



Am I In? Influence of Viewers' Race and Sex on Image Appeal for Higher Education Advertising

Joseph Erba, University of North Carolina at Chapel Hill, USA

Laurie Phillips, University of North Carolina at Chapel Hill, USA

Mugur V. Geana, University of Kansas, USA

Abstract

Diversification of recruitment advertising has become increasingly common across industries, including for institutions of higher education where promoting student body diversity is an on-going concern. In their recruitment activities, institutions go to extensive lengths to portray their campuses as racially and culturally diverse, including in promotional materials. Using custom images similar to those found in university promotional materials, this experimental study examines the influence of viewers' race and sex on short exposure to race- and sex-specific images. Guided by Social Identity Theory's in-group versus out-group premise, results suggest that participants' race and sex have a significant influence on image appeal and that race represents a more salient group identifier than sex for certain groups. Findings are compared with previous race-related advertising research, and implications for higher education ad messaging and avenues for future research are discussed.

Keywords: Interracial advertising; Diversity; Race; Recruitment images; Higher education; Social identity theory



Introduction

Over the past few decades, many leading trade associations such as the American Society of Newspaper Editors (ASNE), the Public Relations Society of America (PRSA) and the Radio Television Digital News Association (RTDNA) have challenged the mass communication industry to increase their hiring of minority professionals to better reflect the racial diversity of U.S. society (ASNE, 2010; PRSA, 2010; RTDNA, 2011). Similar demands were made in the advertising industry by the American Association of Advertising Agencies when it was discovered in 1963 that less than 1 percent of New York advertising agency employees were African-American (Patel, 2010). While racial minorities currently constitute 27.6 percent of the U.S. population (U.S. Census Bureau, 2010), historically their representation in the mass communication industry has remained disproportionately low (Coleman, 2011). Specific projects, such as “The Pursuit of Passion: Diversity in Advertising,” “The Madison Avenue Project” and “Where Are All The Black People?” were recently launched to end racially discriminatory ad practices. While these initiatives focus on the communication industry’s racial composition by calling attention to the lack of diversity, it is as important to consider the status of racial minority students in mass communication programs nationwide because professional schools serve as the training ground for future employees.

In order to produce racial minority communicators, institutions of higher education have to first recruit and train minority students. However, racial minorities currently constitute about 22 percent of students studying mass communication, journalism, or related fields (U.S. Department of Education, 2011). The two largest U.S. racial minority groups, Latina/os and African Americans, who make up 16.3 percent and 12.3 percent of the U.S. population, respectively, represent 7.3 percent and 9.8 percent of students enrolled in journalism and mass communication programs (U.S. Census Bureau, 2010; U.S. Department of Education, 2011). In addition, Latina/o and African-American students have one of the highest college attrition rates (American Council on Education, 2010). In an effort to boost minority recruitment, institutions of higher education have increasingly portrayed a racially diverse student body in their promotional images (Boyer, Brunner, Charles & Coleman, 2006; Hartley & Morphew, 2008).

The purpose of this study is to explore whether the use of racial minority student images does in fact appeal to racial minority students. Specifically, this study examines how race- and sex-



specific higher education promotional images affect black and white students' image appeal. Previous studies have focused on university messaging content and have noted the overrepresentation of racial minority students (Boyer, Brunner, Charles & Coleman, 2006; Harley & Morphew, 2008; Hite & Yearwood, 2001), but no published research has tested the appeal of these promotional images to either minority students or secondary audiences.

Taylor (2011) recently invited researchers to focus more efforts on advertising and minority groups, stating that researchers should go beyond descriptive studies and explore ad appeal for majority and minority groups. While image appeal for all minority groups should be studied, this study specifically focuses on black and white students because they are the two most represented racial groups on university campuses, 9.78 percent and 71.48 percent respectively (U.S. Department of Education, 2011).

In this manuscript, “Black” is used as a noun to refer to people of African and Caribbean descent, while “black” is used as an adjective. Similarly, “White” refers to people of Caucasian descent, while “white” is used as an adjective. The authors use “race” to refer to participants' visible identity based on common phenotype traits and how the latter think of themselves as members of a racial group (Miville, 2010). In a similar vein, “sex” is used when referring to the biological differences between men and women, as opposed to gender, which psychologists have argued refers to psychological differences between masculinity/male and femininity/female (Unger, 1979).

Model diversification within recruitment advertising has become increasingly common across industries (Digh, 1999; Doverspike, Taylor, Schultz & McKay, 2000; Thaler-Carter, 2001). To recruit a racially diverse applicant pool, organizations routinely portray their employees as racially diverse (Belt & Paolillo, 1982; Perkins, Kecia & Gail, 2000). Empirical evidence of the effectiveness of this positioning has been found: Blacks' organizational appeal level increased when organizational advertisements featured black models, while Whites' appeal levels remained constant regardless of the advertisement's racial composition (Avery, Hernandez & Hebl, 2004; Perkins, Kecia & Gail, 2000).

Although the effects of organizational recruitment materials on potential employees have been studied, researchers have overlooked how the depiction of a racially diverse student



body in academic recruitment materials affects potential students. From a marketing perspective, institutions of higher education segment and target potential applicants by positioning and differentiating their product. Colleges and universities typically use promotional materials illustrating a diverse student body in their attempts to communicate their diversity proposition to potential students. While previous educational research has focused on increasing black student retention, as opposed to actual recruitment, it is imperative that mass communication researchers study how institutions of higher education target black students. Subsequently, this study offers the first experimental examination of students' appeal for academic promotional materials.

The Diversification of Advertising

Despite the fact that Blacks constitute nearly 13 percent of the U.S. population (Humes, Jones & Ramirez, 2011) and are projected to have a buying power of \$1.1 trillion by 2014 (Humphreys, 2009), the use of black models in advertising to attract both black and white consumers to a product or service is a relatively new development in the course of advertising history. To understand both the increase and diversification of black models in advertising, it is imperative to understand how what marketers once labeled as the “Negro Market” (Petrof, 1968) morphed into today's Black market segment, predominantly taking its shape after the Civil Rights Act (1964) and the Voting Rights Act (1965) were passed (Chasin, 2000; O'Barr, 1994). While a complete history of blacks in advertising is beyond the scope of this study, a brief overview of black ad representation is provided below to contextualize the issue.

Researchers have been studying blacks in advertising for more than 40 years through assessing representation, the effectiveness of minority-targeted ads, and most recently, multiculturalism (Taylor, 2011). Early studies demonstrated black models were either heavily stereotyped (Pettigrew, 1965) or were virtually non-existent in certain media outlets (Kassarjian, 1969). Pre-1940s, Blacks were depicted alongside racist identifiers such as watermelons, bandanas, and cotton, under taglines illustrating presumably Black dialects, or almost exclusively in service positions (O'Barr, 1994). From the mid-1940s through the mid-1980s, representation began to shift shape as the portrayal of blacks as blue-collar and unskilled workers decreased while portrayals of black fashion models and businesspeople steady increased (Chapko, 1976; Colfax & Sternberg, 1972; Cox, 1970; Humphrey &



Schuman, 1984; Kassarian, 1969; O'Barr, 1994). Some agencies and their clients were nevertheless reluctant to hire black models, fearing that the use of black models to promote products would result in a “white backlash” and ultimately negatively impact sales figures (Colfax & Sternberg 1971; Kassarian, 1969; Stevenson, 1992).

Stafford and his colleagues (1970) were among the first researchers to show that using black and white models in an ad does not inherently alienate white consumers. Schlinger and Plummer (1972) included black participants in their study and found that not only did the latter display a stronger appeal for the ad featuring exclusively black models, but furthermore models' race did not influence white consumers' reactions to the ad. Over the next few decades, researchers consistently replicated these findings, thus invalidating marketers' fears about a potential white backlash (Appiah, 2007; Bush, Hair & Solomon, 1977; Chapko, 1976; Choudhury and Schmid, 1974; Guest, 1970; Kerin, 1979; Muse, 1971; Whittler, 1989, 1991; Williams, Qualls & Grier, 1995). Choudhury and Schmid (1974) stated that using black models had the potential to be a “very positive marketing approach” to appeal to both black and white consumers (p. 21), while Whittler (1989) asserted that “since [B]lacks respond favorably and [W]hites do not react negatively to black actors, it would seem that advertisers have more to gain than lose by including black actors in advertisements for mixed audiences” (p. 305).

Despite researchers' findings suggesting that ads with black models broaden audience appeal, marketers have mainly relegated the use of black models for specific product categories (clothing, shoes and accessories) or relied upon black celebrities as product endorsers, specifically professional athletes, musicians, and other entertainers, in ads targeted to adults and children alike (Appiah, 2007; Bailey, 2006; Henderson & Williams, 2004; Maher, Herbst, Childs & Finn, 2008; O'Barr, 1994). Furthermore, most ad settings that incorporate black models also suggests that Blacks do not belong to the corporate world given their rare depiction within the corporate setting (Ainsworth, 2006). As Motley, Henderson, and Menzel Baker (2003) asserted, “marketing materials with stereotypic depictions of African Americans have played a major role in the framing and understanding of American culture” (p. 55).



Recent research reiterates many of these earlier findings pertaining to black representation in advertising, as content analyses have demonstrated that Blacks continue to be portrayed in stereotypical employment positions, selling a very narrow array of products (Bailey, 2006), and discrepancies remain between black ad representation and numerical presence of black consumers in various markets (Maher et al., 2008). The exception to this rule is B2B advertising in which increasing frequency of appearance, gender differences, and varying occupational roles among Blacks were found over a six-decade period (Stevenson & Swayne, 2011). Moreover, researchers have found that while the most effective ads for reaching black consumers are indeed those featuring black models (Appiah, 2007; Elias & Appiah, 2010; Elias, Appiah & Gong, 2011), white consumers remain impartial about black representation in advertising. As Green (1999) demonstrated, however, within-group differences among black consumers cannot and should not be overlooked, as a one-size-fits-all depiction of Blacks in advertising is non-existent.

As Williams, Lee, and Henderson (2008) argue, “it becomes questionable whether theories developed and tested for, by, and of the dominant consumer groups (i.e., White, European Americans) can be appropriately applied to ethnic minority consumer groups,” particularly when minorities are so rarely consciously included within the research design (p. 878). While the authors acknowledge that significant advancements have been made in the nearly five decades’ long study of Blacks in advertising, they argue that there is much to be learned about diversity in advertising considering but not limited to race. Their sentiment has been reiterated in editorial calls for more research on minority groups in advertising (Lee, Williams & La Ferle, 2004; Taylor, 2011), and consideration of the differences between types of promotional materials must also be given as well. Offering a rare glimpse of ad messaging in which Blacks are routinely portrayed in a positive light, this study examines higher education recruitment materials.

Black models are now predominantly displayed in promotional and recruitment materials for various industries, such as finance, insurance and computer companies (Digh, 1999; Thaler-Carter, 2001). Similarly, institutions of higher education which have become increasingly competitive in recruiting students as public relations professionals carefully craft promotional images that will appeal to a racially diverse applicant pool (Boyer, Brunner, Charles & Coleman, 2006; Harris, 2009; Hartley & Morphew, 2008; Sung & Yang, 2008). These



promotional images help universities effectively brand themselves and begin to establish a relationship with important stakeholders (Harris, 2009). Portraying racial minority students in promotional imagery represents a way for institutions to “foster the ethnic identification process of minority students” with a particular school or program (Boyer et al., 2006, p. 140).

Most university promotional images depict a racially diverse student body where students interact in a warm, inviting environment (Hartley & Morpew, 2008; Hite & Yearwood, 2001). Indeed, numerous institutions use images of racial minority students to demonstrate their commitment to diversity but then fall short of clearly addressing diversity matters in their promotional materials, such as resources available for minority students on campus as well as in the local community (Boyer et al., 2006; Hartley & Morpew, 2008). This overemphasis on racially sensitive imagery in spite of institutions’ actual student body composition seems to suggest that promotional materials are merely indicative of institutions trying to reach enrollment goals as opposed to a long-term commitment to retention (Harris, 2009). It is hypothesized that such images are specifically targeted toward potential racial minority applicants.

Research on university recruitment and promotional images is “*very limited*” and often relegated to content analyses of related imagery (Hartley & Morpew, 2008, p.673, italics in original). Seeking to empirically examine how black and white students respond to institutional messages that depict a diverse student body, this study employs experimental design and incorporates Social Identity Theory (SIT) as a framework for testing how race- and sex-specific promotional images affect black and white students’ image appeal.

Theoretical Framework

Tajfel and Turner (1979) developed SIT as an adaptation and expansion of existing social psychological theories of intergroup behavior. Social identity supposes that group memberships, which can be viewed positively or negatively, help define an individual’s social identity and that a group’s perceived positivity or negativity is defined by comparing one group to another through both inter- and intragroup comparisons. Positive social identity is based to a large extent on favorable comparisons that can be made between the in-group and some relevant out-groups; the in-group must be perceived as positively differentiated or distinct from the relevant out-groups. Tajfel and Turner elaborate that social identity is



influenced by the fact that individuals must first acknowledge: a) the existence of their group membership; and b) that considerable intergroup comparisons must be made between in-groups and out-groups, since all groups do not compare themselves against one another.

As previous advertising research guided by SIT has shown, advertisement effectiveness is impacted by model representation: consumers responded stronger to in-group images whether the variable of interest was race, ethnicity, sex, or sexual orientation (Bhat, Leigh & Wardlow, 1998; Burgess, 2003; Elias, Appiah & Gong, 2011; Hester & Gibson, 2007; Leigh, Rethans & Whitney, 1987; Merskin, 2001; Oakenfull & Greenlee, 2004; Scott, 1994; Tuten, 2005; Whittler, 1991; Williams & Qualls, 1989). SIT has been tested in a variety of mass communication studies today, but the theory has received pushback within the field of social psychology (Abrams & Hogg, 1988; Blanz, Mummendey, Mielke & Klink, 1998; Brown, 2000; Brown & Ross, 1982; Doosje, Spears & Koomen, 1995; Grant, 1993; Lemyre & Smith, 1985; Mummendey et al., 1992; Perreault & Bourhis, 1998; Roccas & Schwartz, 1993; Rubin & Hewstone, 1998). Researchers have sought to build upon SIT through multiple iterations, one of the most recent of which incorporates a model of social identity formation that considered interactive groups processes and “intragroup negotiation and debate” (Postmes, Haslam & Swaab, 2005, p. 34), and the conceptualization of identity continues to be a widely studied variable across disciplines (Williams, Lee & Henderson, 2008).

Scholars have repeatedly tested and critiqued SIT but the consensus is that the theory provides a testable framework for understanding in-group versus out-group differences (Brown, 2000). Under SIT, in-groups will favor their own, and it therefore follows that within the context of this study, black participants will have the most favorable perceptions of black models. Correspondingly, whites will favor white models and women and men will favor depictions of their respective sexes.

Guided by SIT’s in-group versus out-group premise and previous literature on integrated ads, this study seeks to answer and test the following research questions and hypotheses:

R.Q.1.: How does viewer race affect appeal to race- and sex-specific university recruitment images?



H.1.a.: Black students will display a stronger appeal for the images depicting only black models than for the other images.

H.1.b.: White students will display a stronger appeal for the images depicting only white models than for the other images.

H.1.c.: White students will display a stronger appeal than black students for the images depicting black and white models.

R.Q.2.: How does viewer sex affect appeal to race- and sex-specific university recruitment images?

H.2.a.: Black men will display a stronger appeal for the images featuring at least one black man than for images with no black men.

H.2.b.: Black women will display a stronger appeal for the images featuring at least one black woman than for images with no black women.

H.2.c.: White men will display a stronger appeal for the images featuring at least one white man than for images with no white men.

H.2.d.: White women will display a stronger appeal for the images featuring at least one white woman than for images with no white women.

Method

As opposed to other studies that have used college students as participants for convenience purposes, this study is specifically interested in examining students' appeal to race- and sex-specific university recruitment images, thus students are the population of choice for this study. Because institutions routinely depict racial minority students in their recruitment images, it is important to test if students' image appeal is affected by models' race and sex. Accordingly, black and white undergraduate students enrolled in a large, predominantly white Midwestern university were used as the study's population. The university is the largest in its state and aims at attracting students from various backgrounds, states and countries. At the time the study was conducted, approximately 3.4 percent of the university's 30,000 students were black, while nearly 78 percent were white.

Participants were recruited with assistance from instructors of large social sciences courses who allowed one of the researchers to make a brief announcement at the beginning of class and distribute a sign-up sheet. Due to the university student body demographics, black participants were also recruited with emails sent to black student organizations. Student



participation was voluntary and responses were treated as confidential, only aggregate data were reported and used in the analysis, and the study was approved by the university's Institutional Review Board.

One hundred and sixty-five participants completed the experiment. Upon completion of the experiment, participants answered an open-ended question to self-identify their race, and their responses were then divided in three categories: black, white and other. Out of the 165 participants, 141 met the study's requirements and were retained for the analysis. Thirty-seven participants self-identified as black (23 women and 14 men), and 104 participants self-identified as white (60 women and 44 men). Responses from the 24 other participants were removed prior to the analysis because they racially self-identified as Hispanic or Middle-Eastern.

A 2 (participant's race: black or white) X 2 (participant's sex: man or woman) experimental setting was used to test for influence of race and sex on perceived image appeal. Ten different images depicting two broadcast news anchors in professional attire were photographed exclusively for the study in order to control model race and sex, mirroring those used for journalism school recruitment purposes. The models' racial identity used in the experimental stimuli was solely based on their visible identity as black or white, men or women. The background of all ten images was the same, and all models were dressed alike to ensure that only the models' race and sex differed. All participants were exposed to the ten different images, divided into three categories: images of black students only; white students only; and black and white (integrated) students. The first two categories contained three images each, differentiated by model sex: men only; women only; and both a man and a woman. The category with both racial groups contained four images to account for all possible race-sex combinations.

Each image was presented on screen for six seconds, and the image presentation order was randomized using MediaLab software (Jarvis, 2006a). Instant appeal was measured with a continuous measurement method during image viewing using a hand-held linear potentiometer (slider) marked on a scale from 0 (very negative) to 9 (very positive) operating in Direct RT. Participants were told they would be exposed to a series of images and would be asked to rate their image appeal. Participants were then trained to use the slider and



instructed to return it to a neutral position after rating each image. A reminder message to put the slider in neutral before the next image was displayed appeared on the computer screen between each image. Output data were recorded at a frequency of 100 Hz on a 0 to 5 V scale in 1 mV increments (Jarvis, 2006b).

Results

Data were sorted by maximum and minimum values for each participant's exposure to every image, and the largest modular difference between maximum value and mean (2.5 V) was kept for each participant as the final value representing the image appeal level. No further transformations were performed on the dataset, and all analyses were conducted in SPSS version 18.

Normality analysis confirmed the data are normal. The following abbreviations will be used for the results and discussion sections of this manuscript for race/sex image correspondence: WW-WW: white woman with white woman; WW-WM: white woman with white man; WM-WM: white man with white man; BW-BW: black woman with black woman; BW-BM: black woman with black man; BM-BM: black man with black man; WW-BW: white woman with black woman; WW-BM: white woman with black man; BW-WM: black woman with white man; WM-BM: white man with black man.

R.Q.1.: How does viewer race affect appeal to race- and sex-specific university recruitment images?

Participants were divided by race, and mean scores for each image suggest that black participants showed the strongest appeal level for the all-black images. Indeed, black participants displayed a clear pattern in which their appeal for the three all-black images was higher than their appeal for the four integrated images. Black participants' appeal for the three all-white images was the lowest (see Figure 1).

White participants' image appeal does not suggest a pattern as clear as that of black participants, however. Results showed that white participants most favored an integrated image (WW-BM) and least favored all-black imagery (BM-BM). Interestingly, apart from the

latter image, white participants displayed a stronger image appeal for the other two all-black images than they displayed for the WM-WM image (see Figure 1).

To explore the effect of participants' race and sex on image appeal, a series of two way 2 (participant's race) X 2 (participant's sex) analysis of variances (ANOVA) were conducted with image appeal as the dependent variable. Main effects for race, sex, and the interaction were then examined to test the hypotheses.

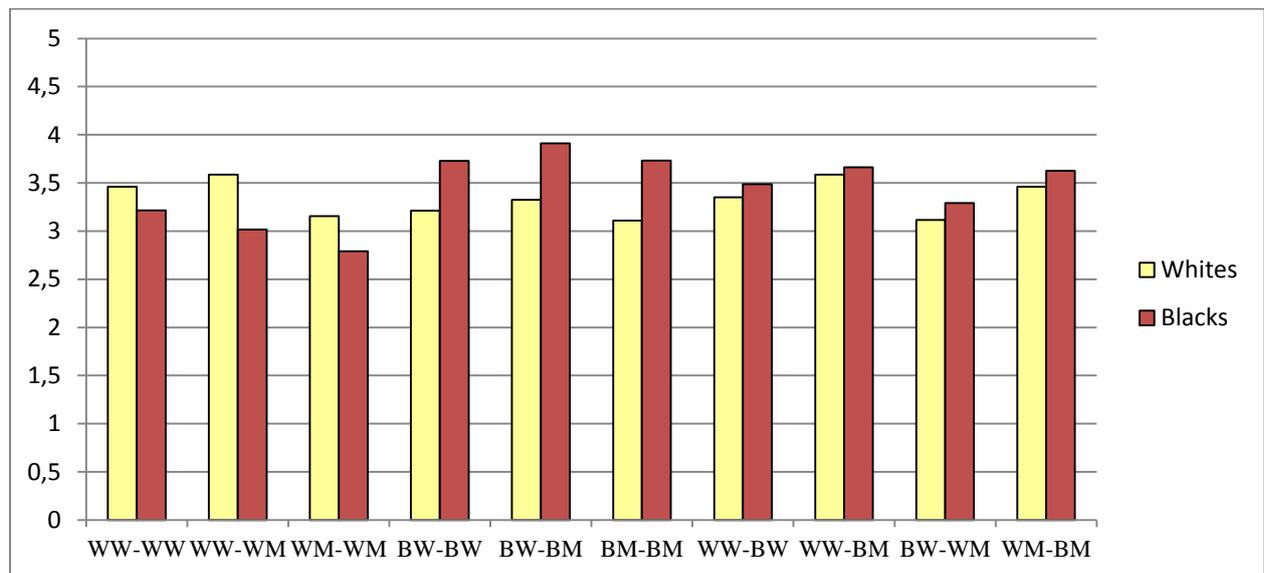


Figure 1. Mean scores of black and white participants' appeal levels for each experimental treatment.

H.1.a.: Black students will display a stronger appeal for the images depicting only black models than for the other images.

ANOVAs revealed a statistically significant main effect of race on participants' appeal to the three images depicting only black models (see Tables 1, 2 and 3). In each case, black participants (BW-BW: $M = 3.68$, $SD = 1.00$; BW-BM: $M = 3.87$, $SD = 1.01$; BM-BM: $M = 3.64$, $SD = 1.10$) displayed statistically significant higher appeal levels for the all-black images than did white participants (BW-BW: $M = 3.23$, $SD = 1.00$; BW-BM: $M = 3.33$, $SD = 1.01$; BM-BM: $M = 3.09$, $SD = 1.02$) for the same imagery, thus validating this hypothesis.



Table 1: 2 X 2 ANOVA for participants' appeal levels to the Black Woman-Black Woman image

	SS	df	MS	F	η^2
Race (R)	6.96	1	6.96	7.00**	.05
Sex (S)	.16	1	.16	.16	.00
R X S	3.57	1	3.57	3.60	.02
Error	136.08	137	.99		

** $p < .01$

Table 2: 2 X 2 ANOVA for participants' appeal levels to the Black Woman-Black Man image

	SS	df	MS	F	η^2
Race (R)	8.86	1	8.86	8.67**	.06
Sex (S)	.73	1	.73	1.05	.00
R X S	1.08	1	1.08	3.60	.01
Error	140.09	137	1.02		

** $p < .01$

Table 3: 2 X 2 ANOVA for participants' appeal levels to the Black Man-Black Man image

	SS	df	MS	F	η^2
Race (R)	10.11	1	10.11	9.67**	.06
Sex (S)	6.66	1	6.66	6.36*	.04
R X S	2.29	1	2.29	2.19	.01
Error	143.29	137	1.05		

* $p < .05$; ** $p < .01$

H.1.b.: White students will display a stronger appeal for the images depicting only white models than for the other images.

ANOVAs revealed a statistically significant main effect of race on participants' appeal to only one of the three images depicting exclusively white models (see Table 4). White participants ($M = 3.60$, $SD = 0.82$) displayed statistically significant higher appeal levels for the image featuring a white woman with a white man than did black participants ($M = 3.03$,



$SD = 0.98$). There were no statistically significant differences between white and black participants' appeal for the other two all-white images. Therefore, this hypothesis was only partially validated.

Table 4: 2 X 2 ANOVA for participants' appeal levels to the White Woman-White Man image

	SS	df	MS	F	η^2
Race (R)	8.37	1	8.37	11.23**	.07
Sex (S)	.90	1	.90	1.21	.01
R X S	.08	1	.08	.11	.00
Error	102.17	137	.75		

** $p < .01$

H.1.c.: White students will display a stronger appeal than black students for the images depicting black and white models.

Apart from the four images previously mentioned (three all-black and one all-white), no statistically significant differences were found between black and white participants' appeal to the other six images. In other words, participants' race did not affect their appeal levels for any of the four integrated images, thus invalidating this hypothesis.

R.Q.2.: How does viewer sex affect appeal to race- and sex-specific university recruitment images?

Next, participants were divided by sex to determine if sex accounted for differences in image appeal. Overall, women displayed higher appeal levels for the all-white images than did men. Conversely, men displayed higher appeal levels for the all-black images than did women (see Figure 2).

Women favored the white woman/black man image the most, while men favored the black woman/black man image the most. However, participants' sex was determined to be statistically significant for only one image: the image depicting two black men (see Table 3). Men ($M = 3.67$, $SD = 0.16$) displayed a statistically significant higher appeal for the BM-BM image than women ($M = 3.17$, $SD = 0.13$).



An interaction effect was found for the white man/black man image (see Table 5). Black men ($M = 3.97$, $SD = 0.24$) displayed a statistically significant higher appeal for this image than did white men ($M = 3.27$, $SD = 0.14$), while white women ($M = 3.65$, $SD = 0.12$) displayed a statistically significant higher appeal for the WM-BM image than did black women ($M = 3.28$, $SD = 0.19$).

Table 5: 2 X 2 ANOVA for participants' appeal levels to the White Man-Black Man image

	SS	df	MS	F	η^2
Race (R)	.72	1	.72	.87	.01
Sex (S)	.65	1	.65	.79	.01
R X S	7.36	1	7.36	8.93**	.06
Error	112.89	137	.24		

** $p < .01$

Both women and men displayed the lowest appeal levels for the image depicting two white men. Women displayed higher appeal levels than did men for two of the three women-only images (WW-WW and WW-BW), while men displayed higher appeal levels than did women for two of the three men-only images (BM-BM and WM-BM) (see Figure 2).

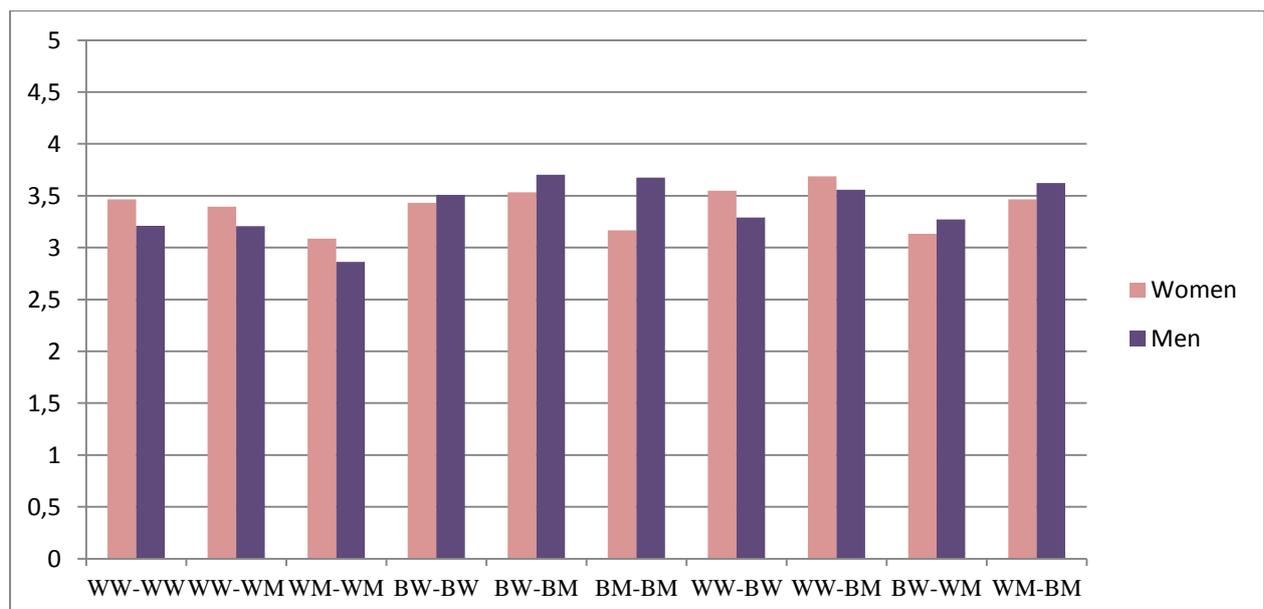


Figure 2. Mean scores of women and men appeal levels for each experimental treatment.

After having looked at participants' results based on their race and sex, black and white participants' results were separated by sex for further analysis. A series of one-way ANOVAs were conducted to test the effect of sex on black and white participants' image appeal.

H.2.a.: Black men will display a stronger appeal for the images featuring at least one black man than for images with no black men.

Four of the ten images featured a black man. Descriptive statistics revealed that the three images that most appealed to black men featured at least one black man (BM-BM, BW-BM and WM-BM, respectively). Black men' appeal levels for the WW-BM image ranked fifth (see Figure 3).

ANOVAs revealed that black men ($M = 4.13$, $SD = 0.28$) displayed a statistically significant stronger appeal for the image depicting two black men than did black women ($M = 3.33$, $SD = 0.22$) ($F(1,35) = 5.24$, $p < 0.05$, $\eta^2 = 0.13$). Black men ($M = 3.97$, $SD = 0.25$) also displayed a statistically significant stronger appeal for the WM-BM image than did black women ($M = 3.28$, $SD = 0.19$) ($F(1,35) = 4.79$, $p < 0.05$, $\eta^2 = 0.12$), rendering this hypothesis partially validated.

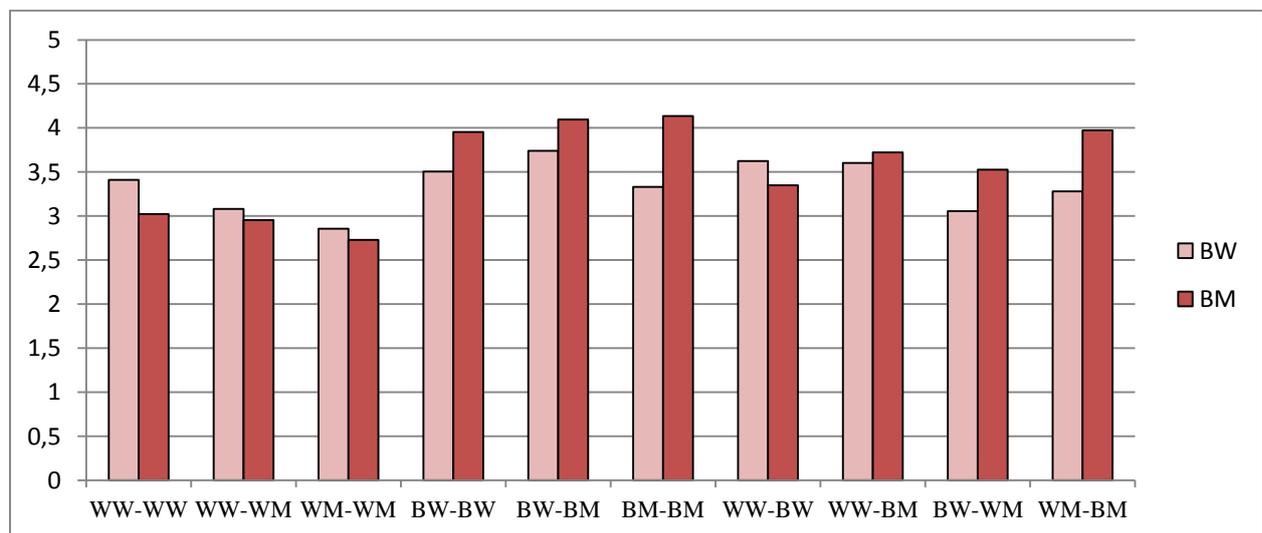


Figure 3. Black participants' appeal levels to the experimental treatments by sex.

H.2.b.: Black women will display a stronger appeal for the images featuring at least one black woman than for images with no black women.

No statistically significant differences were found for black women’ appeal levels for images featuring at least one black woman. Descriptive statistics revealed that the two images for which black women displayed the strongest appeal featured a black woman (BW-BM and WW-BW, respectively). Black women’ appeal levels for the BW-BW and BW-BM images ranked fourth and ninth, respectively (see Figure 3), rendering this hypothesis invalid.

H.2.c.: White men will display a stronger appeal for the images featuring at least one white man than for the images with no white men.

No statistically significant differences were found for white men’ appeal levels for images featuring at least one white man. Descriptive statistics revealed that the image for which white men displayed the strongest appeal featured a white man (WW-WM). White men’ appeal levels for another image featuring a white man ranked fifth (WM-BM) while appeal levels for BW-WM and WM-WM images ranked second to last and last, respectively. Consequently, this hypothesis was also invalidated.

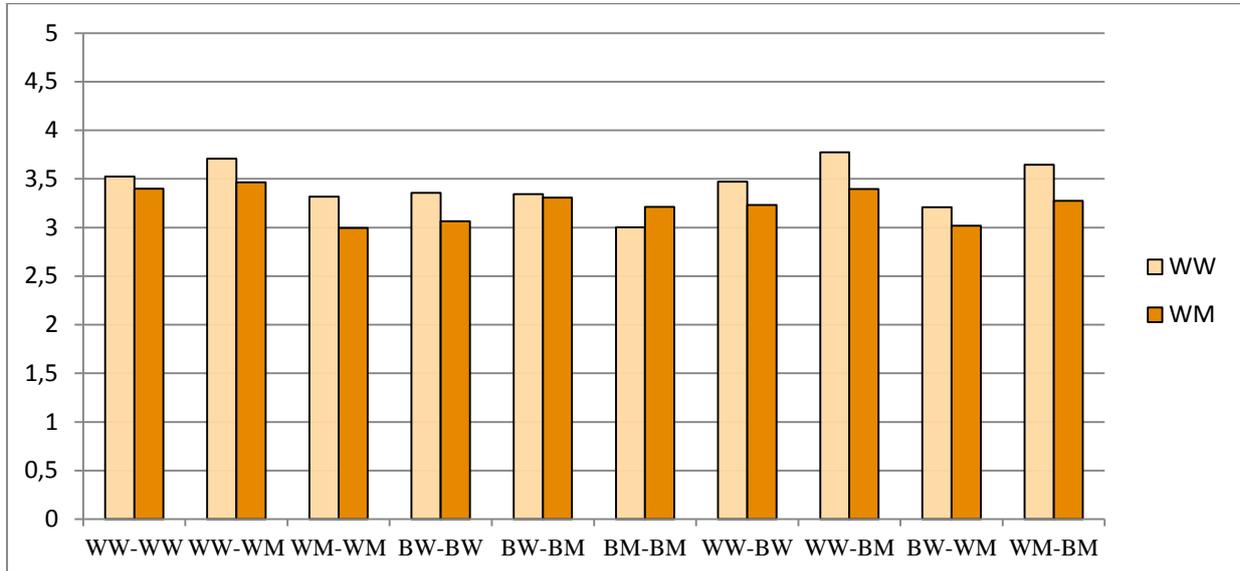


Figure 4. White participants’ appeal levels to image treatments by sex.

H.2.d.: White women will display a stronger appeal for the images featuring at least one white woman than for images with no white women.



White women ($M = 3.78$, $SD = 0.10$) displayed a statistically significant stronger appeal for the image depicting a white woman with a black man than did white men ($M = 3.34$, $SD = 0.12$) ($F(1,102) = 5.79$, $p < 0.05$, $\eta^2 = 0.05$). Although not featuring a white woman, white women also ($M = 3.65$, $SD = 0.12$) displayed a statistically significant stronger appeal for the image depicting a white man with a black man than did white men ($M = 3.27$, $SD = 0.14$) ($F(1,102) = 4.40$, $p < 0.05$, $\eta^2 = 0.04$).

Descriptive statistics revealed that the two images for which white women displayed the strongest appeal featured a white woman (WW-BM and WW-WM, respectively). White women' appeal levels for the other two images featuring at least one white woman ranked fourth (WW-WW) and fifth (WW-BW). This last hypothesis was also invalidated.

Discussion

This study explored whether the use of race- and sex-specific images in university promotional images influences black and white students' image appeal. Findings offer an interesting new perspective on SIT and integrated advertising. While black students displayed a significantly stronger appeal for all the images depicting black models only, as predicted by SIT, these results were *not* replicated for white students' appeal levels for images depicting exclusively white models, thus refuting SIT's predictions. Indeed, white students displayed a significantly stronger appeal for only one image from the all-white group: the image featuring a white woman with a white man. In addition, contrary to other studies that found that white audiences favor integrated advertising more than black audiences, this study did not find any significant differences between black and white students' appeal levels for the integrated images.

These findings suggest that the conclusions drawn from previous research on black consumers' reactions to commercial messages for tangible products do not completely apply with high-cost intangible products such as education. The similarities between appeal for consumer products and university promotional images are that black students favored images depicting an all-black student population (the in-group) the most and images depicting an all-white student population (the out-group) the least. In addition, white students equally favored the all-white and integrated images.



SIT states that people will favor their own. In this study, we divided participants based on their race and hypothesized that Whites will favor images depicting Whites, and that Blacks will favor images depicting Blacks. SIT's predictions were only validated in the latter case. Members of racial minority groups consider their race to be a more salient part of their identity than members of a dominant race do (Harris, 1995). In the U.S., white people are rarely put in a position to think of themselves as racialized individuals, and thus they do not consider race to play an important role in their lives (Obre & Harris, 2008). Therefore, white students may not have displayed a significant stronger appeal for the all-white images because they do not perceive themselves in terms of being white.

Participants' sex also affected their appeal for the images, although overall, this effect was not as strong as participants' race. As predicted by SIT, both women and men favored images depicting at least one model of their sex. However, only the image depicting two black men revealed a statistically significant difference between men and women, with men displaying a significantly stronger appeal for that image than women. Findings also suggest that white women seemed more open to the idea of racial integration in promotional materials than did white men. Indeed, white participants' sex significantly influenced women' image appeal for the two integrated images featuring a black man.

Results also revealed sex differences within racial groups. Black participants' sex significantly affected their image appeal for two of the four images featuring at least one black man. It is interesting to note that these two images were the only ones depicting a black man with another man, a black man in the first case, and a white man in the second. The other two images depicted a black man with a black woman, and a black man with a white woman. In this case, sex-identification was more salient for black men than race-identification. No statistically significant results were found for black women' appeal levels for images featuring at least one black woman.

Such results were *not* replicated for white participants. Indeed, while not significant, white men displayed the *lowest* appeal levels for the image depicting two white men, thus refuting SIT's predictions. One reason for this low rating could be that over the past few centuries, white men have constituted the bulk of all students at U.S. institutions of higher education and only recently have women surpassed men with regards to enrollment and degree



completion (Lewin, 2006). It is thus hypothesized that perhaps white men find the imagery refreshing and may prefer to see images of others because for decades they have seen like images in not only academic recruitment materials, but furthermore nearly all advertisement messaging. This assumption should be tested empirically in future studies.

White women displayed a statistically significant stronger appeal for two images: the one depicting a white woman with a black man, and the one depicting a white man with a black man. Similar to the findings regarding white men, white women defied SIT's predictions by only displaying a statistically significant stronger appeal for one of the four images featuring a white woman. In addition, one of the images white women significantly favored did not even feature a white woman.

It is important to note that the eta-squared values for the four images that revealed a significant influence of participants' race on their image appeal varied between 0.05 and 0.07. In other words, participants' race accounted for less than 10 percent of the variance in image appeal. The highest eta-squared value ($\eta^2 = 0.13$) in this study was found when looking at the effect of black participants' sex on BM-BM image appeal.

Limitations

The findings on black students' appeal levels for race- and sex-specific university promotional images should be interpreted with caution. Although the number of black participants was large enough to conduct statistical analyses for main effects of race and sex regarding all participants, specific findings for sex differences within black participants need to be confirmed in a larger sample of black students. In addition, this study tested images that included just two models displayed on a computer monitor. The study's design could be enhanced by testing images with more than two models from various races, and across media outlets to include multimedia websites, television and radio commercials, billboards, and direct mail information packets. Lastly, the fact that this study focused on a particular program (journalism) could be a potential limitation because it is only representative of one aspect of a university's academics; future research should include imagery of students within other disciplines.



Conclusion

Our findings indicate that the use of race- and sex-specific university promotional images does influence black and white students' image appeal. It is important to note that while some participants displayed extremely low appeal levels for certain images, overall results suggest that none of the images provoked a negative response among participants.

While SIT dictates that in-groups will favor their own, our findings illustrate the complexity that two non-exclusive group memberships (race and sex) bring to SIT's predictions. Overall, students placed more importance on their racial identification, as demonstrated by black students whose race significantly influenced their strong appeal for the all-black images, regardless of their sex or of the models' sex.

However, when focusing our analysis solely on black participants, sex becomes a stronger prediction for in-group identification than race. Indeed, black men significantly favored an image depicting a black man with a white man. On the contrary, our analysis of only white participants revealed that white women also significantly favored the image depicting a black man with a white man, and the image depicting a white woman with a white man. It is interesting to note that the former image does not feature any women and that the latter only features white models, thus suggesting that for white women, race becomes a stronger prediction for in-group identification than sex.

SIT should be explored in more depth in the context of several non-exclusive group memberships to better understand how the salience of these memberships varies. Race and sex represent a good starting point because they both are, at least most of the times, "visible identities" (Alcoff, 2006). In addition to its theoretical implications, this study also offers practical recommendations for universities to appeal to black students via their promotional material.

This study offers the first empirical findings on the use of black and white models in university advertising. Findings reveal that using black and white models in institutional recruitment images represents a win-win situation because they appeal to both black and white students. However, to increase image appeal to both black and white students, black models of both sexes should be more visible than white models. Indeed, the presence of white



models among models of other races would not alienate white students while a strong presence of black models would be more appealing to black students.

Institutions of higher education should be cautious when selecting images to include in their promotional materials and should also consider their actual student body composition, as well as that of the city and state in which they are located, prior to portraying minority students as outnumbering their white peers. While this depiction might send a welcoming message to prospective minority students, it also creates a false illusion of diversity. Institutions that use such images despite having a predominantly white student body might jeopardize the integrity of additional communication efforts with students and parents/guardians. This fabrication could also lead students to think that a particular institution is not seriously committed to diversity matters and/or does not view deceptive campus imagery as unethical.

Using racial minority models in recruitment materials to make minority students feel welcome at a particular university might represent ethical dilemmas if that university does not possess the resources to support minority students in the different aspects of their academic life. If students do decide to attend an institution based on their perceptions from promotional materials that they will fit in socially, the institution has an ethical responsibility to provide such an environment. It is essential that scholars study recruitment efforts in more depth to better understand the different variables at play when students decide which institution to attend across a variety of dimensions, such as race, ethnicity, gender, socioeconomic class, sexual orientation, religion, etc.

Future Research

Further research should be conducted to enhance our understanding of students' image appeal of higher education promotional materials and to strengthen our understanding of SIT. Researchers could use recruitment images displaying more than just two models to see if image appeal increases as the number of models from the participants' race and sex increases. Because institutions use a variety of promotional materials in their integrated marketing communication efforts, future studies should test multiple static and dynamic media messages. Furthermore, studies should be conducted for various campus departments to enhance external validity.



Determining how minority students react to images depicting models from another minority group would provide an additional avenue of fruitful research. For example, how does the use of black models in university promotional images influence Latina/o, Asian, or Native-American students' image appeal? Research on the topic is lacking because most researchers use participants from the same ethnic background as the models depicted in the media messages they test, as we did, or rely upon convenience samples, which often translate into a predominantly white sample. Future research should also examine the use of multiracial or racially ambiguous models in promotional material. Indeed, in their constant efforts to appeal to a large audience, advertisers have increased their use of multicultural models (Johnson & Grier, 2011).

Comparing results between a predominantly white university and a minority-serving institution, such as Historically Black Colleges and Universities, Hispanic Service Institutions, or universities with a true racially diverse student body would offer additional insight into this topic. Furthermore, as many colleges and universities examine their diversity policies pertaining to lesbian, gay, bisexual, and transgender (LGBT) identities and others explicitly ask applicants for their sexual orientation in recruitment surveys, research could explore LGBT and heterosexual students' perceptions of university promotional images featuring identifiably LGBT students (CNN, 2010; Webber, 2011). We acknowledge the differences present between and within each group and are cognizant of the fact that each group has faced different challenges pertaining to U.S. institutions of higher education. As a result, it is likely that each minority group will react differently toward being featured within and targeted with institutional recruitment materials.



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