

Differences in Gender Perceptions across Race and Gender: A Web-based Survey

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Abstract

This study compared gender stereotypes people have of Asian Americans and African Americans to baseline stereotypes of Whites and also to the actual gender self-perceptions of these racial groups. Our hypotheses included higher masculinity perceptions of African Americans and higher femininity perceptions of Asian Americans. We used an online survey with a modified Bem Sex-Role Inventory (BSRI) to measure perceptions of masculinity and femininity. 182 Stanford students filled out this modified BSRI for both someone else and for themselves. Our hypotheses were partially supported by the collected data. We also found some unexpected significant results in that people rated themselves higher on both femininity and masculinity than they rated others. We discuss the implications of these results and how they apply to gender stereotypes.

Differences in Gender Perceptions Across Race: a Web Based Survey

Introduction

While many studies have been conducted on gender roles, few have examined the interaction of race and gender. Of these few studies, most have observed only African Americans and Whites. Therefore, it is important to examine the gender identities and perceptions of different cultures. Gender cannot be separated from race; each culture has its own definitions of gender and its own concepts of masculinity and femininity. In addition, perceptions of gender differ across cultures. Thus, further research is needed to gain a better understanding of culture-specific standards and stereotypes about men and women. Our study addressed this need by extending the examination of racial gender stereotypes to Asian Americans, in addition to African Americans and Whites. We felt that the perceptions of masculinity and femininity within these three groups would have the most observable differences, due to both culture and existing stereotypes. We predicted these differences because prevalent gender stereotypes exist, which are heavily influenced by race. For example, two stereotypes that seem to be pervasive in American culture are that Asian American women are ultra-feminine, and African American men are ultra-masculine.

Many scales have been invented to measure gender stereotypes and the degree to which people fit into their traditional gender roles. Among the most popular measures is the Bem Sex Role Inventory (BSRI) (1974, 1981), which considers gender as multi-dimensional, not linear. In addition to the traditional “masculine” and “feminine” categories, this scale includes the categories “androgynous” (high masculinity and

femininity scores) and “undifferentiated” (low masculinity and femininity scores).

Although such a scale may be largely based on dated stereotypes, research shows that it is currently among the most effective measures of existing gender stereotypes (Harris, 1994). Much of the research that has been conducted on racial gender stereotypes utilizes the BSRI.

Although studies regarding racial gender perceptions generally differ in their findings, certain stereotypes are nonetheless widespread. For instance, Ligutom-Kimura (1995) discusses the view that Asian American women are perceived as extremely feminine. The author suggests that this is a result of the highly traditional Asian culture, which values stringent sex roles and emphasizes female subservience. Asian American men also seem to be perceived as relatively feminine, although their culture emphasizes male dominance. According to Cheng (1999), this can be attributed to the relatively small physical size of Asian American males, because masculinity is often associated with size. Other cultural factors may also affect this perception. Kitayama, Markus, et al. (1997) for instance, note the collectivist nature of most Asian cultures, which value cooperation, quietness, and modesty over aggressiveness and independence. These collectivist traits are considered feminine by Western standards and by the Bem Scale, while the other traits are considered masculine. Thus, Western standard may deem “feminine” what to many Asian American men and women is only a social convention.

Additional studies investigate the gender stereotypes that exist for African American men and women. Intons-Peterson & Samuels (1978) investigated Black and White American women’s perceptions of Black and White American males using the BSRI. Their results showed that Black women rated Black men as significantly more

masculine than White men. White women, however, rated men of both races as less masculine than Black women perceived Black men to be. White women's masculinity rating for White men was also higher than Black women's rating of White men. Because the subject pool was split by race and gender, these results do not necessarily reflect the stereotypes held by a general population. Other studies show that both Black women and men are or are stereotyped as more androgynous than their White counterparts. Harris (1996) compared White versus Black self-ratings of androgyny using the BSRI. He found that Black men and women were equally likely to select masculine traits as self-descriptive, whereas White males selected them more than White females. Also, White participants had a greater tendency to select "gender appropriate" traits as self-descriptive than did Black participants. Cultural factors also play into the androgyny of this group. For instance, African American culture is based largely on the slave culture of early America, which had its roots in Africa. The gender system that developed there and which persists in modern African Americans culture is more egalitarian than its White counterpart. This may lead to an "androgynous" identity for both Black women and men (Harris, 1996).

Within the existing pool of race/gender research, many ideas about racial and gender stereotypes exist; however, studies on interracial gender stereotypes are rare. Since it seems apparent that gender stereotypes exist along racial lines, we believe it is important to examine the differences among perceptions of masculinity, femininity, and androgyny across racial groups. We hypothesize that racial stereotypes affect the perception of masculinity, femininity, and androgyny, as measured by the Bem Sex Role Inventory (BSRI). To test this hypothesis, a random sample of 182 Stanford

undergraduates completed an online survey. They were asked to rate a fictional new student on a modified BSRI. Participants' evaluations were based on a brief profile of the new student, including name, race, interests, and living preferences, with gender and race as between-subjects independent variables. Participants were then instructed to rate themselves on the BSRI. Scores were correlated, and the following results were predicted: (1) Asian American women and men will be perceived as more feminine than they perceive themselves to be. (2) African American women and men will be perceived as more masculine than they perceive themselves to be. (3) Asian American women and men will be perceived as more feminine than White and African American women and men. (4) African American women and men will be perceived as more masculine than White and Asian women and men. (5) Asian American women and men will be perceived as more polarized in their masculinity and femininity than African American and White women and men.

Method

Participants

A total of 182 Stanford students, 111 female, 66 male, and 5 unspecified, completed a survey, which measured their perceptions of gender roles across races, as well as their self-perceptions. Participants completed the questionnaire on a voluntary basis, and the online format allowed them to complete it from any internet-accessible computer. A proportion of the participants completed each condition (31 for Asian American female, 34 for Asian American male, 32 for African American female, 20 for African American male, 29 for White female, and 36 for White male). Of the 182

participants, 2 were American Indian/Alaska Native, 64 were Asian, Asian American or Pacific Islander, 13 were African American/Black, 62 were Caucasian/White, 19 were Hispanic/Latino, and 13 unspecified other. All participants who completed the questionnaire were included in the data.

Procedure

The survey was administered in an online format. Participants received an e-mail, which read:

Subject: Roommate Study

We are looking for people to help us out with a study relating to roommate compatibility. If you could take a moment and fill out the quick survey online at: (website was provided here). We appreciate your helping us out. Thanks!

The website began with a participant consent form that emphasized the anonymity of the participants and their responses.

Figure 1: conditions by race, sex, and name	Female	Male
Asian American	Michelle Lee	Michael Lee
African American	Michelle Williams	Michael Williams
White	Michelle Hill	Michael Hill

Six versions of one questionnaire were used in this experiment, differentiated only by the name and race of the “student” whose information was given. The six conditions, Asian American, African American, or White; female or male, are illustrated in figure 1. The website systematically alternated conditions, so participants were assigned to conditions randomly. The premise of a roommate pairing study was used to collect data on racial gender stereotypes, in the form of BSRI scores. The directions on the survey

told participants to imagine they were “working for Res Ed [the office of Residential Education], assigning incoming students to roommate pairs.” It went on to say that the participants were supposed read the profile submitted by an incoming student and use the information from it to rate the described student on given traits (a modified BSRI). On the next page, participants were asked to rate themselves on the same traits, purportedly in order to assess the effectiveness of this rating scale. Finally, a third page was added to collect information about the sex and race/ethnicity of the participants. These were presented in a multiple-choice style. The only free-response item on the survey was the last question: “What results do you believe we will find from the study?”

The profile of the “student” to be evaluated included name, race, and other demographics, and all information besides name and race was constant across all conditions. For example, the “student’s” age was 18 and prospective major was undeclared. Demographics of the described person were intentionally left as generic as possible, so as not to prime confounding stereotypes specific to any particular group in the demographic descriptions. For example, demographics included a description of the described student’s extracurricular activities in high school as two years of athletics, two years of music/arts, and three years of community service. A sample profile follows:

Name: Michelle Williams

Age: 18

Sex: female

Race/Ethnicity: African American

Religion: not specified

Hometown: San Jose, CA

Siblings: 1

Messiness: I can live with some messiness.

How social in room: I do not mind having people in my room.

Typical bedtime: 1am

Morning person: No

Perspective major: undeclared

Number of years of Athletics in high school: 2

Number of years of Music/Arts in high school: 2

Number of years of Community Service in high school: 3

A modified Bem Sex-Role Inventory was used to measure participants' perceptions of gender roles. Thirty-six of the sixty items from the original scale were used, twelve items each from measures of femininity and masculinity. Examples of femininity items were "affectionate" and "understanding." Items corresponding with masculinity included "forceful" and "ambitious." The other twelve items were neutral, non-sex-typed characteristics, like "conceited" and "moody." Ratings of the described profile were done using a seven-point Likert scale, with 1 representing "Low" and 7 representing "High." Figure 2 includes the items we used:

Figure 2: items used

Masculine	Feminine	Neutral
Defends own beliefs	Cheerful	Moody
Forceful	Affectionate	Friendly
Strong personality	Loyal	Unpredictable
Analytical	Sympathetic	Adaptable
Masculine	Understanding	Likable
Willing to take risks	Eager to soothe hurt feelings	Conceited
Self-sufficient	Compassionate	Reliable
Aggressive	Does not use harsh language	Inefficient
Individualistic	Gentle	Helpful
Ambitious	Feminine	Conventional
Dominant	Sensitive to the needs of others	Tactful
Independent	Shy	Happy

Results

Gender Stereotypes Compared to Self-Perceptions

The results did not support either the hypothesis that Asian Americans would be stereotyped as more feminine than the participants' self-perceptions or that African Americans would be stereotyped as more masculine than their self-perceptions. Rather, preliminary analysis of our data suggested that participants in all racial groups rated themselves higher on masculinity and femininity than they rated others. We conducted a paired sample t-test comparing the means of the total scores of masculine and feminine test items. We found highly significant results showing that participants rated themselves higher than others on both masculinity ($T(164) = -8.82, p < .001$) and femininity ($T(166) = -12.02, p < .001$). Table 1 shows these results.

Table 1- Gender Stereotypes Compared to Self-Perceptions

Paired differences in participants' ratings of others vs. self ratings

	N	Mean	SD	t-test	Sig.
Total masculine score	165	-0.7662	1.1155	-8.822	0.001
Total feminine score	167	-0.4216	0.6969	-7.864	0.001

Gender Stereotypes Based on Race

We conducted independent sample t-tests comparing participants ratings of each racial gender group to all other combinations of race and gender. Our hypotheses were partially supported. The results confirmed our prediction that participants would rate Asian American women as more feminine than the combination of all other races and genders, yielding a significant difference when equal variances were not assumed ($T(45) = 2.00, p = .052$). Our prediction that African American men would be rated as more

masculine than the combination of all other groups was also supported, yielding a nearly significant difference when equal variances were not assumed ($T(29) = 1.96, p = .059$). Our predictions for Asian American men and African American women, however, were not supported, as no significant differences were found. Asian American men were not rated as relatively more feminine ($T(39) = -.73, p = .468$), while African American women were not rated as relatively more masculine ($T(36) = .11, p = .915$). Tables 2, 3, and 4 show these results.

Table 2 - Gender Stereotypes Based on Race

	Perceived Masculinity Scores		
	N	Mean	SD
Asian American Males	30	3.96	1.03
Non-Asian American Males	136	4.00	0.77
Asian American Females	29	3.90	0.69
Non-Asian American Females	137	4.01	0.85
African American Males	20	4.26	0.62
Non-African American Males	146	3.96	0.84
African American Females	29	4.01	1.01
Non-African American Females	137	3.99	0.78

	Perceived Femininity Scores		
	N	Mean	SD
Asian American Males	31	4.02	0.93
Non-Asian American Males	139	4.16	0.76
Asian American Females	30	4.38	0.72
Non-Asian American Females	140	4.08	0.80
African American Males	19	4.10	0.56
Non-African American Males	151	4.14	0.82
African American Females	30	3.98	0.90
Non-African American Females	140	4.16	0.76

Table 3 – MASCULINITY SCORES

	t-test	df	Sig. (2-tailed)
Asian American males (w equal variances assumed)	-0.262	164	0.794
(w/o equal variances assumed)	-0.219	37	0.828
Asian American females			

(w equal variances assumed)	-0.66	164	0.51
(w/o equal variances assumed)	-0.756	48	0.454
African American males			
(w equal variances assumed)	1.564	164	0.12
(w/o equal variances assumed)	1.963	29	0.059
African American females			
(w equal variances assumed)	0.126	164	0.9
(w/o equal variances assumed)	0.107	36	0.915

Table 4 - FEMININITY SCORES

	t-test	df	Sig. (2-tailed)
Asian American males			
(w equal variances assumed)	-0.834	168	0.405
(w/o equal variances assumed)	-0.733	40	0.468
Asian American females			
(w equal variances assumed)	1.874	168	0.063
(w/o equal variances assumed)	1.997	45	0.052
African American males			
(w equal variances assumed)	-0.178	168	0.859
(w/o equal variances assumed)	-0.237	29	0.814
African American females			
(w equal variances assumed)	-1.131	168	0.259
(w/o equal variances assumed)	-1.014	38	0.317

Stereotypes of Gender Polarization Based on Race

Once again, our hypotheses were partially supported. There were unexpectedly no statistically significant differences between genders in masculinity scores. Contrary to our predictions, perceptions of Whites showed the greatest degree of gender differences on femininity scores, followed by Asian Americans. However, as expected, African Americans showed the least degree of gender polarization. We conducted an independent samples t-test on all racial gender groups. White females were significantly rated as more feminine than White males when equal variances were not assumed ($T(51) = -2.36, p = .022$). Asian Americans showed a statistically less significant difference in

the degree of gender polarization ($T(56) = -1.65, p = .105$) while there was no significant difference for African Americans ($T(45) = .56, p = .577$). Table 5 shows these results.

TABLE 5 - Stereotypes of Gender Polarization Based on Race

DIFFERENCE IN FEMININITY SCORES

	t-test	df	Sig. (2-tailed)
White			
(w equal variances assumed)	-2.397	58	0.02
(w/o equal variances assumed)	-2.363	51	0.022
Asian American			
(w equal variances assumed)	-1.642	59	0.106
(w/o equal variances assumed)	-1.649	56	0.105
African American			
(w equal variances assumed)	0.507	47	0.614
(w/o equal variances assumed)	0.562	47	0.577

Discussion

This study was designed to examine relationships between stereotypes and self-perceptions of gender based on race. It was predicted that Asian American men and women would be perceived as more feminine than their self-perceptions indicate, in

contrast to African American men and women who would be perceived as more masculine than their self-perceptions. Furthermore, it was hypothesized that Asian American men and women as a group would be stereotyped as more feminine than all other groups (African American and White men and women), and African men and women would be stereotyped as more masculine than all other groups. Finally, it was predicted that stereotypes of Asian American men and women would be the most gender polarized, while African American men and women would be the least gender polarized. Moreover, this study sought to explore the utility of a web-based survey, and what effects this method of data collection would have on the findings. In general, the results only partially supported the hypotheses.

The hypothesis that gender stereotypes of Asian Americans and African Americans would be more extreme than their self ratings was strongly refuted by the data. Instead, all respondents rated themselves much higher on all dimensions on the BSRI than they rated the hypothetical roommate. As all of the gendered words on the survey were positively valenced, these findings can be interpreted as the result of a self-enhancing bias. It is a well established finding in research on the self in personality and social psychology that western individuals have a tendency to interpret information and respond behaviorally in ways that promote the self over group norms (Blaine & Crocker 1993, Hein & Lehman, 1995).

The hypotheses that Asian Americans would be perceived as more feminine than the other groups received mixed support from the data. Asian American women were rated higher on femininity compared to the general population. This is consistent with Ligutom-Kimura's article (1995) emphasizing high femininity in Asian women as a

result of female subservience in Asian culture. However, it may also be that the perceived femininity in Asian women is magnified by the general cultural emphasis on quietness, cooperation, modesty, and interdependence (Markus et al, *in press*). In looking at perceptions of Asian American men, however, a significant difference in femininity from the general population was not shown. This seems counterintuitive to Western stereotypes (Cheng 1999). The supposed racial bias may have been mitigated by traditional Asian cultural emphasis on male dominance. Also, the results may be skewed by the sample demographics; that is, the high proportion of Asian respondents may have stereotyped their own group based on a non-Western, insider's perspective. Finally, it could be that stereotypes of Asian men are different from stereotypes of Asian *American* men.

Similarly, the hypothesis that African Americans would be seen as more masculine than other groups was also only partially supported. African American men were rated as highly masculine relative to the general population. This finding is consistent with Intons-Peterson & Samuels (1978) previous research on gender stereotyping of African American males. This cultural bias may be linked to body size, influencing BSRI items such as athletic, competitive, dominant, and forceful. Highly sex-typed sports such as football are dominated by African American athletes. Violence portrayed in the media may have had an effect on some respondents, as African American males have sometimes been negatively stereotyped as aggressive, violent gang members (Hunter & Davis, 1992; Loring & Powell, 1998). These perceived differences in masculinity seen for African American men did not hold for their female counterparts, as African American women were rated equally masculine compared to the general

population. It may be that the body size masculinity effect seen in African American males does not extend to African American females. This effect may have its roots in the differential portrayal of African American men and women in the media, as women's sports are rarely televised, and African American women are often excluded from media coverage.

Lastly, the hypothesis that the greatest polarization of gender perceptions would be seen for Asian Americans followed by Whites and African Americans also received weak support. No significant differences in perceptions of masculinity were found between men and women in all three racial categories, although there was a non-significant trend of greater masculinity in males. Significant difference between men and women were found on ratings of femininity, but in patterns than were initially hypothesized. Stereotypes of White men and women were significantly different on femininity scores, while Asian American results showed a strong trend toward difference, and ratings of African Americans showed no significant gender polarization. The relatively large discrepancy between White gender ratings results from somewhat high femininity scores in White females in combination with somewhat low femininity scores in White males. The increased femininity in White women may be seen as normative, while among men, the decrease may be the result of cultural pressures against feminine attributes in white males. The trend towards differentiation on femininity in Asian Americans may also be seen as a normative effect, but mitigated by the aforementioned cultural values of such as interdependence and modesty. The perceived similarities between African American men and women on both femininity and masculinity are entirely consistent with previous research. African American gender systems are rooted

in African tribal culture, which is relatively egalitarian (Harris, 1996). Subsequently, African Americans highly endorse values of collectivism and do not endorse individualism (Osyerman et al, 1995).

All of the results discussed so far may be explained in alternate terms due to the unique materials and procedure of the study, such as the web based design, the recruitment of participants, the effectiveness of the deception, and the ambiguous nature of the profile used. It was predicted that the online survey would provide both participant anonymity and relative administrative anonymity, removing some of the inhibitions and social constraints that normally plague self-report studies. Furthermore, web based surveys offer considerable administrative benefits, such as low cost distribution, easy recruitment, and facilitated data entry. If web-based surveys can show good reliability and validity, they may become incorporated as a standard psychological research tool.

To recruit for this type of study, emails were sent out to dorm lists on the college campus. This may create some self selected sampling biases in terms of who responds. In this study, the disproportionately large number of Asian American students who responded most likely skewed the validity of our stereotypes. The study became slanted with Asian Americans rated relatively more as an in-group, and as such the data may reflect an Asian American viewpoint relatively more than the views of the Stanford population as a whole. In addition, participants may have been more likely to rate people of another ethnicity and sex as more neutral than they would have rated people of their own. Since people are more familiar with their own ethnicity and sex, participants may have been more likely to attribute more extreme feminine or masculine characteristics when rating people like themselves.

A second response bias inherent in web based surveys is the ease of discontinuing the study. Participants in this study who were given an African American male to rate discontinued the study more often than participants who were asked to rate any other race-gender combination. Although this effect may be due to chance, this response bias may have also influenced the results. This raises the question of how salient the race and gender of the hypothetical roommate were to the participant. That is, did the participants see through the deception? Fortunately, in the free response question given at the end of the survey, the vast majority of the participants showed little knowledge of the true aim of the study. A typical response was, "I guess you might find out some things about why some people are better roommates than others--which personality traits help them get along with their roommate." A few respondents caught on to one of the two independent variables (race or gender), but none caught on to both. However, participants may still have thought this was a racial profiling study. Some may have been sensitive to this and not been honest in their ratings for fear of appearing racist.

A final consideration in interpreting the results of this study is the highly ambiguous nature of the profile the participants were given to rate. The aim of the ambiguity was to eliminate any priming of confounding stereotypes. However, the ambiguity may have also contributed to the relative neutral ratings given to the hypothetical roommate in comparison to self-ratings, making achieving statistical significance less likely.

In general then, mixed support was provided for our hypotheses. However, none of the findings strayed dramatically from previous research. The results also underscore the importance of considering the strong effect that methodology and sampling may have

on stereotype self-reports. The web based design offers a promise new method of research, and if nothing else these results suggest that the relatively unexplored relationship between race and gender stereotypes is a significant area for further study.

References

- Blaine, B., & Crocker, J. (1993). Self-esteem and self-serving biases in reactions to positive and negative events: An integrative review. In R. F. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard*. (pp. 55-85). New York: Plenum Press.
- Cheng, C. (1999). Marginalized masculinity and hegemonic masculinity: an introduction. *Journal of Men's Studies* 7, 3, 34-41
- Harris, A. (1994). Ethnicity as a determinant of sex role identity: a replication of item selection for the Bem Sex Role Inventory. *Sex Roles* 31, 3/4, 241-273
- Harris, A. (1996). African American and Anglo-American Gender Identities: An Empirical Study. *Journal of Black Psychology*, 22, 2, 182-194
- Hein S., J., & Lehman, D. R. (1995). Cultural variation in unrealistic optimism: Does the west feel more invulnerable than the east? *Journal of Personality and Social Psychology* 69, 4, 595-607
- Hunter, A., & Davis, J. (1992). Constructing gender: An exploration of Afro-American men's conceptualizations of manhood. *Gender and Society* 6, 464-479
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. Individual and collective processes in the construction of the self: self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology* 72, 6, 1245-1268.
- Ligutom-Kimura, D. (1995). The invisible women. *The Journal of Physical Education, Recreation, & Dance* 66, 7, 34-41.

- Loring, M., & Powell, B. (1988). Gender, race, and DSM-III: A study of the objectivity of psychiatric diagnostic behavior. *Journal of Health and Social Behavior* 29, 1-22
- Markus, H., Kitayama, S., & Mullally, P. R. (in press). Selfways: diversity in modes of cultural participation. In U. Neisser, & D. Jopling (Eds.), *The conceptual self in context*.
- Osyerman, D., Grant, L., and Ager, J. (1995). A socially contextualized model of African American identity: Possible selves and school persistence. *Journal of Personality and Social Psychology* 69 (6), 1216-1232