Racial Stereotypes and Interracial Attraction: Phenotypic Prototypicality and Perceived Attractiveness of Asians

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What does it take to find a member of a different race attractive? In this research, we suggest that for Whites, attraction to Asians may be based, in part, on stereotypes and variations in Asians’ racial appearance. Study 1 reveals that Asians are stereotyped as being more feminine and less masculine than other racial groups—characteristics considered appealing for women but not for men to possess. Study 2 examines how variation in racial appearance, phenotypic prototypicality (PP), shapes the degree to which Asians are gender stereotyped and how PP relates to perceptions of attractiveness. Higher PP Asian men are perceived as being less masculine and less physically attractive than lower PP Asian men. These findings inform theory on how within-group variation in racial appearance affects stereotyping and other social outcomes.

*Keywords:* Asian Americans, phenotypic prototypicality, stereotyping, attractiveness, femininity, masculinity

The number of people who marry outside their race has increased dramatically in the past few decades: more than doubling from 651,000 interracial marriages in 1980 to nearly 1,674,000 in 2002 (U.S. Census Bureau, 2004). Although the overall number of individuals who marry outside their race has increased, not all groups intermarry to the same degree. Particular patterns are apparent. For example, White men marry Asian women more frequently than White women marry Asian men (Fryer, 2007). We suggest that Whites’ intermarriage with Asians may, in part, reflect racial stereotypes that shape perceptions of attractiveness. In this investigation, we argue that the stereotypes that Asians are feminine and unmasculine are applied more strongly to those whose appearance is more prototypically Asian. This theory suggests that Whites will perceive women who look more Asian as being more desirable than those who have less prototypical appearances, and Whites will see prototypically Asian men as less attractive than their less racially prototypical counterparts.

Interracial attraction is an important context to examine because attractiveness is associated with a variety of societal advantages. Compared with less attractive individuals, attractive people receive more attention, cooperation, and help from their peers (Langlois et al., 2000). More attractive individuals are perceived as being more socially capable, they earn higher wages, and they have a higher level of self-esteem than their less attractive counterparts (Langlois et al., 2000).

*Physical Masculinity and Femininity Shape Perceived Attractiveness*

What determines perceptions of attractiveness? Experimental studies have demonstrated that individuals find those with prototypical sex characteristics attractive (e.g., Rennels, Bronstad, & Langlois, 2008; Rhodes, 2006). Men consider feminine female faces more attractive than more masculine female faces (Rhodes, 2006). Similarly, women prefer men who possess masculine physical features to those with more feminine features (Cunningham, Barbee, & Pike, 1990; see Rennels et al., 2008, for review).

Although it is apparent that perceptions of masculinity and femininity affect attractiveness, people’s perceptions of these characteristics may not directly map onto objective physical features; in other words, people may not always see what is actually there. In fact, perceptions of physical facial features are shaped by individuals’ expectations (Eberhardt, Dasgupta, & Banaszynski, 2003). Societal stereotypes may also work as expectations that shape perceptions of physical masculinity and femininity. What stereotypes might affect perceptions of Asians’ physical gendered characteristics?

*Asians Stereotyped as Feminine*

Cultural studies literature has suggested that stereotypes of Asians portray both genders as being feminine. According to Fujino (1992) and Williams (1994), Asian women are portrayed in the media as “exotic, subservient, or simply nice” (Mok, 1999, p. 107)—all feminine traits. Asian men, in contrast, are presented as lacking in the physical appearance and social skills needed to...
attract women (Mok, 1999, p. 107). In other words, they are seen as insufficiently masculine.

Empirical studies have also alluded to the association between Asians and femininity (Cheng, 1996). When participants are asked to select group leaders, they report preferring leaders who possess masculine traits, and Asian men are the least likely to be chosen (when participants are given the choice of several racial and gender groups; Cheng, 1996). We were unable to locate any empirical research specifically examining gendered stereotypes of Asian women, but we expect that they would also be perceived as feminine.

**Within-Group Variability Affects Perceptions of Trait Masculinity and Femininity**

Although stereotypes exist for all groups, they are not applied uniformly to every member of a group. The degree to which individuals are stereotyped varies as a function of their physical appearance. Those whose appearance is perceived as being more prototypical of their racial group, those high in phenotypic prototypicality (PP) are stereotyped more than those low in PP (Maddox & Gray, 2002). Asians with darker hair, smaller eyes, and fuller cheeks are considered high in PP (Mok, 1998, pp. 5–6) and should be more strongly associated with Asian stereotypes than those low in PP. Thus, high-PP Asians should be seen as more feminine than low-PP Asians.

Researchers (Goff, Thomas, & Jackson, 2008) have provided initial evidence that racial stereotypes are gendered and vary within groups. Goff et al. (2008) found that Blackness is associated with maleness; for example, more stereotypically Black physical movement was associated with higher masculinity ratings. Thus, although there is early support that gendered stereotypes characterize variation in perceptions of Blacks, no such empirical evidence exists for Asians. More important, researchers have yet to examine the direct relationship between PP (physical features rather than movement) and perceptions of attractiveness, the goal of the current investigation.

**Current Studies**

In two studies, we examined how gendered stereotypes affect outgroup members’ perceptions of Asians. We expected that Asians of both genders would be seen as being feminine. Specifically, in Study 1 we tested the hypothesis that Asians will be stereotyped as being more feminine and less masculine than other racial groups (Blacks and Whites).

Given research suggesting higher PP individuals are stereotyped to a greater extent than their lower PP counterparts (Maddox & Gray, 2002), we hypothesized that higher PP Asians (both male and female) would be perceived as more feminine and less masculine than their low-PP counterparts. Finally, given the tendency for individuals to find femininity attractive only for women (Rhodes, 2006), we expected that high-PP Asian women would be perceived as being more attractive than lower PP women, but that higher PP Asian men would be seen as being less attractive than lower PP men. Thus, we hypothesized that ratings of masculinity and femininity would mediate the relationship between PP and perceptions of Asians’ attractiveness.

**Study 1**

The purpose of Study 1 was to assess gendered stereotypes for three different racial groups by directly measuring perceptions of femininity and masculinity. We hypothesized that participants would stereotype Asians as being more feminine and less masculine than Whites and Blacks.

**Method**

Participants. Participants were 32 White (mean age = 19.9 years, SD = 2.13 years), predominately female (68.8%) University of Washington students who were recruited in public places around campus.

Procedures. Participants completed a survey assessing six different groups’ masculinity and femininity (described next). Participants also provided demographic information.

Measures: masculinity and femininity. Participants rated the masculinity and femininity of Asians, Blacks, and Whites of both genders by responding to the question “Based on your opinion, how masculine/feminine are the following racial and gender groups?” using a 7-point Likert scale from 1 (not at all) to 7 (very much so).

**Results**

**Analysis plan.** We used two separate 2 (participant sex: male, female) × 2 (target sex: male, female) × 3 (target race: Asian, Black, White) repeated-measures analyses of variance to analyze the effect of participants’ sex, targets’ race, and targets’ sex on perceptions of masculinity and femininity. There were no significant interactions, so we simply report the main effects of target race and target gender.

**Masculinity.** Participants reported perceiving that the masculinity of the three racial groups differed significantly from one another, F(1.48, 41.62) = 80.87, p < .001, partial η² = .74; Mauchly’s test indicated the assumption of sphericity was violated, χ²(2) = 11.45, p = .003, so degrees of freedom were corrected using the Greenhouse-Geisser correction (ε = .74). Repeated-measures contrasts revealed that Asians were perceived as being the least masculine; Whites (M = 3.89, SD = 0.11) were stereotyped as being more masculine than Asians (M = 2.56, SD = 0.14), F(1, 28) = 52.67, p < .001, partial η² = .65, and less masculine than Blacks (M = 4.96, SD = 0.15), F(1, 28) = 61.19, p < .001, partial η² = .69 (see Figure 1).

**Femininity.** Participants also reported perceiving differences in femininity between the three racial groups, F(1.51, 42.29) = 46.74, p < .001, partial η² = .63; Mauchly’s test indicated the assumption of sphericity was violated, χ²(2) = 10.58, p = .005, so degrees of freedom were corrected using the Greenhouse-Geisser correction (ε = .78). Repeated-measures contrasts revealed that Asians (M = 5.06, SD = 0.17) were stereotyped as being most feminine; they were rated as more feminine than Whites (M = 4.11, SD = 0.12), F(1, 28) = 26.77, p < .001, partial η² = .49, and Whites were rated as more feminine than Blacks (M = 3.16, SD = 0.13), F(1, 28) = 40.08, p < .001, partial η² = .59 (see Figure 1).

**Target gender.** As expected, participants rated men as being more masculine (M = 5.21, SD = 0.12) than women (M = 2.40,
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SD = .16, F(1, 35) = 135.95, p < .001. Men were also rated as less feminine (M = 2.49, SD = .15) than women (M = 5.74, SD = 0.15), F(1, 28) = 166.03, p < .001.

Asians seen as more feminine than masculine. In addition to examining how Asians compared with other racial groups, we thought it informative to examine how Asians were perceived as a group. Asians were stereotyped as more feminine (M = 5.05, SD = 0.82) than masculine (M = 2.67, SD = 0.69), t(29) = 9.90, p < .001, r = .88.

Discussion

Study 1 provides empirical evidence that Whites stereotype both Asian men and women as being less masculine and more feminine than other racial groups, as well as being more feminine than masculine. It is the first empirical study of its kind, to our knowledge, that directly examines gendered stereotypes of Asians rather than how stereotypes about Asians affect perceptions of their fit in counterstereotypic domains, such as leadership (i.e., Cheng, 1996).

Study 2

Although Study 1 indicated that Asians are stereotyped as being less masculine and more feminine than other racial groups, it remains unclear as to whether this stereotype relates to perceptions of attractiveness. Study 2 examined the role of PP in Whites’ perceptions of Asians’ physical masculinity, femininity, and attractiveness.

We expected that higher PP Asians would be perceived as more feminine and less masculine than lower PP Asians, in line with research on the connection between PP and stereotyping (Maddox & Gray, 2002). Furthermore, we hypothesized that higher PP would be associated with high attractiveness ratings for Asian women and lower attractiveness ratings for Asian men.

Method

Participants and research design. Participants were 71 (mean age = 19.4 years, SD = 1.4 years, 66.2% women) self-identified White students recruited from the University of Washington’s psychology participant pool. They completed the study in exchange for course extra credit. Data from 3 participants were lost as a result of computer malfunction, yielding data for 68 participants.

Procedures. Participants were told they were completing a computerized study on face perception. They were randomly assigned to one of three conditions. Conditions differed in the specific dimensions rated; participants in one condition rated targets on PP, those in another condition rated targets on physical masculinity and femininity, and those in the final condition rated targets on attractiveness. We used separate groups of coders to avoid potential insight into the hypotheses and shared method variance that would otherwise have occurred if the same people rated all three attributes. We had participants of both genders rate both male and female faces on attractiveness because men and women tend to agree on how attractive faces are, regardless of whether faces are of the same or the opposite gender (Langlois et al., 2000). All participants completed demographic measures.

Experimental stimuli. Stimuli were color images of 100 Asian faces (50 male, 50 female) presented on the computer. Fifty Asian male images were randomly selected from the Eberhardt face database (see Eberhardt, Davies, Purdie-Vaughns, & Johnson, 2006, for reference to Black faces). Asian female images were selected from multiple databases because the Eberhardt database contains only images of men: the FERET database (see Phillips, Moon, Rizvi, & Rauss, 2000; Phillips, Wechsler, Huang, & Rauss, 1998), the Face-Place Face Database Project (Tarr, 2008), the Center for Vital Longevity Face Database (Minear & Park, 2004), and the Bao Face Database. All faces had a neutral expression, were cropped at the neck to remove clothing, and were displayed in frontal view with all features fully visible. The images were standardized to a white background and resized to 200 pixels in height.

Measures.

Perceptions of PP. We adapted two items from Wilkins, Kaiser, and Rieck (2010) to measure participants’ impressions of targets’ PP: “How stereotypically Asian does this person look?” and “How similar to other Asians does this person look?” rated on a 7-point Likert-type scale from 1 (not at all stereotypical/similar) to 7 (very stereotypical/similar).

Perceptions of physical masculinity and femininity. We used two items to measure participants’ impressions of targets’ physical masculinity and femininity: “How masculine is this person’s appearance?” and “How feminine is this person’s appearance?” rated on a 7-point Likert-type scale from 1 (not at all masculine/feminine) to 7 (very masculine/feminine).

Perceptions of attractiveness. We used two items to assess participants’ impressions of targets’ attractiveness: “How physically attractive is this person?” and “How good-looking is this person?” rated on a 7-point Likert-type scale from 1 (not at all attractive/good-looking) to 7 (very attractive/good-looking).

We calculated intraclass correlations for these four dimensions, which displayed high agreement between participants for ratings of PP, masculinity, femininity, and attractiveness (intraclass correlations ranged from .94 to .98).

Results

Data from 2 participants were removed because of experimental error. We conducted analyses using the remaining 66 participants.

Figure 1. Rating of masculinity and femininity for Asians, Whites, and Blacks.

![Figure 1](image-url)
Three male targets were removed from the stimuli set because they were outliers; one had an average masculinity rating more than two standard deviations from the mean, one had a femininity rating three standard deviations from the mean, and one had an attractiveness rating more than two standard deviations from the mean. This yielded a total of 50 female targets and 47 male targets for which data were analyzed.

Data restructuring and analysis plan. We assessed each of the four dimensions—PP, masculinity, femininity, and attractiveness—using two items that were averaged together to create a single composite score for each target. This yielded four distinct composite scores (one score for PP, masculinity, femininity, and attractiveness) for each target image.

As expected, analyses revealed interactions between PP and target gender on all dependent measures: masculinity, $F(1,95) = 188.41, p < .001$; femininity, $F(1,95) = 204.89, p < .001$; and attractiveness, $F(1,95) = 4.87, p = .03$. We subsequently examined the relationship between PP and the dependent measures separately for male and female targets.1

Asian men: Phenotypic prototypicality predictive of masculinity and attractiveness. For Asian male targets, we first examined the relationship between PP and target gender on all dependent measures: masculinity, $F(1,45) = 3.94, R^2 = .08, b = -1.11, SE = .06, p = .05$; the higher the PP, the less masculine male targets were perceived as being. Higher PP was not significantly associated with higher femininity ratings, $F(1,45) = 2.04, R^2 = .04, b = .07, SE = .05, p = .16$.

Also consistent with the hypotheses, we found a negative relationship between PP and attractiveness such that higher PP Asian men were perceived as being less attractive than their lower PP counterparts, $F(1,45) = 9.49, R^2 = .17, b = -1.25, SE = .08, p = .04$. In essence, the more Asian looking a male was rated as being, the less attractive he was seen as being.

Do perceptions of masculinity drive the relationship between PP and attractiveness for male targets? We used Baron and Kenny’s (1986) procedure to assess whether perceptions of masculinity mediate the relationship between PP and attractiveness for Asian men. We have already shown that PP predicts attractiveness and masculinity. We next demonstrated that higher masculinity scores corresponded to higher ratings of attractiveness for male targets, $F(1,45) = 12.0, R^2 = .21, b = .67, SE = .20, p = .001$. To assess mediation, we simultaneously regressed attractiveness on PP and masculinity. Both PP ($b = -.19, p = .02$) and masculinity ($b = .54, p = .007$) remained significant predictors when entered together, $F(2, 44) = 9.42, R^2 = .30, p < .001$, suggesting that both PP and masculinity predict attractiveness of Asian men, but that masculinity perceptions do not mediate the effects of PP on attractiveness. Also consistent with this, a Sobel test showed that the drop in beta for PP was not significant ($z = -1.63, p = .10$).

Asian women: Phenotypic prototypicality not predictive of attractiveness. For Asian women, none of the hypotheses about the relationship between PP and masculinity, femininity, or attractiveness were supported ($ps > .48$). We did, however, find the expected relationship between gendered characteristics and attractiveness; the more masculine a female target was rated, the less attractive she was seen as being, $F(1,48) = 54.92, R^2 = .53, b = -9.99, SE = .13, p < .001$, and the more feminine a female target was rated, the more attractive she was rated as being, $F(1,48) = 93.24, R^2 = .80, b = .92, SE = .07, p < .001$.

Discussion

In support of our hypotheses, the results from Study 2 show that PP is related to Whites’ perceptions of masculinity and attractiveness for Asian men. Specifically, higher PP Asian men are perceived as possessing less masculine appearances than their lower PP counterparts. Furthermore, higher PP Asian men are perceived as being less attractive than lower PP Asian men. However, masculinity did not drive the relationship between PP and attractiveness, suggesting that both PP and masculinity are important predictors of attractiveness for Asian men.

Future work can explore what specific aspects of PP, beyond stereotyping and perceptions of masculinity, shape perceptions of attractiveness. One potential explanation for why PP is correlated with attractiveness after controlling for masculinity ratings is that individuals rate less attractive Asian men as looking more prototypically Asian (a different causal pathway than the one we originally suggested). None of the hypothesized relationships were significant for Asian women.

General Discussion

We sought to examine the role of stereotyping in interracial attraction. We suggested that gendered racial stereotypes portray Asians as being particularly feminine, which is considered attractive for women, but not for men (Remels, Bronstad, & Langlois, 2008; Rhodes, 2006). Study 1 provided evidence that both male and female Asians are in fact stereotyped as being feminine and unmasculine; Asians were rated as being more feminine and less masculine than Blacks and Whites, and Asians as a group were perceived as being more feminine than masculine.

Having established that Asians are characterized as being feminine and unmasculine, Study 2 examined whether the degree to which Asian targets look like prototypical Asians (PP) affects perceptions of their gendered characteristics and attractiveness. In line with work demonstrating the connection between PP and stereotyping (Maddox & Gray, 2002), Study 2 revealed that among Asian men, higher PP was associated with lower perceived masculinity. More important, Study 2 also demonstrated that higher PP was related to lower perceived attractiveness; the more Asian a man looks, the less attractive he is perceived as being to Whites. This may, in part, explain why the rate of White women marrying Asian men is particularly low.

Among Asian men, we did not find the hypothesized relationship between PP and perceived femininity. This null finding may reflect self-presentational concerns on the part of our participants. It may have been more socially appropriate for them to report perceiving that a man lacks masculine characteristics than to imply

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1 We found no significant differences in the relationship between PP, masculinity, femininity, or attractiveness between our male and female participants; in other words, the relationship between the primary variables of interest appear to function similarly for male and female perceivers, so we report their combined results.
that he possesses feminine characteristics. Our data partially sup-
port this explanation, because the mean and variability of the male
targets’ femininity ratings were rather low ($M = 1.94$, $SD = 0.33$)
on a scale ranging from 1 to 7. Another alternative is that percep-
tions of masculinity are simply stronger indicators of attractiveness
for men than are perceptions of femininity.

Although most of our hypotheses held for Asian men, none of our
hypotheses for Asian women were supported. This could simply
mean that there is no relationship between PP and perceptions of
attractiveness for Asian women. Stereotyped gender congruency may
matter less for Asian women. The social expectations for men to be
manly may also be greater than those for women to be feminine
(Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008), and so the
former may be more connected to perceptions of attractiveness than
the latter. Future work can explore these possibilities.

This work is not without limitations, including our use of a
convenience sample. We were compelled to use all-White samples
in accordance with our interest in interracial perceptions of attrac-
tiveness. Additionally, all participants were college students. Thus,
we are unable to verify whether results would generalize to other
samples. For example, interracial attraction may work quite dif-
ferently among older populations, especially given evidence that
intrerracial marriage patterns and group stereotypes have changed
substantially over the decades (Fryer, 2007).

This research advances understanding of attractiveness in im-
portant ways. It is the first empirical study of its kind to demon-
strate how variation in PP relates to perceptions of masculinity and
attractiveness for Asians. Moreover, it provides support for the
notion that perceptions of beauty may not be based solely on
objective physical characteristics (also see Swami & Tovée, 2006),
by showing that they are also shaped by racial stereotypes. Fur-
thermore, it informs the literature on interracial attraction, poten-
tially helping to explain why Asian men are the least likely to
marry outside their race. If Whites find very Asian-looking men
less masculine and less attractive, it follows that Asian men would
be perceived as less desirable dating partners than other men.
Finally, this work broadly informs literature on the intersectional-
ity of race and gender by demonstrating the ways in which per-
ception of race (PP) shapes perceptions of gender (masculinity; also see Goff et al., 2008; Purdie-Vaughns & Eibach, 2008;
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