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THE EFFECT OF RACE, GENDER, AND BIAS ON LIKING OF COMMERCIALS WITH PERCEIVED STEREOTYPES

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ABSTRACT

Previous research indicates that although individuals may not differ in the ability to identify cultural stereotypes, they do differ in their reactions. Additionally research on television documents the pervasiveness of both gender and racial stereotypes, but few researchers have examined the effect of stereotypical portrayals on the viewer's reaction. We designed the present research to examine the effect of stereotypical portrayals on viewers' reactions to commercials. Findings indicate that viewers did not differ in their overall perception of whether stereotypes were present, but did differ in how stereotypical portrayals affected their liking of a commercial.

INTRODUCTION

Research has established the pervasiveness of stereotypical representations on television by gender (Coltrane & Messineo, 2000; Hentges, Bartsch, & Meier, 2007; Signorielli & Kahlenberg, 2001) and by race (Coltrane & Messineo, 2000; Harwood & Anderson, 2002; Signorielli & Kahlenberg, 2001). However, very few researchers have examined the influence of perceived stereotypical portrayals on the viewer's reaction to the television program or commercial. Additionally, although stereotypes are clearly presented in television, it is not clear whether viewers identify these stereotypical portrayals as such. We designed the present study to examine whether perception of a cultural stereotype, individual bias, and personal characteristics, e.g. race or sex, affected their reactions to television commercials.

Awareness of Cultural Stereotypes

Cultural stereotypes are widely held generalizations about members of social groups (Ashmore, Del Boca & Wohlers, 1986). While, by definition, the majority of people within a society have knowledge of cultural stereotypes, there is also a great deal of individual variation in the extent to which individuals endorse the stereotypes (Devine, 1989; Martin, 1987). Knowledge of a cultural stereotype does not necessarily reflect a belief in the stereotype (Devine, 1989). That is, a person can be aware of, but not endorse a cultural stereotype (Abrams, 2003; Crocker & Major, 2003).

An individual's level of personal bias or prejudice does not appear to affect awareness of cultural stereotypes; those with little bias have as much knowledge of stereotypes as those with high levels of bias (Augoustinos, Ahrens & Innes, 1994; Devine, 1989). However, level of bias does affect sensitivity to discrimination, such that those with lower levels of bias are more likely to detect discrimination (Kawakami, Spears & Dovidio, 2002; Stangor, Sechrist & Swim, 1999; Swim, Mallet, Russo-Devosa, & Stangor, 2005). Additionally, belonging to the stigmatized group may affect awareness of potential discrimination pertaining to that group. For instance, in terms of sexist ideas, Swim and colleagues (2005) found that women more readily judged things as sexist compared to men. This relation seemed to come from the male participants' greater endorsement of sexist beliefs. Swim et al. (2005) argued that endorsed beliefs are less readily identified as sexist. Therefore, those with higher levels of bias (sexism) are less likely to label particular behaviors and attitudes as discriminatory.

Individual Differences in Reacting to Stereotypes

Most research on the pervasiveness of cultural stereotypes in the media is based on the assumption that exposure to these images affects perception of social reality (Mastro & Tropp, 2004). Numerous theories, including social-cognitive learning theory (Bussey & Bandura, 1999) and cultivation theory (Gerbner, 1998) suggest that stereotypes are disseminated at least partially through the media. Although there is evidence supporting this idea (Busselle & Crandall, 2002; Gerbner, Gross, Signorielli, & Morgan, 1980; Signorielli & Lears, 1992), it is less clear how these images affect individuals when the stereotype is clearly identifiable by the individual. Individuals may differ in their sensitivity in identifying cultural stereotypical portrayals (Donlon,

Ashman, & Levy, 2005) and in their reactions to such portrayals. Mastro and Tropp (2004) examined the effect of interracial contact, racial attitudes, and racial stereotypical portrayals on individuals' reaction to black characters. They found that the participants' reactions to the stereotypical portrayal of a black female in a situation comedy were mediated by their level of racial bias. Those individuals with high level of bias rated the black characters lower in competence and positive personal characteristics, irrespective of their personal level of interracial contact, than those individuals low in prejudice. These effects did not hold when the presented image was non-stereotypical. Thus, various factors may drive individuals' reactions to stereotypical portrayals. However, Mastro and Tropp (2004) themselves determined whether the image was stereotypical or non-stereotypical and failed to directly assess the participant's assessment of the stereotypicality of the portrayal. To fully understand the effect of stereotypical portrayals on viewers' reactions, whether the viewer personally detects a stereotype is probably relevant. Devine's (1989) model separating personal belief from cultural stereotypes suggests that while stereotypes are equally accessible to individuals both high in prejudice and those low in prejudice, the two differ in their reactions. Thus, individuals who are low in prejudice would be expected to react more negatively to stereotypical presentations if they perceive them as such.

Present Studies

We designed the present studies to examine a number of issues. First, do participant gender and race would affect the number of commercials identified with stereotypes. Individuals belonging to stigmatized groups (minorities or women) would detect more stereotypes than individuals not in stigmatized groups (white males). We also predicted that individuals would react differently to the stereotypical portrayals based on their own personal bias. Thus we separated detection of stereotypes from reactions to the stereotypical depictions.

For Study 1 we specifically predicted:

- 1) Racial minorities would detect more racial stereotypes in commercials than white participants.
- 2) In general, participants would like commercials with racial stereotypes less than commercials without racial stereotypes.
- 3) Individuals low in racial bias would react more negatively to commercials with stereotypes than individuals high in bias.
- 4) Racial minorities would react more negatively to racial stereotypes in commercials than white participants.

METHOD STUDY 1

Participants

Fifty-seven upper-division undergraduate students (48 females, mean age = 29.58 years) participated in the first study examining participants' perceptions of racial stereotypes in preselected television commercials. Forty-two participants classified themselves as White/Non-Hispanic, and 15 classified themselves as minorities (10 African-American, 5 Hispanic). In return for their participation, students received credit towards a course requirement.

Target Stimuli

Commercials were videotaped from the three major network television stations (ABC, NBC, CBS) during prime-time hours over a period of several days. A team of four researchers then selected a sample of the commercials that aired. In order to be included in the study, the commercial had to include real human characters and at least one of the commercial characters had to be non-white. We selected a total of 15 different commercials

Measurement Scales

After viewing each commercial, participants indicated whether there were any racial stereotypes present (yes/no response set) and how much they liked the commercial on a 5-point scale (1 = strongly dislike; 5 = strongly like).

We administered the Symbolic Racism 2000 Scale (Henry & Sears, 2002) to measure racial attitudes. The scale consists of eight items measured on a 5-point scale (1=strongly agree; 5 = strongly disagree). The measure examines perception of blacks with items such as "Over the past few years, blacks have gotten less than they deserve." We reverse coded some items, and then summed all items, so that higher scores indicate more racist attitudes (Cronbach's alpha = .78).

Procedures

Order was counterbalanced so that half of the students completed the demographic and attitude scales first and then they viewed and rated the commercials. The order was reversed for the other half of the participants so that they viewed and rated the commercials first and then completed the packet of demographic and attitude scales. Statistical analysis revealed that the order of presentation was not related to participants' ratings of commercials and was dropped from further analyses. Participants watched each commercial and then were given 60 seconds to rate each commercial. After each study session was completed, participants were debriefed and thanked for their participation.

RESULTS STUDY 1

We performed a two-sample independent t-test with race as the independent variable, and number of commercials identified as stereotypical as the dependent variable. There was no difference between the number of commercials that were identified as having a racial stereotype between minorities (M = 3.87, SD = 2.97) and whites (M = 5.05, SD = 2.89), t(55) = 1.35, ns.

For each participant, we separated the commercials they said had racial stereotypes (average frequency of commercials with stereotypes, M = 4.74, SD = 2.93) from those they felt had no racial stereotypes (commercials without stereotypes, M = 10.26, SD = 2.93).

The means and standard deviations for liking scores for each commercial are presented in the Appendix. Across all commercials the mean ratings were in the neutral range (M = 3.37). We then examined the effect of racial bias and racial minority status on ratings of commercials participants felt contained racial stereotypes. To do this we first calculated the average ratings on

liking for only those commercials the participant indicated contained racial stereotypes. We then repeated this procedure for those commercials the participants said contained no racial stereotypes (see Table 1).

Table 1. Average Ratings and Standard Deviations of Liking in Commercials With and Without Racial Stereotypes by Participant Race and Racial Bias.

	Liking of Commercials with Racial Stereotypes	Liking of Commercials without Racial Stereotypes	
Low Racial Bias	2.87 (0.83)	3.59 (0.50)	
High Racial Bias	3.21 (0.48)	3.41 (0.44)	
Minority	2.75 (0.88)	3.72 (0.39)	
White	3.15 (0.58)	3.39 (0.48)	

Then, we performed a 2 x 2 mixed model ANOVA, with liking scores for commercials with and without stereotypes as the repeated factor and a median split of racial bias as the between-participants factor. Overall, participants liked commercials with racial stereotypes less than those without, F(1, 52) = 18.34, p < .001. However, there was an interaction of liking with racial bias, F(1, 52) = 6.04, p = .02. An examination of the mean liking scores for commercials with and without racial stereotypes reveals that participants with low racial bias liked commercials with racial stereotypes less than participants with high bias did, but they liked commercials without stereotypes more.

Finally, we performed a separate 2 x 2 mixed model ANOVA, with liking scores for commercials with and without stereotypes as the repeated factor and race as a between-participants factor. Race interacted with liking scores, F(1, 53) = 10.08, p < .01. Following a similar pattern to racial bias, minority participants disliked commercials with racial stereotypes, compared to those without racial stereotypes, more than white participants (see Table 1). An examination of the means reveals that minority participants liked commercials with racial stereotypes less than white participants, but liked those without stereotypes more.

INTRODUCTION STUDY 2

Target of Stereotype

Many of the theories and research on prejudice/bias and cultural stereotypes imply equal applicability to different socially stigmatized groups (Devine, 1989; Monteith, Sherman & Devine, 1998; Sherman, Stroessner, Conrey & Azam, 2005). Thus the mechanism for bias would remain the same for stereotyping different groups such as African-Americans, women, homosexuals, etc. However, socially not all stereotypes are created equal (Czopp & Monteith, 2003). Cowan and Hodge (1996) found that college students rated hate speech directed at ethnic groups more offensive than hate speech targeting woman or homosexuals. Likewise Czopp and Monteith (2003) found that individuals experience more guilt when confronted with racial bias than when confronted with gender bias.

Because the effect of stereotypical portrayals might differ depending on the group depicted in a stereotypical manner, e.g. African-Americans versus females, we conducted a second study examining the effect of individual characteristics on the detection and reaction to gender stereotypes. The format of the second study was identical to the first with a few exceptions.

For Study 2 we predicted:

- 1) Females would detect more gender stereotypes in commercials than male participants.
- 2) In general, participants would like commercials with gender stereotypes less than commercials without gender stereotypes.
- 3) Individuals low in gender bias would react more negatively to commercials with stereotypes than individuals high in bias.
- 4) Women would react more negatively to gender stereotypes in commercials than male participants.

METHOD STUDY 2

Participants

A sample of 86 upper-division undergraduate students (73 females; mean age = 30.87 years) participated in the second study examining perceptions of gender in a series of pre-selected television commercials. The sample was racially diverse, with 58 White/Non-Hispanics, 11 African-Americans, 13 Hispanics, 2 Asian-Americans, and 2 participants who classified their race/ethnicity as "other." In return for their participation in the study, students received credit towards a course requirement.

Target Stimuli

Commercials were videotaped from the three major network television stations (ABC, NBC, CBS) during prime-time hours over a period of several days. A team of four researchers then selected a sample of the commercials to include in the study that aired. Commercials were selected for the second study if they included real human male and female characters. A total of 17 different commercials were selected.

Measurement Scales

After viewing each commercial, we asked participants whether there were any gender stereotypes present (yes/no response set) and how much they liked the commercial on a 5-point scale (1 = strongly dislike; 5 = strongly like).

Sexist attitudes were measured using the Modern Sexism Scale (Swim, Aikin, Hall, & Hunter, 1995). The scale included eight items that measured denial of continuing sexism, antagonism towards demands made by women, and resentment of special favors granted to women, e.g., "Discrimination against women is no longer a problem in the United States." The items are measured on a 5-point scale ranging from 1 (strongly agree) to 5 (strongly disagree). We reverse

coded some items, and then summed all items, so that higher scores indicate more sexist attitudes (Cronbach's alpha = .72).

Procedures

Order was counterbalanced so that half of the students completed the demographic and attitude scales first and then they viewed and rated the commercials. The order was reversed for the other half of the participants so that they viewed and rated the commercials first and then completed the packet of demographic and attitude scales. Statistical analysis revealed that the order of presentation was not related to participants' ratings of commercials and was dropped from further analyses. Participants watched each commercial and then were given 60 seconds to complete a one-page questionnaire regarding their perceptions of the commercials. After each study session was completed, participants were debriefed and thanked for their participation.

RESULTS STUDY 2

We performed a two-sample independent t-test with sex as the independent variable and number of commercials identified as stereotypical as the dependent variable. Females detected marginally significantly more gender stereotypes in the commercials (M = 8.62, SD = 2.96) than males did (M = 6.85, SD = 3.67), t(84) = -1.92, p = .06

We separated the commercials that participants said had gender stereotypes (M = 8.35, SD = 3.12) from those they felt had no gender stereotypes (M = 8.65, SD = 3.12). The participants who did not rate any commercials with gender stereotypes (n = 2) were excluded from analyses involving liking scores. The means and standard deviations for liking scores for each commercial are presented in the Appendix. Across all commercials the mean ratings were in the neutral range (overall M = 3.28). We compared the participants' ratings of liking for the commercials they perceived as containing gender stereotypes with those they did not (see Table 2).

Table 2. Average Ratings and Standard Deviations of Liking in Commercials With and Without Gender Stereotypes by Sex.

	Liking of Commercials	Liking of Commercials without Gender Stereotypes	
	with Gender Stereotypes		
Low Gender Bias	2.89 (0.55)	3.46 (0.66)	
High Gender Bias	3.10 (0.51)	3.43 (0.56)	
Females	2.92 (0.50)	3.46 (0.63)	
Males	3.50 (0.53)	3.31 (0.40)	

Next, we performed a 2 x 2 mixed model ANOVA, with liking scores for commercials with and without stereotypes as the repeated factor and a median split of gender bias as the between-participants factor. Overall, participants liked commercials with gender stereotypes less than those without, F(1, 82) = 38.04, p < .001. Although the pattern of results was similar to the previous study there was not a significant interaction between gender bias and liking of commercials, F(1, 82) = 2.66, p = .11.

Finally, we performed a 2 x 2 mixed model ANOVA, with liking scores for commercials with and without gender stereotypes as the repeated factor and sex as a between-participants factor. Similar to the study on racial bias there was a significant sex x liking interaction, F(1, 82) = 13.90, p < .001, such that female participants disliked commercials with gender stereotypes compared to those without gender stereotypes more than male participants, who had higher liking scores for commercials with gender stereotypes.

DISCUSSION

The present studies provided support for the contention that members of stigmatized groups react more negatively to stereotypical portrayals, and partial support for the contention that lower levels of bias are associated with more negative reactions to stereotypical portrayals, but only for racial stereotypes. We do note that the differences in liking between commercials which were perceived to have stereotypes and those that did not were noticeable and significant, but not large (i.e., a bit less than half a point). On average, participants were relatively neutral about commercials, both with and without stereotypes. Our measure of liking may not have been sensitive enough to detect subtle differences in liking. Despite this we did have some significant findings. When people perceived a stereotype they did not automatically dislike the commercial; however, it does appear that perceiving a stereotype was a factor in their liking of the commercial.

Similar to previous research (e.g. Mastro & Tropp, 2004), participants' levels of racial bias were associated with negative reactions to commercials with perceived racial stereotypes. Those with lower scores on the Symbolic Racism 2000 Scale liked commercials with racial stereotypes significantly less than those without racial stereotypes. However, gender bias scores did not relate to liking of commercials with and without gender stereotypes. A possible explanation for the differential effect of gender and racial bias on reactions to commercials with stereotypical portrayals may lie with the differing cultural reactions to sexism and racism. Since individuals react more negatively to racial bias than to gender bias (e.g., Cowen & Hodge, 1996; Czopp & Monteith, 2003), it is possible that only those high in racial bias do not differentially react to commercials with and without racial stereotypes. Thus, only a segment of the population (those higher in racial bias) will not react negatively to commercials with racial stereotyping. In contrast, gender stereotypes are generally not perceived as problematic, even by individuals low in gender bias.

Racial bias is generally considered more socially unacceptable in the United States. Racial stereotypes are closely associated with racial bias to the extent that expression of a racial stereotype is akin to the expression of prejudice. Gender stereotypes and sexism are not so closely aligned. Swim, Mallet, Russo-Devosa and Stangor (2005) asked college students to judge whether various behaviors or statements were sexist. The participants generally labeled traditional gender roles and hostile sexist beliefs as sexist. However, they did not as readily identify more benevolent attitudes and behaviors or unwanted sexual advances as such. The participants in Swim et al.'s (2005) study may not have viewed these as being problematic. This explanation fits in with Czopp and Monteith's (2003) finding that individuals experience more guilt when confronted with racial bias than gender bias. Racial stereotypes may be viewed as

more inherently problematic than gender stereotypes and thus viewers' reactions to them are more negative.

Members of a stigmatized group are likely to be more sensitive to the potential negative effect of stereotypes (Swim, Mallett, Russo-Devosa & Stangor, 2005), and therefore would likely have more negative reactions to stereotypical portrayals. In the first study, racial minority participants, compared to white participants, reacted more negatively to perceived racial stereotypes in the commercials. Similarly, female participants reacted more negatively to perceived gender stereotypes in the commercials than the male participants. Although, racial minority participants were not more likely to detect racial stereotypes in the commercials, there was some evidence in the second study that females might be more sensitive to detecting gender stereotypes. The reason for this is not clear, although it does indicate that the relationship between stereotyping, bias and individual characteristics is not the same across all stigmatized groups.

Future Directions

Future research is needed to more fully explore the interaction between demographic characteristics (race and gender) and biased beliefs. How racial and gender bias affect individuals' reactions to stereotypical portrayals appears to depend on whether they belong to the stigmatized group or not. However, the current studies could not examine this relationship in more detail as we had too few males and minorities. Since the number of racial minority participants was low we did not analyze different racial groups separately. It is quite possible that the reactions to racial stereotypes could vary depending on whether one belongs to the racial group being presented stereotypically. Future research with greater racial representation is needed to more fully explore the effect of racially stereotyped presentations on different racial minorities. Additionally, future research could be constructed to reduce the effect of social desirability. In the present research the participants most likely deduced that we were examining racial and gender bias. Future researchers could also try to measure whether participants felt social pressures to appear non-biased.

An additional direction for future research would be to directly examine any mediating role of emotional reactions on the relationship between viewing a stereotypical portrayal and negative reactions. We did not assess emotional reactions in the current studies, but it would be useful to directly test whether guilt (or other negative emotional reactions) in fact occurs when viewing a commercial with racial or gender stereotypes. The present line of research highlights some of the important issues in research on bias, most importantly that racial and gender bias did not affect individuals in the same way.

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APPENDIX A: MEAN LIKING SCORES AND STANDARD DEVIATIONS FOR COMMERCIALS IN STUDY 1.

Commercial	Mean	Standard Deviation	
1	3.16	.80	
2	3.21	.98	
3	3.16	.75	
4	2.86	.69	
5	2.81	1.03	
6	3.60	.84	
7	3.20	1.02	
8	3.27	1.31	
9	3.21	1.03	
10	3.53	.96	
11	3.53	1.04	
12	3.49	.83	
13	3.95	1.32	
14	3.37	1.21	
15	4.19	.93	

APPENDIX B: CORRELATION MATRIX FOR STUDY 1.

Variables	Race	Number of Commercials Identified with Stereotypes	Symbolic Racism	Average Liking of Commercials with Stereotypes	Average Liking of Commercials without Stereotypes
Race					
Commercials	18		1		-
Symbolic Racism	37**	.09	-		1
Liking with Stereotypes	26*	.01	.22		-1
Liking without Stereotypes	.31*	.02	19	.06	

Note: n=57, * p<.05, ** p<.01

APPENDIX C: QUESTIONS USED IN STUDY 1.

Your Age: Your gender: Male Female

Your race/ethnicity: African-American Asian-American Hispanic White-Non-Hispanic

Were there any racial stereotypes present? Yes No

Please indicate how much you liked this particular commercial on the following scale:

- 1 = I strongly disliked this commercial
- 2 = I slightly disliked this commercial
- 3 = I am neutral in my feelings for this commercial
- 4 = I slightly like this commercial
- 5 = I strongly like this commercial

APPENDIX D: MEAN LIKING SCORES AND STANDARD DEVIATIONS FOR **COMMERCIALS IN STUDY 2.**

Commercial	Mean	Standard Deviation		
1	3.24	.75		
2	3.41	.86		
3	2.81	.97		
4	3.28	1.08		
5	3.45	1.06		
6	3.87	1.15		
7	3.45	1.06		
8	4.05	.84		
9	2.54	1.02		
10	3.31	.85		
11	3.19	.98		
12	3.73	1.21		
13	4.04	.97		
14	2.92	.77		
15	2.61	1.21		
16	2.93	.72		
17	2.89	1.41		

APPENDIX E: CORRELATION MATRIX FOR STUDY 2.

Variables	Sex	Number of Commercials Identified with Stereotypes	Modern Sexism	Average Liking of Commercials with Stereotypes	Average Liking of Commercials without Stereotypes
Sex					
Commercials	21				
Modern Sexism	.03	.08	1		
Liking with Stereotypes	38**	08	.27*		
Liking without Stereotypes	15	01	.03	.33**	

Note: n=85, * p<.05, ** p<.01

APPENDIX F: QUESTIONS USED IN STUDY 2.

Your Age: _____

Your gender: Male Female

Your race/ethnicity: African-American Asian-American Hispanic White-Non-Hispanic

Were there any gender stereotypes present? Yes No

Please indicate how much you liked this particular commercial on the following scale:

- 1 = I strongly disliked this commercial
- 2 = I slightly disliked this commercial
- 3 = I am neutral in my feelings for this commercial
- 4 = I slightly like this commercial
- 5 = I strongly like this commercial

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