found
that, out of 512 brands endorsed by athletes, 23.8% of brands pertained to food and beverage
advertisements compared to 28.3% of sport-related products (Brag et.al, 2013). Another study
found that endorsements of energy dense and nutrient poor foods by a sport celebrity, rather than
a non-sport celebrity, influenced consumer preference and led them to believe that the product
was healthier, nutritious, and of better quality (Dixon et al., 2011). Thus, a major problem of using athletes to endorse unhealthy products is a deceitful message concerning the association of those unhealthful products and their negative outcomes.

**Stereotypes in advertisements**

Advertisements have also been shown to yield different levels of persuasiveness based on the degree to which their product is stereotypically matched to target racial groups. Researchers refer to this concept as the embedding cultural relevance, which Grier describes as the use of “…ethnic symbols, linguistic styles, and music to link cultural values, beliefs, and norms with the consumption of specific food products” (Grier, 2009, p. 29; Williams et al., 2011). In its simplest form, the embedding of cultural relevance strategy encompasses the use of salient stereotypes. For example, advertisements for active lifestyles will most likely show Black actors playing stereotypical sports such as basketball, while White actors are shown skateboarding or biking (Gilmore & Jordan, 2012). One study found that out of 7 advertisements, non-white actors advertised 85.8% of advertisements for athletic shoes/wear while white actors advertised only 14.2% of those advertisements, further enhancing the stereotype that associates great athletic ability with Blacks (Henderson & Baldasty, 2003; Stone, 1997). In general people prefer information that is congruent with their beliefs. Therefore, due to the frequency and commonality of these types of associations, consumers may prefer and respond more favorably to advertisements that are consistent versus those that are inconsistent with their pre-existing associations and stereotypes (Greenwald, McGhee & Schwartz, 1998).

**The Present Studies**

Much of the current research examining the effects of food and beverage advertisements have primarily focused on children and adolescents with few studies examining the effects of
race and stereotypes on adult consumers in the content of food and beverage advertisements. Thus, the current study aims to examine whether adults’ perceptions of and intentions to consume and purchase a beverage will differ as a function of the stereotype consistency between the model and the sport they are portraying in an advertisement. We first identified the sports stereotypically associated with Black and White males, and used this information to create advertisements that will be used in our experiments.

In this study we tested participants’ responses to two different high-calorie beverages that differ in terms of their perceived healthfulness by most consumers. The first was a sport drink (Experiment 1). Sport drinks are flavored beverages that contain carbohydrates, minerals, electrolytes (e.g., sodium, potassium, calcium, magnesium), and sometimes vitamins or other nutrients. The intended purpose of these drinks is to rehydrate individuals during or after vigorous exercise by replacing electrolytes lost via sweat and providing carbohydrates which serve as the body’s main source of energy. However, due to the misinformed nutritional and health benefits, sport drinks and energy drinks continue to be seen as a healthier alternative to other sugary-beverages such as soda (Kaphingst & French, 2006; Kumar, Park & Onufrak, 2014). Due to its high calorie (10-70 per serving) and sugar (14-60 grams) content, the American College of Sports Medicine discourages the consumption of sport drinks when an individual is sedentary or only performing low to moderate activities. Despite this, between 2000 - 2004, while there was a decrease in the purchase of soft drinks by 24% in schools, sport drink purchases increased by 70% (Wescott, 2005). With respect to an advertisement in which an athlete endorses a sport drink, consumers may fail to acknowledge it may not be a healthy choice for individuals who are not exercising and more harming than beneficial.
The second beverage (Experiment 2) was a soft drink. Numerous studies have examined the link between soda and the increased rate of obesity (Institute of Medicine, 2012). As mentioned previously, a large percentage of advertisements targeting adolescents are of sugary beverages such as soft drinks. Frequent consumption of soft drinks have been linked to weight gain, an increase in rate of diabetes, dental caries and other health problems (James & Kerr, 2005; Malik, Schulze, and Hu, 2006).

We predicted that individuals would have more positive perceptions of the beverages and the models and more intent to consume or purchase the beverage when (1) advertised by a member of their own race, and (2) when the models’ race matched the stereotypicality of the sport. Furthermore, we explored the match-up theory with non-celebrity athletes. If the match-up theory is accurate, we predict that the participants’ overall perception of the advertisements would differ when the athletes are advertising the sport drink versus when they are advertising the soda. However, if the match-up theory is not supported we should see no difference between the advertisements of the sport drink versus the soda. Finally, we predict that participants’ attitudes towards the advertisement, when the athlete is endorsing the soda, will be determined by the racial similarity between the participant and the model rather than stereotype consistencies. Because the soft drink is not related to sports, participants will not need to focus on processing sport-related information in order to make a decision about the product.

**Experiment 1**

**Method**

*Participants*

Three hundred three Black and White adults ($M_{age} = 40.60$ years, $SD = 13.65$) were recruited through Mturk and Qualtrics, two web based programs where participants are
compensated for taking studies. All procedures were approved by the school’s Protection of Human Subjects Committee, and informed consent was obtained from each participant.

**Materials**

**Picture Stimuli**

First, to determine which sports people typically associate with White and Black players, a pilot test was conducted with 98 adults (\(M_{age} = 36.00\) years, \(SD = 13.30\); 45 males, 50 females; 79 White, 6 Black, 5 Asian and 8 “Other”) recruited through Mturk. Participants were asked to identify the sports that they considered to be commonly associated with White and Black males in a free-response format. Eighty-four people identified basketball as a sport commonly associated with Black males, while only four identified basketball as commonly associated with White males. Sixty-one identified baseball as a sport commonly associated with White males while only six people identified baseball as the sport commonly associated with Black males. Based on these results, pictures were created by photographing a White and a Black model holding a sport drink while dressed as both a baseball and basketball player. The models were two male (1 Black, 1 White) volunteers from the College of William and Mary. The models wore two customized jerseys during the photo shoot. In order to prevent product bias, a non-existent name brand was created called “Hydrate” and the label was placed on an already existing sport drink. Each photo was taken in the same location, and models were given the same gear, and equipment. The final pictures used for the experiment were selected based on similarity in the models’ poses, facial expressions, and the environment (see Appendix A).

To ensure that the two models had similar levels of attractiveness, 19 William and Mary students (age ranging from 18 - 21 years; 2 males, 17 females; 11 White, 3 Black and 5 Asian) completed a short questionnaire via email. Questionnaires contained 2 pictures; one of the Black
model and one of the White model, both in basketball gear. Participants were asked to rate each model’s attractiveness on a scale of 1 to 7 (1 = not at all and 7 = extremely). Results of a paired-samples t-test indicated that there was no difference between the Black model ($M = 4.58, SD = 1.21$) and White model ($M = 5.10, SD = 1.29$) based on physical appearance; $t (18) = 1.19, p = .249$. Therefore, these two models were used to create the four conditions that would be used for the experiment: 1) a Black male dressed as a baseball player, 2) a Black male dressed as a basketball player, 3) a White male dressed as a baseball player and 4) a White male dressed as a basketball player.

**Questionnaires**

**Picture ratings.** Participants were asked to view the advertisement and answer several questions about the beverage, such as how much they would pay for the drink (scale ranged from $0.00$ to $5.00$), whether they thought the drink would enhance their performance (scale ranged from $0 =$ very unlikely to $100 =$ very likely), and how healthy they thought the drink was (scale ranged from $0 =$ extremely unhealthy to $100=$ extremely healthy). Participants were asked to indicate their agreement with the following statements using a scale from $0$ to $100$ ($0 =$ strongly disagree, $100 = $ strongly agree). Examples of statements were: “the model in the picture above is attractive,” “the model in the picture above is similar to me” or “this advertisement would encourage me to consume this sports drink, and I think this advertisement would encourage others to purchase this drink.” Participants were then asked about the sports they play and their sports drink consumption. Finally, participants provided their demographic information (e.g., their age, height, weight and income). See Appendix C for a full version of this questionnaire.

**Attitudes toward Blacks Scale.** To assess explicit prejudice against the opposite race, White participants were asked to complete an Attitudes Toward Blacks (ATB) scale. The ATB
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(Brigham, 1993; α = .88) contains 20 statements rated on a 7-point scale (1 = strongly disagree, 7 = strongly agree). Items from the ATB include statements such as “I would rather not have Blacks live in the same apartment building I live in” or “Black and White people are inherently equal” (reverse-coded). Individual items were averaged to form a composite score (with a possible range of 1 to 7), with higher scores indicating more prejudice (α = .87). (See Appendix D)

*Attitudes toward Whites Scale.* To assess explicit prejudice against the opposite race scale, Black participants were asked to complete an Attitudes Toward Whites (ATW) scale. Six items were extracted from the ATB scale and modified to create the ATW scale (Hehman, Gaertner & Dovidio, 2010). Participants rated the six statements on a 7-point scale (1 = strongly disagree, 7 = strongly agree). Items from the ATW include statements such as “I would rather not have Whites live in the same apartment building I live in” or “Interracial marriage should be discouraged to avoid the "who-am-I?" confusion which the children feel.” Individual items were averaged to form a composite score (with a possible range of 1 to 7), with higher scores indicating more prejudice. The ATW was shown to be less reliable than the ATB (α = .65). (see Appendix E)

*Neophobia Scale.* To measure the degree to which participants were hesitant to try new foods and beverages they were asked to complete a neophobia scale. The neophobia scale consisted of 10-item scale that measured food neophobia (FN) and an 8-item scale that measured general neophobia (GN) (Pliner & Hobden, 1992; α = .88). Items for both scales were rated on a 7-point scale (1= extremely disagree, 7 =extremely agree) (FN) or “I am very uncomfortable in new situations” (GN). (see Appendix F)

**Procedure**
Participants signed the informed consent form electronically before beginning the questionnaire. They were then randomly assigned to view one of four advertisements— the Black male baseball player, the Black male basketball player, the White male baseball player, or the White male basketball player. Participants then completed the scales and their demographic information. On average participants took 15 minutes to complete the survey.

**Results**

*Participant Characteristics.* Of the 303 participants recruited, 15 were excluded from analyses because they had technical difficulty (\(n = 1\)), knew the purpose of the study (\(n = 5\)) or did not comply (\(n = 9\)). Of the remaining 288 adults (\(M_{\text{age}} = 41.00\) years, \(SD = 13.60\)) there were 143 males. The racial breakdown of this sample was 151 Whites and 137 Blacks. As shown in Table 1 there were no differences between the two groups in their age, BMI, income, years in college, FN, ATB, and ATW. However, there were differences in how appealing the two groups found sport drinks. In general, White participants found sports drink more appealing (\(M = 60.09, SD = 2.18\)) than Black participants (\(M = 49.28, SD = 2.95\)). Therefore, we used this variable as a covariate in the analyses below.

A series of 2 (Model Race: Black, White) x 2 (Model Sport: Basketball, Baseball) x 2 (Participant Race: Black, White) between subjects Analyses of Covariance (ANCOVA) were conducted to determine whether participants differed in their perception of the advertisement. Dependent variables included how realistic others would find the advertisement, the similarity of the model to themselves, how much they would pay for the beverage if they were working out, how much they would consume the drink if they were not exercising, how much the advertisement would encourage them to consume the drink, the perceived healthfulness of the drink and how much the drink would enhance performance.
In order to test whether participants attended to the ingroup-outgroup racial status of the model, a manipulation check was performed. Results revealed that there was a significant interaction between Model Race and Participant Race such that participants rated the model as similar to themselves when the model’s race matched their own, $F(1, 279) = 10.79, p < .01$. Simple main effects analyses revealed that when the model was Black, Black participants ($M = 44.01, SE = 3.64$) viewed the model as more similar to them compared to White participants ($M = 33.28, SE = 3.46$), $F(1, 134) = 4.57, p < .05$. When the model was White, White participants ($M = 42.09, SE = 2.81$) viewed the model as more similar to them compared to Black participants ($M = 30.49, SE = 2.79$), $F(1, 148) = 8.46, p < .01$.

With respect to participants’ perception of the advertisement, there was a significant main effect of Model Race such that participants thought that others would find the advertisement to be more realistic when the model was Black ($M=75.15, SE=1.72$) than when the model was White ($M = 70.21, SE = 1.68$), $F(1, 279) = 4.23, p < .05$.

**Willingness to pay for and consume the drink:** There was a significant interaction between Model Race and Model Sport, $F(1,279) = 6.00, p < .05$. As shown in Figure 1, simple main effects analyses revealed that when the model was Black, participants were willing to pay more when the sport portrayed was basketball ($M = 1.95, SE = .12$) compared to when the sport was baseball ($M = 1.45, SE = .11$), $F (1, 138) = 6.91, p < .05$. There was no difference when the White model portrayed baseball ($M = 1.82, SE = .12$) compared to basketball ($M = 1.68, SE = .11$).

When asked how much of the drink they would consume if they were not exercising, there was a significant main effect of Race. White participants indicated that they would consume a greater percentage of the drink ($M = 45.17 \%, SE = 2.47$) than Black participants ($M$
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= 36.19 %, \( SE = 2.60 \), \( F(1,277) = 6.17, p < .05 \). A similar pattern of results was found when participants were asked how much they would consume if they were exercising. Again, White participants indicated that they would consume a greater percentage of the drink (\( M = 65.66 \% \), \( SE = 2.28 \)) than Black participants (\( M = 52.07 \% \), \( SE = 2.41 \), \( F(1,277) = 16.59, p < .01 \).

Regarding whether or not the advertisement would encourage participants to consume the sport drink, there was a significant interaction of Model Race x Model Sport, \( F(1,279) = 6.17, p < .05 \). As shown in Figure 2, simple main effects analyses revealed that when the model was White and the sport portrayed was baseball (\( M = 50.88, SE = 2.78 \)), participants were more encouraged by the advertisement than when the sport portrayed was basketball (\( M = 41.50, SE = 2.65 \), \( F(1, 144) = 5.96, p < .05 \)). There was no difference when the Black model portrayed basketball (\( M = 47.57, SE = 3.14 \)) compared to baseball (\( M = 42.72 SE = 3.30 \)).

These analyses also revealed a significant interaction of Model Race x Participant Race, \( F(1,279) = 7.98, p < .05 \). As shown in Figure 3, simple main effects analyses revealed that when the model was Black, Black participants were more encouraged by the advertisements (\( M = 52.23, SE = 3.27 \)) than White participants (\( M = 39.30, SE = 3.03 \), \( F(1, 141) = 8.35, p < .01 \). There was no difference in encouragement in the White model conditions between Black (\( M=44.81, SE= 2.83 \)) and White participants (\( M = 47.08, SE = 2.77 \)).

**Perceived Healthfulness of Drink and Effect on Performance**

There was a significant main effect of Race such that White participants (\( M = 215.52, SE = 9.54 \)) thought that there were more calories in a full bottle of the drink than Black participants (\( M = 120.84, SE = 10.14 \), \( F(1,275) = 45.65, p < .01 \)).

With respect to participants’ perception of the healthfulness of the beverage, there was a significant interaction between Model Race and Participant Race. \( F(1, 278) = 4.45, p < .05 \). As
shown in Figure 4, simple main effects analyses revealed that when the model was Black, Black participants ($M = 63.80, SE = 2.71$) thought the drink was marginally more healthful than White participants ($M = 56.82, SE = 2.60$), $F(1, 133) = 3.45, p = .07$. However, when the model was White, there was no difference in rating of healthfulness between Black participants ($M = 62.29, SE = 2.27$) and White Participants ($M = 64.57, SE = 2.27$).

When asked to rate the extent to which they thought the beverage was healthy to consume when not working out, there was a significant main effect of Race such that Black participants ($M = 54.91, SE = 2.03$) rated the beverage as more healthy to consume when not working out compared to White participants ($M = 43.92, SE = 1.93$), $F(1,278) = 15.18, p < .01$. This main effect was qualified by a marginal interaction between Model Race and Participant Race, $F(1, 278) = 3.66, p = .06$. As shown in Figure 5, simple main effects analyses revealed that when the model was Black, Black participants ($M = 55.76, SE = 2.82$) thought the drink was healthier to consume than White participants ($M = 39.81, SE = 2.61$), $F(1, 138) = 17.16, p < .01$. There was no difference in ratings of healthfulness in Black participants ($M = 54.19, SE = 2.91$) compared to White Participants ($M = 48.07, SE = 2.83$) with the White model.

When ask how much would this drink enhance performance, there was a significant main effect of Participant Race. Black participants ($M = 50.59, SE = 2.02$) thought that the drink would enhance their performance more than White participants ($M = 41.39, SE = 1.93$), $F(1, 279) = 10.68, p < .01$. This was qualified by an interaction between Model Race and Model Sport, $F(1, 279) = 4.40, p < .05$. As seen in Figure 6, simple main effects analyses revealed that participants tended to believe that the drink would enhance their performance more when the model was Black and the sport portrayed was basketball ($M = 47.60, SE = 2.83$) compared to baseball ($M = 41.26, SE = 2.98$), $F(1, 138) = 2.37, p = .13$. However, there was no difference
when the White model portrayed baseball ($M = 49.48, SE = 2.80$) compared to basketball ($M = 44.33, SE = 2.67$).

**Discussion**

The current experiment provides evidence that the race of actors and stereotypes portrayed in advertisements affect the perception of an advertisement and product. Our findings suggest that Black participants focus more on the race of the model than White participants. For example, Black participants saw the sport drink as healthier regardless of whether or not it was consumed while working out when advertised by the Black Model compared to White participants. These results suggest that the Black participants may have been more affected by the race of the model than White participants. These results are also consistent with research suggesting that Blacks use race to establish perception of an advertisement and view the advertisement more favorably when it contains an in-group member versus and out-group member. (Hoplamazian & Appiah, 2013; Qualls & Moore, 1990).

Overall, our results are consistent with research suggesting that people favor information that is consistent with their existing stereotypes more than information that is inconsistent (Greenwald, McGhee & Schwartz, 1998). That is, participants responded more favorably to the advertisements in which the sport portrayed was stereotypically associated with the model’s race compared to when the sport was not. However all but one variable was a function of the stereotype consistency between the Black model and the stereotypical sport portrayed. Both groups found the drink more realistic, would pay more for the sport drink and thought the sport drink would enhance their performance more when the Black model portrayed the Black stereotypical sport, basketball, versus the non-stereotypical sport, baseball. These results support previous research suggesting that because Black males are stereotypically associated with
basketball and are generally associated with having great athletic abilities, they might be seen as having more of an expertise on a product related to sports such as a sport drinks and therefore those advertisements might be more influential (Edwards, 2000; Henderson & Baldasty, 2003; Koering and Boyd 2009, 30; Stone, 1997).

Finally, when it came to consumption, we found that regardless of the race of the model or the sport portrayed, White participants indicated that they would consume more of the beverage regardless of whether or not they were working out. This may suggest that the advertisements were more effective for the White participants with respect to consumption. However, both groups did also indicate that the advertisement would encourage them to consume the sport drink more when the White model portrayed baseball versus basketball. This finding may have been another example of consumer behavior being affected by stereotype consistency.

It is important to note that overall participants had a positive view of the sport drinks and it seems that perceptions of the healthfulness of the drink may not be related to intent to consume the product. For example, even though the White participants acknowledged that the sport drink was higher in calories than the Black participants, they still reported that they would consume more of it than Black participants. This supports previous research suggesting that sport drinks may be seen as a healthy alternative to other sugar-beverages (Dixon et al., 2011; Kaphingst & French, 2006; Kumar, Park & Onufrak, 2014). These findings are consistent with research that indicates that sport drinks are indeed being consumed improperly, given that participants indicated that they would consume the drink and still view it as healthy when not exercising.

The current study was limited in that it looked only at the effects of race and stereotypes on one beverage that was sport-related. Therefore, in Experiment 2, we used a non-sport related
product, a soda, to examine whether or not we would find similar interactions between the race of the model and the stereotypical sport portrayed.

**Experiment 2**

**Method**

**Participants**

Two hundred two Black and White adults (\(M_{\text{age}} = 49.00 \text{ years}, SD = 13.48\)) were recruited through Qualtrics Panels and were compensated for their participation. All procedures were approved by the school’s Protection of Human Subjects Committee, and informed consent was obtained from each participant.

**Materials**

**Picture Stimuli.** Advertisements were created using the same White and Black models dressed as baseball and basketball players as used in Experiment 1; however, in this experiment they were holding a soda instead of a sports drink (see Appendix B). We used a generic soda brand to prevent product bias. To make the advertisement look more realistic, the pictures were taken in a dugout and locker room rather than on the baseball field or basketball court, respectively. Once again, final pictures used for the experiment were selected based on similarity of the models’ poses, facial expressions, and the environment. In order to ensure that the models did not differ in attractiveness and that the pictures were realistic, a pilot test was conducted in which 14 William and Mary students (Age ranging from 19-22; 4 males; 10 females; 8 White, 3 Black, 2 Asian and 1 other) completed a short written questionnaire. Each participant was given a survey that contained pictures of both models dressed in basketball gear. Participants were asked to rate each model on a scale of 1 to 10 (1=not at all and 10 = extremely) based on the model’s attractiveness and how realistic the advertisement appeared base on the race of the model.
Results of a paired-samples t test indicated that there was no difference between the Black model ($M = 7.57$, $SD = 1.95$) and White model ($M = 6.92$, $SD = 1.59$) based on physical appearance; $t(18) = 1.39$, $p = .189$. Also, there were no differences between the photographs of the Black ($M = 5.00$, $SD = 3.06$) and White model ($M = 4.42$, $SD = 2.65$) in how realistic the advertisements appeared; $t(13) = 1.47$, $p = .165$. Therefore, the two models were used to create the four conditions that would be used for the experiment — (1) Black male baseball player, (2) Black male basketball player, (3) White male baseball player and (4) White male basketball player.

**Questionnaire.** The online questionnaire used for Experiment 2 was identical to that of Experiment 1, with the exception that questions that were specific to sport drinks such as “how healthy or unhealthy do you think it is to consume this drink before, during, or after working out or playing sports” or “how healthy or unhealthy do you think it is to consume this drink when not working out or playing sports” were excluded. For all remaining questions the target beverage was changed from “sport drink” to “soda.” Participants were asked the same demographic questions as in Experiment 1.

**Scales.** Black and White participants completed the *Attitudes Toward Blacks Scale* and the *Attitudes Toward Whites Scale* as described in Experiment 1.

**Procedure**

Participants signed the informed consent form electronically before beginning the questionnaire. They were randomly assigned to view one of four advertisements— the Black male baseball player, Black male basketball player, White male baseball player or White male basketball player. Participants then completed the scales and their demographic information. On average participants took 16 minutes to complete the survey.

**Results**
Participant Characteristics. Participants were 202 adults ($M_{age} = 49.00$ years, $SD = 13.48$); there were 76 males. The racial breakdown of this sample was 99 Whites and 103 Blacks. As shown in Table 2 there were no differences between the two groups in their age, BMI, years in college, ATB, and ATW. Although there were differences in income between the groups. However, when we covaried out income, the pattern of results remained the same. Therefore, the analyses below are conducted without this covariate.

A series of $2$ (Model Race: Black, White) x $2$ (Model Sport: Basketball, Baseball) x $2$ (Participant Race: Black, White) between subjects ANOVA were conducted to determine whether participants differed in their perception of the advertisement. Dependent variables included how likely they would consume the soda if available to them at the moment, how much they think they would like the soda, how many calories they think was in one serving of the soda, perceived healthfulness of the soda, how likely they would be to purchase the soda, how much they would pay, how athletic they believed the model be, the similarity of the model to themselves, how much the advertisement would encourage them to consume the drink, how realistic they found the advertisement, how realistic others would find the advertisement, and perceived intend of advertisement.

A manipulation check was performed to determine the degree to which the participants thought they were similar to the models and how realistic they thought the advertisements were. There was a marginal main effect of Participant Race such that Black participants ($M = 30.99$, $SE = 2.65$) viewed themselves as more similar to the models than the White participants did ($M = 23.58$, $SE = 2.68$), $F(1,192) = 3.86$, $p < .05$. Further analyses of non-dependent variables also revealed a significant main effect of Race such that Black participants ($M = 4.34$, $SE = .13$) spent more hours watching television in a day than did White Participants ($M = 3.60$, $SE = .13$),
When asked about how much White males were associated with Baseball, there was also a significant main effect of Race, such that Black participants ($M = 4.38, SE = .08$), believed that Whites were associated with Baseball more than the White Participants ($M = 3.78, SE = .08$), $F(1,194) = 25.34, p < .01$.

With respect to participants’ perception of the advertisement, there was a main effect of Participant Race such that Black participants ($M = 61.90, SE = 2.84$) found the advertisements more realistic than White participants ($M = 49.75, SE = 2.88$), $F(1,193) = 9.02, p < .01$. Additionally, Black participants ($M = 65.49, SE = 2.76$) were more likely than White participants ($M = 54.12, SE = 2.80$) to believe that others would find the advertisements to be realistic, $F(1,192) = 8.11, p < .05$.

When asked whether or not they believed the advertisement was intended for people like them, we found a significant main effect of Participant Race, with Black participants ($M = 42.09, SE = 3.02$) more likely than White participants ($M = 30.84, SE = 3.07$) to believe that that the advertisements were intended for people like them, $F(1,193) = 6.82, p < .05$.

Finally, there was a significant main effect of Model Race such that participants rated the Black model ($M = 73.77, SE = 2.36$) as more athletic compared to the White model ($M = 63.77, SE = 2.37$), $F(1,193) = 8.93, p < .01$. Additionally, there was a marginal main effect of Model sport such that participants perceived the models as more athletic when they portrayed basketball ($M = 71.83, SE = 2.39$) compared to baseball ($M = 65.72, SE = 2.34$), $F(1,193) = 3.34, p = .07$.

**Willingness to pay for and consume the drink.** When asked to indicate how much they would pay for the soda, there was a significant main effect of Participant Race such that Black participants ($M = 1.06, SE = .08$) were willing to pay more for the soda compared to White participants ($M = .77, SE = .08$), $F(1,191) = 6.50, p < .05$. When asked to what degree the
advertisement would encourage them to consume the soda there was also a significant main effect of Participant Race such that Black participants \(M = 36.11, SE = 2.96\) were more likely to consume the soda than White participants \(M = 26.06, SE = 3.01\), \(F(1,193) = 5.67, p < .05\).

When participants were asked whether they would want to consume the soda if it was available to them at that moment, there was a significant main effect of Participant Race such that Black participants \(M = 44.94, SE = 3.00\) were more likely to want to consume the soda compared to White participants \(M = 32.13, SE = 3.09\), \(F(1,192) = 8.89, p = .00\). This main effect was qualified by a marginal three-way interaction between Model Sport, Model Race and Participant Race, \(F(1,192) = 2.99, p = .09\). Although there were no differences in likelihood of consumption when the model was Black, \(F(1, 96) = .05, p = .82\), for the White model, simple main effects analyses revealed that there was a significant two-way interaction between Model Sport and Participant Race, \(F(1,96) = 5.03, p < .05\). When this interaction was further broken down by sport these analyses revealed that when the sport portrayed was baseball \(M = 52.12, SE = 6.03\), Black Participants reported that they would be more likely to consume the soda, compared to when the sport portrayed was basketball \(M = 34.50, SE = 5.70\), \(F(1, 51) = 4.51, p < .05\). See Figure 7. There was no difference in wanting to consume the soda by White participants when the model was White and the sport portrayed was baseball \(M = 27.24, SE = 5.99\) compared to when the sport portrayed was basketball \(M = 36.68, SE = 6.38\).

When asked how much they think they would like the soda, there was a significant three-way interaction between Model Sport, Model Race and Participant Race, \(F(1,190) = 3.87, p < .05\). For the White model simple main effects analyses revealed there was a significant two-way interaction between Model Sport and Participant Race, \(F(1, 94) = 4.35, p < .05\). As shown in Figure 8, when the sport portrayed was baseball \(M = 58.96, SE = 6.20\) Black Participants liked
the soda more, compared to when the sport portrayed was basketball ($M = 42.07, SE = 5.97$), $F(1, 50) = 3.85, p = .06$. There was no difference in liking of the soda by White participants when sport portrayed was baseball ($M = 27.24, SE = 5.99$) compared to when the sport portrayed was basketball ($M = 36.68, SE = 6.38$).

When asked how likely they would be to purchase the soda there was a significant three-way interaction between Model Sport, Model Race and Participant Race, $F(1,184) = 6.19, p < .05$. For the White model simple main effects analyses revealed there was significant two way interaction between Model Sport and Participant Race, $F(1, 92) = 7.18, p < .05$. As shown in Figure 9, when the sport portrayed was baseball ($M = 47.83, SE = 5.95$) Black participants were more likely to want to purchase the soda, compared to when the sport portrayed was basketball ($M = 27.11, SE = 5.50$), $F(1, 48) = 6.54, p < .05$. There was no difference in likelihood of purchase by White participants when the model was White and the sport portrayed was baseball ($M = 24.36, SE = 5.80$) compared to when the sport portrayed was basketball ($M = 35.29, SE = 5.80$).

**Perceived Healthfulness of Drink.** Although both races rated the soda as unhealthy, there was a marginal interaction between Model Race and Participant Race, $F(1, 191) = 2.97, p = .09$. As shown in Figure 10, simple main effects analyses revealed that when the model was White, Black participants ($M = 34.59, SE = 3.15$) rated the drink as marginally more healthful compared to White participants ($M = 26.18, SE = 3.38$), $F(1, 97) = 3.32, p = .07$. However, when the model was Black, there was no difference in rating of healthfulness between Black participants ($M = 30.39, SE= 3.34$) and White participants ($M = 33.47, SE = 3.27$).

When asked to indicate how many calories are in one serving of the soda, there was a marginal interaction between Model Race and Participant Race such that participants indicated
the soda as having a greater number of calories when the model was the same race as themselves, 
\( F (1,174) = 3.72, p = .06 \). As shown in Figure 11, simple main effects analyses revealed that
when the model was Black, Black participants rated the soda as having more calories per serving 
\( (M = 206.59, SE = 34.72) \) compared to when the model was White \( (M =114.39, SE = 34.72) \), \( F (1, 92) = 3.53, p = .06 \). There was no difference when the participant was White and the model
was White \( (M = 139.48, SE = 16.05) \) compared to when the model was Black \( (M = 152.27, SE = 
16.41) \).

**Discussion**

Unlike Experiment 1, our results suggest that the advertisements were overall more
effective for Black than for White participants. In general, Black participants found the
advertisements were more realistic, were more likely to believe that the advertisements were
intended for people like them, and viewed themselves as more similar to all of the models than
White participants. Surprisingly, Blacks were more influenced by the White model, and more
specifically, when there was stereotype consistency between the White model and the sport
portrayed. When the White model portrayed baseball, Black participants wanted to consume the
soda more, liked the soda more and reported that they would be more likely to purchase the soda.
Additionally, although overall both groups rated the soda as unhealthy, Black participants
considered the drink healthier when advertised by the White model.

We believe that the results of Experiment 2 may be explained by the expectancy-
violation theory which suggests that we make more extreme evaluations of an individual when
they violate our expectations (Bettencourt et.al, 1997). Analyses of our data revealed that in
general Black participants spent more hours during the day watching television than did White
Participants. Based on previous research mentioned in the introduction of this paper, the majority
of advertisements for unhealthy products contain minorities, more specifically Blacks, and the primary actors for healthy products are Whites (Gilmore & Jordan, 2012; Harrison, 2006). We believe that if the Black participants are viewing television more, they might have been more exposed to this unbalance in representation and thus an association has been created that Blacks advertise unhealthy products while Whites advertise healthy products (Henderson & Baldasty, 2003). Therefore, when presented with advertisements of a White model endorsing an unhealthy product it may have created an expectancy violation. This expectancy violation may have caused Black participants to have more extreme evaluations of the White models in general.

In the current study we found that for some dependent variables, Black participants particularly responded more favorably when the White model portrayed the stereotypical sport as compared to the nonstereotypical sport. Further analyses revealed a significant main effect of race when it came to associating sports based on race, such that Black participants associated Whites more with baseball than did White participants; there was no main effect for either group when asked how much Blacks are associated with baseball or basketball, or how much Whites are associated with basketball. We believe that these results can be explained by the complex-extremity hypothesis.

The complex-extremity hypothesis suggests that because people have a more complex schema of in-group members versus out-group members, an out-group member will be evaluated more extremely (Linville & Jones, 1980, p. 691). More specifically, this polarized evaluation occurs when there are few dimensions by which the individual is judged (Jussim, Coleman & Lerch, 1987). In this study the dimensions were the race of the models and sport portrayed. In the current study we found that Black participants in particular wanted to consume the soda more, liked the soda more and reported that they would be more likely to purchase the soda when the
White model portrayed a stereotypical versus a non-stereotypical sport. As shown in Experiment 1 and in previous research Blacks are commonly associated with athleticism, because this is a common association, it could be predicted that it is part of the cognitive schema of both Blacks and Whites. On the other hand people may not always make the assumption of associating Whites with athleticism. Therefore, because Whites would have a more complex schema of their in-group, their overall evaluations were moderate according to whether the White model portrayed the stereotypical versus the non-stereotypical sport. However, according to complex-extremity hypothesis, because Black participants would have a less complex cognitive schema of Whites (the out-group), they evaluated the difference between when the when the white model portrayed a stereotypical sport (baseball) versus a nonstereotypical sport (basketball) more extremely (Qualls & Moore, 1990). Our finding is supported by research done by Jussum et. al., who find that when White participants were asked to evaluate positive and negative Black and White job applicants based on personal appearance and dialect, “the difference between the evaluations of the positive and the negative Black job applicants was of greater magnitude (i.e., more polarized) than that between the positive and negative White applicants” (Bentencourt et al., 1996; Jussum et al., 1987).

**General Discussion**

The purpose of these studies was to examine how race and stereotypes play a role in advertisements of beverages. While the race of the model and the portrayal of a stereotypical versus a non-stereotypical sport influenced perception and evaluation of the advertisements and beverages, results of both studies revealed that Black participants were more influenced by the race of the model than White participants. While, in Experiment 1, we found an ingroup bias such that Black participants responded more favorably when they viewed an advertisement with
a Black model, in Experiment 2, Black participants evaluated the advertisements with White models more favorably than when the model was Black. One explanation is that because Blacks may be more accustomed to seeing advertisements of ingroup members endorsing unhealthy products, when provided with an advertisement in which an out-group member, who usually advertises healthy products, is advertising an unhealthy product there was an expectancy-violation. Due to this expectancy-evaluation, Black participants evaluated the advertisements more extremely.

Furthermore, in Experiment 1 both Black and White participants’ evaluations were influenced by stereotypes; for the most part this occurred when the Black model portrayed a stereotypical sport—basketball. However, in Experiment 2 only the Black participants made evaluations based on stereotype consistencies with their evaluations favoring the White model portraying baseball. The results of Experiment 1 are consistent with the idea that Blacks are associated with athleticism and thus can be seen as experts when it come to a sport-related product. However because the beverage (soda) used in Experiment 2 was a non-sport related product it seems reasonable that the same associations were not made of the Black model and the sport portrayed. The findings of Experiment 2 could be a result of the less complex schema that Blacks have of Whites. Using the few dimensions provided (the race of the model and the sport portrayed), the White model who advertised a stereotypical sport versus a non-stereotypical sport was evaluated more extremely.

An alternative explanation that may address the differences between evaluations made by participants and more particularly Black participants in both experiments is the degree to which participants identify with others from their ingroup. Previous research has shown that positive evaluation of an advertisement featuring an ingroup member can be enhanced when viewed by
an ingroup members who strongly identify with their racial or ethnic group versus ingroup members who do not (Deshpandé, Hoyer and Donthu, 1986). Furthermore, when an advertisement portrays a Black actor in a stereotypical manner, cognitive process can be positively biased for both Black viewers who strongly identify with their ingroup and outgroup members (Whites) who hold less prejudiced attitudes toward Blacks. As the results of the ATB revealed, overall the White participants in Experiment 1 did not hold prejudicial beliefs about Blacks. Although we did not ask Black participants questions regarding their strength of identification to those in their ingroup, it possible that Black participants in Experiment 1 identified more strongly with their ingroup, which resulted in ingroup biases and favorable evaluations of the Black model while the Black participants in Experiment 2 overall might have not have strongly identified with their in-group which resulted in no ingroup bias. However, because we did not have questions regarding strength ingroup identifications, more research is needed to determine whether this factor contributed to our findings.

**Limitations and Future Studies**

Overall our findings support that the race of the actors and the stereotypes of the viewers can interact to affect how successfully advertisements can promote certain products. However, more research needs to be done to determine whether these factors affect consumer behaviors in real life. Because this was a self reported survey and conducted online, findings regarding perception or evaluations may not necessarily transfer to purchasing behaviors. Would these advertisements actually effect consumption and how much they would pay if participants were provided with these beverages in a lab setting? This is an important question to be addressed in future research.
Although our findings demonstrated that characteristics of an unknown athlete, such as their race, could influence perception of products, more research is needed to examine the effects of celebrity athletes in the endorsement of non-sport related products. In addition, future research should not just focus on the perception of the product when advertised by a celebrity athlete versus a non celebrity athlete but also examine whether they lead to actual consumption in daily life and other consumer behaviors.

A strength of our study is that we had a diverse sample of participants because we were able to recruit participants across the country. Much of the current research examining the role of food and beverage advertisements in the consumption is primarily focused on children and adolescents. Because of the broad range of our participants, our research was able to contribute to our understanding of the influence of these types of advertisements in adults. However, because the average age for both samples was between 30 to 40 years old and individuals from different age groups may hold different stereotypes and attitudes towards out-group members, future studies should test whether or not these effects differ as a function of age.

In conclusion, the findings of both of our studies provide evidence that through the use of peripheral cues such as stereotypes and race of actors, advertisements can have different effects on consumers and perception of the product. In our studies we found that Blacks were most influenced by these advertisements. This is an important finding. African-American, followed by Hispanic, children have the highest rate of obesity and also spend the most time watching television in the United States (Ogden et.al, 2012; Rideout, 2011; Skelton et.al, 2009). Given that children in general are already targeted by marketing strategies, the fact that Black adults were more influenced by the advertisements in this study suggest that Black children may be
influenced even more. Thus, future research is needed more specifically investigate at the effects of food and beverage advertisements among minority children.
References


Table 1: Experiment 1 demographics for Black and White Participants as a function of conditions.

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Table 2: Experiment 2 demographics for Black and White Participants as a function of conditions.

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Figure 1. How much participants would pay for sport drink as a function of Model’s Race and Model’s Sport
Figure 2. Encouragement by advertisement to consume the sport drink as a function of Model’s Race and Model’s Sport
Figure 3. Encouragement by advertisement to consume the sport drink as a function of Model’s Race and Participant’s Race.
Figure 4. Healthfulness of the sport drink when exercising or working out as a function of Model’s Race and Participant’s Race.
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Figure 6. How much drink would enhance performance as a function of Model’s Race and Participant’s Race.
Figure 7. Consumption if soda was available at the moment as a function of Model’s Race and Model’s Sport.
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Figure 9. Likelihood of soda purchase as a function of Model’s Race and Model’s Sport.
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Appendix C

Questionnaire

In this study, we will be asking your opinion about several different sports, your involvement in these sports, and some basic demographic information. We ask that you be honest in your responses. Your privacy is important to us and we will make every effort to protect your privacy. An arbitrary code number has been assigned to you for this study. All information that you supply will be kept in a password-protected database in a locked location. The results of this experiment will not be linked to your name or identity. Participation in this study is completely voluntary. If you choose to participate, you may stop at any time without any penalty. You may report dissatisfactions with any aspect of this experiment to the Chair of the Protection of Human Subjects Committee, Dr. Ray McCoy, 757-221-2783 or rwmcco@wm.edu and may contact Dr. Cheryl Dickter about this experiment to ask any questions or to obtain the results of this study after it is completed at 757-221-3722 or cldickter@wm.edu. By beginning this survey, you are agreeing to these terms.

How often do you play sports or work out?
- Never (1)
- Less than Once a Month (2)
- Once a Month (3)
- 2-3 Times a Month (4)
- Once a Week (5)
- 2-3 Times a Week (6)
- Daily (7)

Sports drinks are beverages whose stated purpose is to help replace water, electrolytes, and energy. Some examples of sports drinks include Gatorade, Powerade, Revive, Propel. However there are many others. We would like to learn more about which sports drinks you consume and when you typically consume them.

Answer the question below using the slider.
_____ In general how appealing are sports drinks to you? (1)

List up to three of your favorite sports drinks.
   Favorite (1)
   2nd Favorite (2)
   3rd Favorite (3)
How often do you drink sport drinks?
- More than once per day (1)
- 5-7 times per week (2)
- 3-4 times a week (3)
- 1-2 times a week (4)
- 1-2 times a month (5)
- 3-4 times per year (6)
- Never (7)

As you answer the following questions, think about the times that you consumed sports drinks over the past month.

- How often did you consume sports drinks before, during, or immediately after playing sports or working out? (1)
- How often did you consume sports drinks when you were not playing sports or working out? (3)

Model’s Picture (See Appendix A & B)

Please look at the picture above and answer the following questions using the scales provided.

- How likely would you be to consume this drink? (1)

Imagine you were given a typical (20 oz) bottle of this drink, use the slider below to indicate what percentage of it you would consume if...

- You were exercising? (1)
- You were not exercising? (2)

How much do you think you would like this drink?

- 1 (1)

In one full 20 oz bottle of this drink, ...
- how many servings do you think there are? (1)
- how many calories do you think there are? (2)

How healthy or unhealthy do you think it is to....

- Consume this drink before, during, or after working out or playing sports? (1)
- Consume this drink when not working out or playing sports? (2)

How likely would you be to purchase this drink?
- Extremely Unlikely (1)
- Unlikely (2)
- Neutral (3)
- Likely (4)
- Extremely Likely (5)
How much would you pay (in $) for a 20 oz bottle of this drink if
_____ you were working out or playing sports? (1)
_____ you were not working out or playing sports? (2)

Please answer the following questions using the scales provided.
_____ How likely would this drink enhance your performance? (1)

Model’s Picture

Please indicate your agreement with the following statements.
_____ The model in the picture above is attractive. (1)
_____ The model in the picture above is athletic. (2)
_____ The model in the picture above is similar to me. (3)
_____ This advertisement would encourage me to consume this sports drink. (4)
_____ I think this advertisement would encourage others to purchase this drink. (5)
_____ I think this advertisement is realistic. (6)
_____ I think others would find advertisement to be realistic. (7)

What is your ethnicity?
- Hispanic or Latino (1)
- Not Hispanic or Latino (2)

What is your race? Check all that apply.
- American Indian or Alaska Native (1)
- Hawaiian or Other Pacific Islander (2)
- Asian or Asian American (3)
- Black or African American (4)
- Hispanic or Latino (5)
- White (6)
- Other (7) ______________

How long have you live in the US? “Whole life” or “part of my life? If “part of life” where else have you lived?
- Whole life (1)
- Part of life (2) ______________

What is your gender?
- Male (1)
- Female (2)

What is your age in years?

How much do you weigh in pounds?
How tall are you? Please answer in feet and inches. For example, if you were 5 foot 3 inches you would respond in this manner: "5 ft 3 in"

How many years of schooling have you had? (check the last grade completed.)
- Grade School (1)
- High School (2)
- College (3)
- Graduate or other advanced education (4)

What is your occupation?

What is your family’s total yearly income?
- Under $10,000 (1)
- $10,000 - $14,999 (2)
- $15,000 - $24,999 (3)
- $25,000 - $34,999 (4)
- $35,000 - $49,999 (5)
- $50,000 - $74,999 (6)
- $75,000 - $99,999 (7)
- $100,000 or more (8)

How many people live in your household?

Please write a brief statement explaining what you think the purpose of this study is.
Appendix D

Attitudes Toward Blacks Measure
This questionnaire contains 20 questions concerning your opinions about current social issues. Please respond to each question in terms of the 1-to-7 scale below, where 1 = strong disagreement with the statement and 7 = strong agreement. Write a number from 1 to 7 that best represents your opinion on the line to the left of each question. Please answer every question; do not leave any out. There are no “right” or “wrong” answers; please be as honest and straightforward as you can. All responses will be treated confidentially and analyzed as group data only.

___ 1. I enjoy a funny racial joke, even if some people might find it offensive.
___ 2. If I had a chance to introduce Black visitors to my friends and neighbors, I would be pleased to do so.
___ 3. I would rather not have Blacks live in the same apartment building I live in.
___ 4. Racial integration (of schools, businesses, residences, etc.) has benefited both Whites and Blacks.
___ 5. I probably would feel somewhat self-conscious dancing with a Black in a public place.
___ 6. I think that Black people look more similar to each other than White people do.
___ 7. It would not bother me if my new roommate was Black.
___ 8. Interracial marriage should be discouraged to avoid the “who-am-I?” confusion which the children feel.
___ 9. If a Black were put in charge of me, I would not mind taking advice and direction from him or her.
___ 10. Generally, Blacks are not as smart as Whites.
___ 11. The federal government should take decisive steps to override the injustices Blacks suffer at the hands of local authorities.
___ 12. It is likely that Blacks will bring violence to neighborhoods when they move in.
___ 13. Black and White people are inherently equal.
___ 14. I get very upset when I hear a White make a prejudicial remark about Blacks.
___ 15. I worry that in the next few years I may be denied my application for a job or a promotion because of preferential treatment given to minority group members.
___ 16. I favor open housing laws that allow more racial integration of neighborhoods.
___ 17. Black people are demanding too much too fast in their push for equal rights.
___ 18. I would not mind it at all if a Black family with about the same income and education as me moved in next door.
___ 19. Whites should support Blacks in their struggle against
discrimination and segregation.

20. Some Blacks are so touchy about race that it is difficult to get along
Appendix E

Attitudes Toward Whites

The six items, drawn from Brigham's (1993) ATB and ATW scales, were modified to permit the measure to be administered to participants from several different racial groups simultaneously and asked participants to respond (1=“Strongly disagree” to 7=“Strongly agree”) to the statements:

(a) I would rather not have other-race students live in the same apartment building I live in

(b) It would not bother me if my new roommate was of a different race (reverse-scored);

(c) It is likely that a person of a different race than myself will bring violence into neighborhoods when they move in

(d) If a person of a different race were put in charge of me, I would not mind taking advice and direction from him or her (reverse-scored)

(e) Some people of other races are so touchy about race that it is difficult to get along with them;

(f) Interracial marriage should be discouraged to avoid the “who-am-I?” confusion which the children feel
Appendix F
Neophobia Scale (FN)

Please read the following statements carefully and circle the appropriate responses using the scale below:

<table>
<thead>
<tr>
<th></th>
<th>1 - EXTREMELY DISAGREE</th>
<th>5 - SLIGHTLY AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 - VERY MUCH DISAGREE</td>
<td>6 - VERY MUCH AGREE</td>
</tr>
<tr>
<td></td>
<td>3 - SLIGHTLY DISAGREE</td>
<td>7 - EXTREMELY AGREE</td>
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<tr>
<td></td>
<td>4 - NEITHER AGREE NOR DISAGREE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am constantly sampling new and different foods ................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I don’t trust new foods</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>If I don’t know what is in a food, I won’t eat it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I like foods from different countries</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Ethnic food looks too weird to eat</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>At dinner parties I will try a new food</td>
<td>1</td>
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<td>6</td>
<td>7</td>
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<tr>
<td>I am afraid to eat things I have never had before</td>
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<td>7</td>
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<tr>
<td>I am very particular about the foods I will eat</td>
<td>1</td>
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<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I will eat almost anything</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I like to try new ethnic restaurants</td>
<td>1</td>
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<td>7</td>
</tr>
<tr>
<td>I feel uncomfortable when I find myself in novel situations ...............</td>
<td>1</td>
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<tr>
<td>Whenever I’m away, I want to get home to my familiar surroundings ..........</td>
<td>1</td>
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<tr>
<td>I’m afraid of the unknown</td>
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<td>7</td>
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<tr>
<td>I am very uncomfortable in new situations</td>
<td>1</td>
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<td>4</td>
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<td>7</td>
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<tr>
<td>Whenever I am on vacation, I can’t wait to get home</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>7</td>
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<tr>
<td>I avoid speaking to people I do not know when I go to a party</td>
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<tr>
<td>I feel uneasy in unfamiliar surroundings</td>
<td>1</td>
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<td>7</td>
</tr>
<tr>
<td>I don’t like sitting next to someone I don’t know</td>
<td>1</td>
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<td>5</td>
<td>6</td>
<td>7</td>
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