

## **Those Wonderful People across the Sea: Positive Out-Group Bias by Caucasians toward Asians**

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### **Abstract**

While individuals often favor their in-group, they sometimes favor an out-group, such as when Caucasians positively stereotype Asians' quantitative abilities. It is unclear, however, whether positive stereotypes of Asians extend into other domains and create a generalized halo effect that influences judgments on other attributes. To examine this, three studies were performed. In Study 1, Asians and Caucasians were equally biased toward an Asian's response to a calculus problem. In Study 2, Asians, but not Caucasians, gave lower grades to essay writers they guessed were Asian. In Study 3, Caucasians rated their ethnic group with fewer positive terms and more negative terms than they rated Asians on general personality characteristics. Results suggest that Caucasians' views of Asians are more positive than self-judgments of each group, and that Caucasians' judgments about Asians may be influenced by a generalized halo effect.

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Unlike other minority groups, who are often the targets of negative stereotyping, Asians and Asian-Americans are often stereotyped positively in the United States, particularly with regard to cognitive ability and academic achievement. These positive stereotypes may hold some degree of accuracy (Sue & Okazaki, 1990). Individuals of Asian descent, particularly those from East Asia, are overrepresented at elite U.S. universities and at highly competitive U.S. medical schools, and males of Asian Indian heritage have more than triple rate of college education than do U.S. white men (Choe, 2009). Such success has caused Asian-Americans to be generally excluded from affirmative action programs in the U.S., designed to increase minority representation in university admissions and in company hiring decisions.

Such achievements have also helped perpetuate the stereotype of Asian-Americans as a *model minority* whose members overcome disadvantaged circumstances via hard work and perseverance (Kao, 1995). Researchers, however, have identified substantial disadvantages of the model minority stereotype, including lower academic performance as a result of impaired concentration when ethnicity is made salient (Cheryan & Bodenhausen, 2000), perhaps as a result of *stereotype threat*, which results when individuals are concerned about confirming others' expectations of one's performance (Steele & Aronson, 1995). Indeed, some Asians in the U.S. have remarked that the expectations for academic success can become burdensome, particularly for those who struggle in their academic endeavors (Wing, 2007). More seriously, overly positive stereotypes of Asians may lead others to see Asians as a competitive threat and to justify discriminatory actions (Glick & Fiske, 2001), and may also lead to a general disregard for the physical, emotional, and social concerns of Asians in the U.S. (Islam, Trinh-Shevrin, & Rey, 2009).

Despite the growing interest in the effects of positive stereotypes toward Asians, no study has examined whether the positive stereotypes this group receives extend more generally to other domains. A well-established principle in psychology is that of the *halo effect*, or the tendency of an evaluatee who scores highly on one trait to receive higher scores on unrelated traits (Thorndike, 1920). In Thorndike's classic view, evaluators are "unable to treat an individual as a compound of separate qualities and to assign a magnitude to each of these in independence of the others" (p. 28). Instead, raters are likely to rate all traits using a global impression of the individual. Such impressions are often based on irrelevant attributes, such as when ratings of intellectual ability are related to the ratee's physical attractiveness (Eagly, Ashmore, Makhijani, & Longo, 1991). Such halo effects are considered to operate without implicit awareness (Greenwald & Banaji, 1995) and have been found in a variety of domains, including the assessment of an individual's height based on status (Wilson, 1968), evaluations of a university's academic quality based on its teams' athletic success (Goidel & Hamilton, 2006), and evaluations of a product's quality based on gift-wrapping (Howard, 1992). It is, therefore, possible that Asians in the U.S. are seen more positively on a number of variables both inside and outside the academic domain. Indeed, the U.S. stereotype of Asians also includes positive views of Asians' work ethic and family connectedness (Yu, 2006), as well as the familiar stereotypes regarding academic aptitude.

Halo effects, as with other implicit cognitive processes, are presumed to work based on prior exposure. In the present studies, judges are assumed that they already have experience with one attribute (in this case, a stereotype regarding Asian's presumed superiority in math and science achievement) and this is thought to influence ratings on other, more novel attributes (Greenwald & Banaji, 1995). On the other hand, ample evidence also exists that individuals favor their ethnic in-groups more highly than they favor ethnic out-groups. For example, Boulton and Smith (1992) found that both Caucasian and Asian children in Britain rated their in-group most favorably on both positive and negative traits, and that Caucasian children were least likely to prefer sharing activities with Asians. It is unclear, therefore, whether in-group bias would serve to depress Caucasians' evaluations of Asians in domains outside academic skills or whether a possible halo effect would serve to inflate them. Because stereotypes of Asians' intellectual capabilities typically focus on the mathematical and scientific domains, it is likewise unclear whether Caucasians' evaluations of Asians on language-based activities would be favorably

biased. Due to the pervasiveness of the halo effect and the persistence of the model minority myth regarding Asians in the U.S., we believed that Caucasians would rate Asians favorably across traits and domains.

To test these ideas, a series of three studies was developed. In Study 1, we sought to determine the degree to which Caucasians and Asians shared a bias in favor of Asians' mathematical abilities. In Study 2, we sought to determine whether this bias would extend to language writing abilities. In Study 3, we sought to determine whether Caucasians and Asians would show a bias in the assignment of favorable and unfavorable character traits to each group. We aimed to determine whether positive Asian stereotypes in mathematic abilities would create a halo effect around the ratings Caucasians made of Asians' abilities outside that domain, or whether in-group biases would serve to depress ratings that Caucasians made of Asians. In addition, we sought to determine whether Asians showed biases in these domains.

## **Study 1 - Ratings of Mathematical Ability**

In order to confirm the existence of positive stereotypes regarding Asians' quantitative ability in the present sample, we conducted a study to determine whether Asian and Caucasian participants would errantly rate an Asian student's incorrect response on a calculus problem as being correct. Our hypothesis was that both Asians and Caucasians would show a bias toward endorsing the Asian's response as being accurate.

### **Method**

#### **Participants and Procedure**

A total of 81 university undergraduate students (40 Caucasian; 41 Asian) at a small university in Hawaii were recruited for participation over the fall of 2007. Individuals were recruited by approaching participants in common areas on the university campus. Participants completed measures while a researcher waited to collect the questionnaire packet. More than 85% of the Asian participants were born outside the U.S.

#### **Measures**

Participants were presented with a calculus problem and two possible solutions written in different handwriting. The problem was complex and involved the use of integrals. (See Appendix B for calculus problem used.) Solution A was signed with the name "Emily Johnson," and the solution B was signed with the name "Guang-yao Wang." Both names are female. Participants were asked to indicate which of the solutions was correct. (In actuality, both solutions contained errors.)

### **Results**

Of the 81 participants, 67.9% ( $n = 55$ ) indicated that the Asian's response was correct and 32.1% ( $n = 26$ ) indicated that the Caucasian's response was correct. None indicated that both were incorrect. Chi-square analysis was then used to determine whether the two ethnic groups differed in their bias toward the Asian participant's response. They did not, chi-square (1) = 1.06,  $p = .30$ . In all, 63.5% of Caucasians and 73.2% of Asians chose the Asian's response over the Caucasian's.

### **Discussion**

As found in previous research, Caucasians exhibited a stereotype in the present study in favor of Asians' mathematical ability. Asians shared this bias toward their own group. The magnitude of this stereotype did not statistically differ between Asians and Caucasians.

Although it is expected that many participants understood the names to have been female, no manipulation check was undertaken to determine that all participants recognized the gender of both names to be female, particularly since the gender of the names may have been obscure to individuals unfamiliar with naming practices outside their culture. Although the lack of manipulation check makes it unclear whether issues related to gender may have influenced the findings, the findings do correspond with the previously established idea that Caucasians consider Asians to have superior mathematical abilities (e.g., Aronson et al., 1999). The present study suggests that Asians also share this view.

## **Study 2 - Bias in Ratings of Writing Achievement**

Study 1 supported previous research that implies that Caucasians show a bias toward Asians in their judgment of mathematical achievement. In Study 2, we sought to evaluate whether this bias would extend to the scores provided on a written essay. We anticipated that this would serve as a test of in-group bias if members of each ethnic group were to assign higher grades to essays identified as being written by a member of their own group.

### **Method**

#### **Participants and Procedure**

A total of 98 university undergraduate students (45 Caucasian; 53 Asian) at a small university in Hawaii were recruited for participation. The method and time-frame were identical to that used in Study 1. As in Study 1, a large majority of the Asian students were born outside the U.S.

#### **Measures**

Participants were presented with an essay entitled "Is playing games important for adults?" and a 6-point scoring guide, with 6 as the highest possible score. Participants were asked to indicate whether they believed the essay was written by a Caucasian or an Asian, and to provide a score from 1 through 6 based on the scoring guidelines.

### **Results**

A majority of the Caucasian participants (55.6%) guessed that the essay was written by a Caucasian, and a majority of the Asian participants (62.3%) guessed that it was written by an Asian. Chi square analysis showed that the tendency for raters to judge the writer to be a member of their own race was marginally significant, chi square (1) = 3.11,  $p = .08$ .

Racial groups were then analyzed separately to determine how their judgment of the writer's race was related to the grade they assigned to the essay. To do this, the sample was divided based on rater race and correlational analyses undertaken to determine the relationship between the scores given to the essay and their judgments of the rater's race. Assignment of race was considered a dichotomous variable with Caucasian assigned the value of 0 and Asian assigned the value of 1. The indicated findings showed that Asians gave significantly higher scores to essays they judged to be written by a Caucasian ( $M = 4.9$ ) than to those they judged to have been written by an Asian ( $M = 4.2$ ),  $r = -.38$ ,  $p = .006$ . There was no significant difference in the ratings given by Caucasians (Caucasian  $M = 4.9$ , Asian  $M = 4.8$ ),  $r = -.11$ ,  $p = .47$ .

### **Discussion**

Unlike the ratings of mathematical skills, Asian participants gave higher scores to essays they identified as being written by a Caucasian student. Although no causal inference may be

drawn from this correlational study, findings suggest that Asians see Caucasians as superior performers in English writing ability, whereas Caucasians in this sample did not.

### **Study 3 - General Trait Ratings**

Study 1 showed that Caucasians were biased toward Asians when judging the correctness of a difficult mathematical problem, and Study 2 showed that Caucasians gave Asians and Caucasians equivalent scores to a written essay, whereas Asians gave higher scores to writers they believed were Caucasian. Study 3 was designed to determine whether Caucasians and Asians would show biases in making generalized personality attributes.

## **Method**

### **Participants and Procedure**

A total of 68 university undergraduate students (29 Caucasian; 39 Asian) at a small university in Hawaii were recruited for participation. As in Studies 1 and 2, participants were recruited from common areas of the university campus over the fall of 2007. A substantial majority of the Asian students were born outside the U.S.

### **Measures**

Participants completed a 20-item questionnaire in which they were asked to determine which national group (Chinese, Japanese, U.S., Canadian) was the best fit for each of ten positive (e.g., "Imaginative") and ten negative (e.g., "Superstitious") personality traits. (See Appendix A for complete trait list.) Responses were grouped into categories labeled "Caucasian" and "Asian."

## **Results**

### **Ratings of Positive Personality Traits**

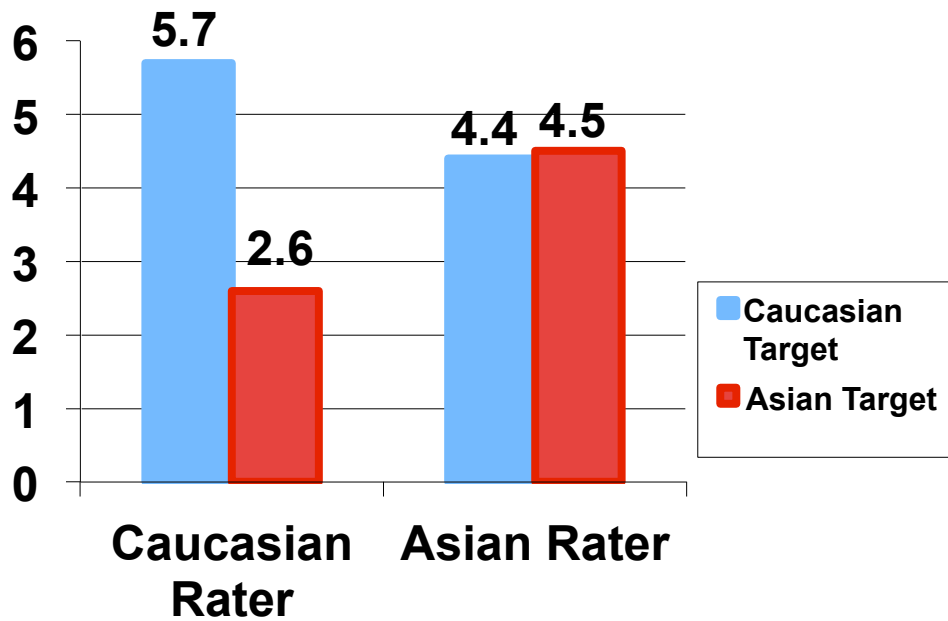
We first sought to determine whether each ethnic group would show biases in the way they assigned positive personality traits. To do so, we elected to perform two separate t-tests, one to compare the judgments of Caucasians in their ratings of each ethnicity and one to compare the judgments of Asians in their rating of each.

T-test analysis found that Caucasians were more likely to assign positive traits to Asians ( $M = 5.4$ ) than to Caucasians ( $M = 3.6$ ),  $t(56) = -5.14$ ,  $p < .001$ . Asians were also more likely to assign more positive traits to Asians ( $M = 5.4$ ) than to Caucasians ( $M = 3.7$ ),  $t(76) = -6.22$ ,  $p < .001$ .

### **Ratings of Negative Personality Traits**

We next sought to determine whether there were biases in the way each group assigned negative personality traits. We did this in the same manner as above.

Findings indicated that Caucasians were significantly more likely to assign negative traits to themselves ( $M = 5.7$ ) than to Asians ( $M = 2.6$ ),  $t(56) = 8.78$ ,  $p < .001$ . Asians assigned an equal number of negative traits to Caucasians ( $M = 4.4$ ) and themselves ( $M = 4.5$ ),  $t(76) = -.29$ ,  $p = .90$  (see Figure 1.)



**Figure 1.** Number of negative personality traits assigned to each ethnic group by Asian and Caucasian participants.

## Discussion

Findings of this study indicated that both Caucasians and Asians rated Asians highly on positive personality attributes. On negative personality attributes, Caucasians were more likely to assign negative characteristics to their own ethnic group, whereas Asians assigned negative attributes equitably. These findings run contrary to previous literature that suggests that Caucasians show an in-group bias and are more likely to give higher ratings on personal attributes to their own group (Aronson, 2004; Boulton & Smith, 1992) and seem to suggest that Caucasian participants in this sample see Asians in a particularly positive light, even compared to members of their own ethnic group. Asians in this sample do not appear to share this out-group bias. In regards to positive attributes, Asians did show an in-group bias. On negative characteristics, it is possible that the equal assignment of negative traits reflects a previously identified cultural reluctance for Asians to criticize. Such disparities in criticism may result in another's loss of face (Bond & Lee, 1981) and is frowned upon on in East Asian cultures. Face-saving acts, such as an equitable assignment of criticism, are considered important in these cultures.

## General Discussion

Over the course of three studies, Caucasian university students showed markedly favorable attitudes toward Asians in a variety of domains, including those irrelevant to the predominant stereotype in the U.S. regarding Asians' supposed aptitude in math and science. Caucasians strongly favored an Asian person's response to a difficult mathematics problem over a Caucasian's response in Study 1. They gave equivalent grades to essay writers regardless of whether they judged the writer as being Asian or Caucasian. Caucasians also assigned more favorable personality attributes and fewer negative personality attributes to Asians in Study 3.

Asians also showed a bias toward the Asian's (incorrect) response to the mathematics problem, which suggests that Asians themselves share the stereotype that Asians have higher aptitude in this area than Caucasians. When they judged the essay writer as being Asian, they assigned the essay lower grades. Finally, Asians assigned more favorable personality attributes to their own group than to Caucasians, a finding consistent with the existence of an in-group bias functioning among Asian participants.

These findings contrast with what would be expected from in-group bias functioning among Caucasians in this sample, and suggest that a diffuse and generalized halo effect has developed around Asians in the U.S. Such a halo would be a recently developed phenomenon. Historically, Asians have been discriminated against in the U.S., with Asians segregated into "Chinatown" areas of large cities and with anti-Asian sentiment codified into 19th and early-20th century laws (Wing, 2007). These attitudes culminated in the 1940s, with the forced internment of Japanese-Americans into isolated camps as a result of World War II hysteria. Only two decades later, however, American attitudes toward Asians began to change, with Japanese- and Chinese-Americans termed "model minorities" due to their educational and occupational successes (Kitano, 1969; Kitano & Stanley, 1973; Peterson, 1966). Findings of the present study suggest that, at least in a highly multicultural environment such as Hawaii, prior negative stereotypes have diminished and more positive stereotypes have developed that contribute to generalized positive attitudes toward Asians in a variety of domains.

The idea that a halo effect may provide an explanation for some forms of racial stereotyping appears to be a novel approach. Despite the fact that hundreds of articles have been published on the halo effect, we have found none that have examined the halo effect when applied to members of stereotyped minority groups, although the connection has been made in the popular press (National Public Radio, 2007). It is well established, however, that when an individual holds an opinion about a target in one domain, that opinion tends to be generalized toward other domains, including domains relevant to the national origin of the target such as the appeal of accented speech (Nisbett & Wilson, 1977). It is, therefore, possible that Caucasians who participated in the present studies experienced a generalized favorable bias toward Asians as a result of a halo that surrounds Asians' supposed positive abilities.

Such an effect would be expected when considering the supposed origins of the halo effect, which has been proposed to function outside conscious awareness (Greenwald & Banaji, 1995). The halo is caused when previous experience with one trait diffuses into a general positive attitude toward the target. In this case, the previous experience itself would be based on a stereotype, another implicit cognition.

The effects of the model minority stereotype are currently being debated. Asians who themselves endorse the model minority stereotype of their own group have been shown to have greater resilience (Mahalingam, Balan, & Haritatos, 2008) and may use pride in their ethnic group's achievements to feel like they occupy a higher social position in the U.S. (Mahalingam, 2006). In educational settings, educators have been found to have strongly positive stereotypes of Asian students (Chang & Demyan, 2007), which may lead to a *self-fulfilling prophecy* in which such expectations help result in students' greater achievement (Merton, 1948; Rosenthal & Jacobson, 1968). These prophecies, however, are now thought to have more modest effects in real-world classrooms than first described (Jussim & Karber, 2005), and recent research has suggested that the model minority stereotype may be harmful to some Asians in a variety of contexts. For example, despite Asians' success in the U.S. academically, they perform more poorly than other ethnic groups in the U.S. on indices of psychological adjustment, including measures of depression, suicide rates, and feelings of family alienation (Qin, Way, & Mukherjee, 2008). In addition, the model minority stereotype may lead to discrimination due to feelings of envy or resentment on the part of non-Asians (Rosenbloom & Way, 2004), or may lead to a benign neglect of Asians' actual concerns (Islam, Trinh-Shevrin, & Rey, 2009). At the greater extreme, some have claimed that the model minority stereotype is a political tool used to deny the existence of racism and to perpetuate inequitable social structures (Yu, 2006).

To be sure, the stereotype of Asians as high achievers who succeed as a result of aptitude and diligence is a far cry from the racist concept of the "Yellow Peril" immigrant horde that was thought to be threatening the U.S. a century ago (Wu, 2002). Nevertheless, a further understanding of both the positive and negative effects of the positive stereotypes toward Asians, and how such stereotypes could diffuse into a generalized positive halo, could enable social scientists to understand the complex social cognition that influences intercultural contact in today's rapidly globalizing society.

Data from the present studies are unable to determine how fragile the halo effect found here may be. Sociopolitical events, such as the rise of a globally despised leader or aggressive acts of one nation against another may swing public opinion dramatically and reverse the halo in only a brief time. The halo might also vanish if the stereotype leading to the halo effect is removed or replaced by a more negative stereotype. Additionally, stereotypes regarding gender or other characteristics (e.g., Communist Party membership) might be found to counteract the positive halo and result in a more negative evaluation.

The present studies are highly limited, and such limitations include the unusually multicultural environment of the participants. The study was conducted at a university in Hawaii that has a high percentage of non-U.S. students. Hawaii has a majority Asian-American population, with substantial Caucasian and Pacific Islander minorities, and the Asian influence has profoundly affected Hawaii's culture and economy. Participants in this study likely had familiarity with a variety of ethnic groups and may be more favorably disposed to Asians in general. In addition, ethnic diversity may result in a higher number of ethnic minority friends (Rosenfield, Sheehan, Marcus, & Stephan, 1981), as well as a milder prejudice level and fewer negative stereotypes toward an individual's ethnic out-group (Foley, 1976). It is possible, therefore, that participants in the present study had atypically low amounts of prejudicial attitudes compared with participant samples from elsewhere in the U.S.

Hawaii also differs from the U.S. culturally and politically, with politically liberal attitudes prevailing in the larger political culture. A recent university fact sheet, however, indicated that, among students attending the university where this study took place, only 17% were from Hawaii with an additional 36% attending from the U.S. Mainland and the balance from international locations, primarily Asia (Brigham Young University-Hawaii, 2007). Since many of the Hawaii residents may have been ethnic minorities, it is likely that the majority of Caucasian students in the present research came to the university from the U.S. Mainland. These students may have possessed characteristics, such as novelty seeking or openness to experience, that distinguish them from Caucasian students at other U.S. universities. Although such assumptions are speculative, it is possible that the present sample may not generalize to the broader population of Caucasian university students in the U.S. It should also be noted that the university is sectarian, which also may have influenced participants' responses in unmeasured directions.

Nevertheless, the present study is among the first to detect the presence of diffuse positive bias around Asians when rated by Caucasian participants in both academic endeavors and general personality, and suggests that in-group bias may at times be overcome by a positive halo effect. The pro-Asian attitudes found here may be similar to positive attitudes that have been found to exist elsewhere across cultural and ethnic lines. For example, one well-executed survey (Kohut, Allen, Doherty, & Funk, 2005) showed high, generalized positive attitudes toward the U.S. among people from India, with Indian respondents showing high endorsement of positive character traits such as "hard working" and "inventive" to describe U.S. citizens and low endorsement of negative character traits. Positive stereotypes of this sort from one ethnic group toward another may help explain phenomena as consequential as the 1990 election of an ethnically Japanese president in Peru or as mundane as the proliferation of French-influenced restaurants in Tokyo. Positive stereotypes, therefore, and the halos that may exist around them, may play an important role in how individuals interact in cross-cultural settings and how cultures and nations may interact with and influence one another.

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**Appendix A**

Intelligent  
Brilliant  
Scientifically-Minded  
Alert  
Shy  
Imaginative  
Ignorant  
Lazy  
Unreliable  
Honest  
Rude  
Stubborn  
Talented  
Efficient  
Humorless  
Kind  
Quarrelsome  
Revengeful  
Respectful  
Superstitious

**Appendix B**

Given the formulas for the sums of powers of integers, answer the following questions.

$$\sum_{k=1}^n k = \frac{n(n+1)}{2} \quad \text{and} \quad \sum_{k=1}^n k^2 = \frac{n(n+1)(2n+1)}{6}$$

Given the function  $f(x) = x^2$ , find a formula for the lower sum obtained by dividing the interval  $[0, b]$  into  $n$  equal subintervals.