

Racial Attitudes toward Black and Asian People: From Chinese International Students' Perspective

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Abstract: Racial bias has been a controversial topic across nations, especially in Western countries. Prior western research intensively studied the racial attitudes and interracial conflicts of white, black, or other minorities. However, researchers seldomly focus their eyesight on Chinese international students, who are the minority group and temporarily reside in these countries. To address the importance of Chinese international students' racial attitudes towards interracial groups and diversify feasible research data, this research used implicit methods and explicit methods to examine implicit and explicit racial attitudes among Chinese international students (N = 27 participants, 13 females and 14 males). Results found that Chinese international students displayed implicit racial preferences for Asians higher than that of Blacks, but there are no explicit racial preferences. Additionally, no correlation was found between implicit and explicit racial biases. These results provide strong evidence for the existence of implicit racial biases and point to the need to reduce these biases among international students.

Keywords: racial bias, implicit bias, explicit bias, international students.

1. Introduction

Globalization has brought close ties between different countries and massive international migrations. People of different skin tones live in the same regions, become neighbors, and share resources. However, while globalization brings benefits, there are also some problems related to the negative attitudes and the rising conflicts among races.

Taking the spot news in the U.S., racial discrimination and racial categorization have always been unignorable topics between the white majority and the other minorities. In the case of Black Lives Matter, a famous movement fighting for Black Americans' equality and fairness, the major society in the U.S. unfairly treated black people and perceived them as having a lower social status than white people [1-3]. Other than black races, some other minorities, such as Asian and Latino races, also received biased and vicious racial attitudes from the major society. According to Keum and colleagues, more than half of the second-generation Asian Americans experienced micro-aggression more than once [4]. They were frequently asked to introduce the countries they biologically came from even if they had proven their U.S. citizenship (see similar findings in [5]). The situation became even worse during COVID-19. Massive negative Chinese news reports and rumors associated with

the pandemic deteriorated the social interracial conflicts between Asian and White people, resulting in Chinese students being forced to bear the overwhelming stress and anxieties from schools [6].

Compared to multiracial countries such as the U.S., Asian countries do not possess large populations of residents from diverse races. Thus, Asian people's racial attitudes toward other race groups are observed to be more negative. In Qian and her colleagues' research, they sampled more than two hundred local Chinese participants, whose ages were across the lifespan [7]. The results shed light on clear implicit racial bias against Black races existing in Chinese children and adults. Similarly, another research by Setoh and colleagues examined the racial attitudes of Chinese and Indian children in Singapore and illustrated strong racial preferences for their own races over another race [8]. Overall, findings across countries proved the existence of racial bias and interracial conflicts regardless of the magnitude of multiracialism and open-mindedness.

1.1. Implicit Attitudes vs. Explicit Attitudes

When addressing the definition of racial bias, people often think of straightforward, extroversive and offensive racial discrimination, for example, being rude or inappropriate to people in other races and laughing at their different skin tone. In fact, action bias accounts for a portion of racial bias. Apart from the explicit racial bias/attitude, there is another type of racial attitude revealing people's immediate or subconscious thought over other races. This is implicit racial attitude.

Implicit attitudes refer to individuals possessing unconscious judgments over two comparable subjects that belong to the same category [9-10]. The two comparable subjects show differences in appearance, smell, taste, and even cultural perceptions. Implicit attitudes often manifest automatically without one's consciousness. Therefore, measuring associations between two discriminated subjects and descriptive words has the role of revealing potential biases that exist in one social group over another.

The implicit association test (IAT) is an assessment that entails measuring the strength of differential association of two concepts using an attribute. The two concepts being measured are placed in a two-choice task while the attribute is set in a second task [9]. When observing the association, performance is enhanced when highly associated categories have a shared response key. On the other hand, when less-associated categories share a key, performance is slower. An example of a two-choice task is flower versus insect, and an example of an attribute category is pleasant words versus unpleasant words [9]. From the examples, categories with a high association are flower plus pleasant words, while insects plus pleasant words have a low association.

On the other hand, an explicit attitude is more visible and tangible. It forms with a deliberate purpose and changes fast as people receive different information from objects [11]. For example, as children get better educated, they learn not to fight each other because teachers told them not to do so. Sometimes they also know to hide their honest thoughts or feelings from other children in order to satisfy teachers' and parents' expectations. In other words, the explicit attitude changes at a relatively quick pace, whereas the implicit attitude shifts slowly but is more stable. Thereby, to examine a person's racial attitude toward different races, both implicit and explicit racial attitudes are required to measure.

The present study investigated implicit and explicit racial attitudes among a group of adult Chinese international students. Particularly, we examined whether they showed implicit and explicit racial attitudes towards Black people and whether implicit attitudes would be correlated with explicit racial attitudes. Additionally, we examined the role of interracial contact in interracial attitudes. Based on previous research, we hypothesized that Chinese international students showed positive implicit and explicit racial attitudes towards their own races relative to other races (H1). Chinese international students' implicit racial bias and explicit racial bias were correlated (H2). Chinese international students' contact with other races positively influenced the magnitude of their racial attitudes (H3).

2. Method

2.1. Participants

The sample consisted of 27 Chinese International students (13 girls and 14 boys) who completed demographic questions, the IAT, and the explicit attitude test with a piece of IAT result for their reference. Fifty-three participants were excluded based on the criterion from further analyses [12]. Data were collected between March 22, 2022, to April 18, 2022. Participants were recruited from an online chat group (WeChat) with a large number of (more than 400) Chinese International students in different countries (e.g., Canada, the US, and the UK). Educational levels were all undergraduate or above. Informed consent was obtained before students' participation. All participants were notified that they had the right to terminate the experiment at any time without penalties, and their data would only be recorded as the identification numbers of random participants.

2.2. Procedure and Stimuli

Upon obtaining consent from participants, they were given an experimental link directed to the test that examined implicit attitudes, followed by explicit attitudes. The experiment was composed of individual information collection, the implicit racial bias test, and the explicit racial bias test. Participants were asked to fill out the demographic information that helped justify if there were connections between biased racial attitudes and the living environment. The test followed an indirect measurement observing the unconscious attitudes or perceptions of a person towards either "Asian" or "Black". We used IAT to assess the implicit attitude of "Black" and "Asian" [9]. Explicit racial attitudes were measured via the Construction and Initial Validation of the Color-Blind Racial Attitudes Scale (CoBRAS) [13]. CoBRAS assessed participants' perception of the existing social conflicts between the black and white in North America. All participants were adults who did not require extra assistance from experimenters. Therefore, the present study test was designed as self-accomplished. We chose the implicit measure as the prior test due to greater attention and lower levels of error presented by the participants [14].

2.3. Measurement

2.3.1. Measure of Implicit Racial Bias

Given the undetectable and automatic attribute of implicit racial bias, it is extremely difficult to observe fair results merely from the explicit measure. The present study utilized the IAT, which has widely prevailed in the psychometric usage of detecting implicit attitudes [9,15,16]. The IAT assessment entails measuring the strength of differential association of two concepts using an attribute. The two concepts being measured are placed in a two-choice task, while the attribute is set in a second task. Performance is enhanced when highly associated categories have a shared response key when observing the association. On the other hand, when less-associated categories share a key, performance is slower. An example of a two-choice task is flower versus insect, and an example of an attribute category is pleasant versus unpleasant words [9]. From the examples, categories with a high association are flower plus pleasant, while insect plus pleasant has a low association. IAT is based on the logic that a strong relationship between concepts and any alteration slows the measurement process because it contradicts the already established associative structures in one's thoughts. Experiments involving discriminative target-concept association confirmed that more-associated categories of concepts led to higher performance than less-associated categories. The experiments proved an automatic association between concepts influencing performance rate [9].

The IAT examined the associations between skin color and “good” or “bad” attributes in the present study. The logic is to compare the difference in response time and accuracy when matching the skin color and different attributes words. If a participant responds faster by associating Black with good and Asian with bad, it provides evidence for implicit racial attributes in favor of Black and against Asian people. We set “Black” and “Asian” as two concept words and collected several descriptive words in categories of good and bad. In terms of skin tone, the test was presented in two groups of pictures with vivid faces in Black and Asian appearance separately, whereas the descriptive words were displayed in several adjectives (e.g., beautiful, wonderful, awful, ugly). The IAT was designed to collect trials in 7 blocks with different instructions. The test introduced Black/Asian categorization and Good/Bad words categorization in the first two blocks by pressing the shared responding key with one trial, respectively. Block 3 and 4 started the first congruency examination, matching Black with Good and Asian with Bad. These two blocks undertook the functions of practice and test, which bore the same tasks as blocks 6 and 7. It was noticeable that the order of the shared responding key swapped in order to test the contradicted establishing concepts of skin color and the good/bad words. In the ending part, blocks 6 and 7 examined whether the discriminative associations appeared in the contradicted categorization part.

D score is one of the measures used to compute the difference between test categories in IAT. It is obtained by dividing the difference between means by the standard deviation of latencies in the two test blocks [12]. The importance of the D measure is that it shows the correlation between the means of results and the variability of the data used to obtain the means. Especially, the difference is divided by the standard deviation, which helps address the variability by adjusting the means. D score is used in IAT because it measures both the strength and direction of an association where variability exists [12]. Moreover, a positive D score suggests a direct association between concepts, while a negative D score shows a reverse association. A zero D score indicates that bias does not exist. Thus, the D score can be used to determine direct, reverse, or no preference in the implicit association.

2.3.2. Measure of Explicit Racial Bias

To test if a person has explicit racial bias over minority groups, a wide range of contemporary research uses surveys and questionnaires containing different Likert Scale points. In the present study, we considered the Construction and Initial Validation of the Color-Blind Racial Attitudes Scale, an extensively recognized measurement tool for testing power evasion (i.e., denials of the existence of racism and racial inequality), to testify the degree of participants’ racial biases in expression and external perspectives [13]. The CoBRAS examined participants via 20 items/questions that contained a 6-point Likert scale to choose for each question. The 6-point rating scale ranged from 1 (strongly disagree) to 6 (strongly agree), referring to a gradual extent of espousal. The conception of CoBRAS was generated from Schofield’s and Frankenberg’s definition of color-blindness on racial attitudes and the concept of power evasion and color evasion, corresponding to the degree of denials on racism dynamics and the insistence of racial sameness [17,18]. Three factors were considered and categorized within the 20 questions: unawareness of racial privilege, unawareness of institutional discrimination, and unawareness of blatant racial issues. Higher observable scores on each factor or overall would demonstrate more significant levels of Color-Blind Racial Ideology, which entailed higher levels of white privilege, racial and gender intolerance, and racial discrimination [4,13].

Previous research has proved the validity and efficacy of CoBRAS in the measurement for Asians, despite subtle underestimation of nuance [4]. As a result, we decided to adopt this practical scale to examine whether Chinese international students conceptualize overt racial preferences against the Black race. After completion of the CoBRAS test, we collected participants’ raw data and classified them into three sub-scale scores and a total score, representing three factors and the total unawareness level. Since some questions were counted in reversed scores (e.g., 1=6, 2=5, 3=4, 4=3, 5=2, 6=1), we

recoded these items as “recode URP”, “recode UID”, and “recode UBRI” before further calculations. The explicit racial measurement was always placed in the following order after the implicit racial measure because extensive research had proven zero effect on the swapping sequences of explicit and implicit racial bias tests.

3. Result

3.1. Implicit Racial Biases

We used D scores to demonstrate whether participants presented a systematic implicit bias towards Black and Asian faces. The D score is one of the measures used to compute the difference between test categories in IAT. It is obtained by dividing the difference between means by the standard deviation of latencies in the two test blocks [12]. D score measures the strength and direction of an association where variability exists [12]. During calculations, the value obtained falls within a range from a negative number to a positive one, representing the association's strength and nature. A positive D score suggests a direct association between concepts, while a negative D score shows a reverse association. A zero D score indicates that bias does not exist. Thus, the D score can be used to determine direct, reverse, or no preference in the implicit association.

To explore whether the Chinese international students showed implicit racial preferences for Asian over Black faces, we conducted a one-sample t-test to compare the mean D score with zero (no bias). The analysis revealed that the mean D score was significantly greater ($M = .35$, $SD = .32$) than zero, $t(26) = 5.67$, $p < .001$, Cohen's $d = .32$, which represented implicit racial preferences for own-race Chinese faces over Black faces.

To further examine whether participants' gender, education, and current residence affect implicit racial biases, we performed 3 separate independent sample t tests. Results showed no significant effect on participants' gender, $t(25) = -.71$, $p = .482$, Cohen's $d = .33$, suggesting that male participants ($M = .40$, $SD = .38$) showed similar level of implicit racial bias as female participants ($M = .31$, $SD = .27$).

Similarly, no significant effect was found on education, $t(25) = -1.20$, $p = .242$, Cohen's $d = .32$, or current residence, $t(25) = -1.54$, $p = .135$, Cohen's $d = .32$. These results together demonstrated that gender, education, and country of residence had no influence on Chinese international students' implicit attitudes towards Black people.

3.2. Explicit Racial Biases

For explicit racial biases, we calculated sub-scores for three subscales: unawareness of racial privilege, unawareness of institutional discrimination, and unawareness of blatant racial issues, and a total score by averaging the three sub-scores.

To examine whether Chinese international students show explicit racial preferences for Asian over Black faces, we performed one-sample t-tests to compare the means of 3 subscale scores and the total score to the score of 3.5 (no bias). First of all, we found that the total mean score was significantly lower ($M = 3.02$, $SD = .50$) than the no-bias score, $t(25) = -4.90$, $p < .001$, Cohen's $d = .50$, indicating that Chinese international students showed minor levels of color-blindness in racial attitudes, racial discrimination, and higher levels of racial tolerance. Specifically, the analysis revealed that the mean scores of Unawareness of Institutional Discrimination ($M = 3.02$, $SD = .47$) and Unawareness of Blatant Racial Issues ($M = 2.47$, $SD = .81$) were all significantly smaller than 3.5, $t(25) = -5.20$, $p < .001$, Cohen's $d = .47$, and $t(25) = -6.42$, $p < .001$, Cohen's $d = .81$ respectively. Nevertheless, a notable exception is that although the mean score of Unawareness of Racial Privilege ($M = 3.49$, $SD = .72$) was less than 3.5, it presented no significance compared to 3.5, $t(25) = -0.18$, $p < .939$, Cohen's

$d = .72$. The ambivalent result possibly reflected students' less awareness of the objective White privilege against Black or other non-White races.

Table 1: Pearson correlation matrix for continuous variables (n = 27).

	Total mean CoBRAS	Mean D Score	Age	Black friends	Exposure to Blacks	Years living in N.A.
Total mean CoBRAS	1					
Mean D Score	-.13	1				
Age	.33	-.22	1			
Black friends	-.06	-.32	-.12	1		
Exposure to Blacks	-.05	.15	-.03	.32	1	
Years living in N.A.	-.08	-.11	.23	-.07	-.12	1

* $p < .05$; ** $p < .01$; *** $p < .001$

To test whether gender, education, and current residence significantly affect participants' explicit racial preferences, we conducted independent sample t-tests and found that males and females display similar levels of explicit racial biases, $t(24) = -.72, p = .478$, Cohen's $d = .50$. Similarly, no significant effects were found on education, $t(24) = -.75, p = .464$, Cohen's $d = .50$ or country of residence, $t(24) = .42, p = .681$, Cohen's $d = .51$.

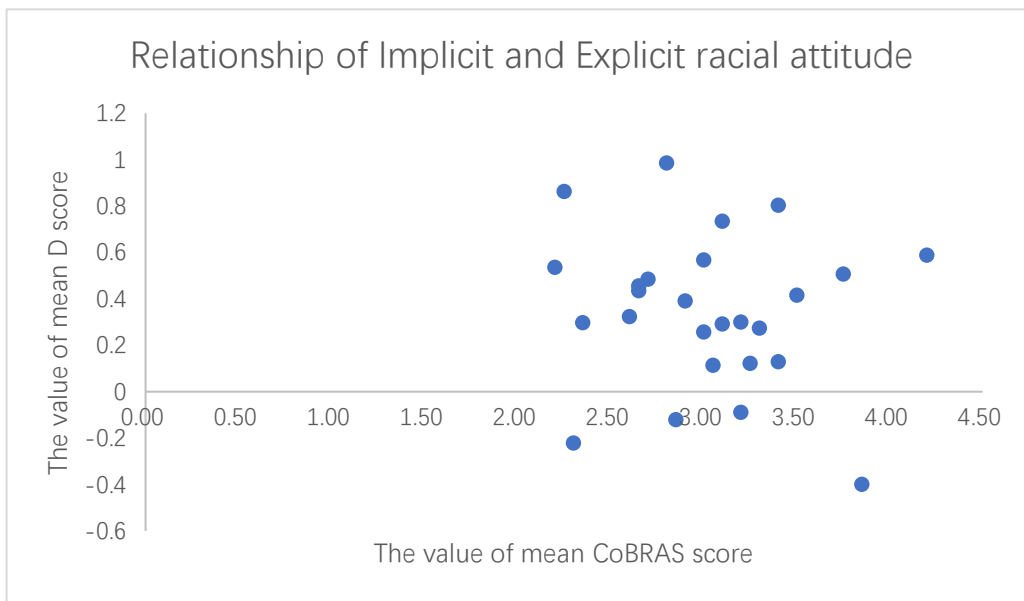


Figure 1: Scatter plot of the implicit-explicit racial attitudes relationship.

To further explore whether age, exposure to Black people, years living in North America, and numbers of Black friends would be correlated with participants' implicit (mean D score) or explicit

attitudes (total mean score of CoBRAS), we conducted a correlational analysis. According to the table 1, there were no significant correlations between implicit and explicit racial biases ($r = -.13$, $p = .538$) nor correlations among implicit racial bias, age, exposure to Black, years living in North America, and numbers of Black friends (all r s $< .15$, all p s $> .10$). Similarly, no correlation was found among explicit racial biases, exposure to Black, years living in North America, and numbers of Black friends (all p s $> .10$). Notably, the analyses interpreted that greater explicit racial bias was marginally correlated with older age ($r = .33$, $p = .095$).

4. Discussion

The present study examined Chinese international students' racial attitudes toward Black and Asian people. We measured their racial attitudes via explicit and implicit measurements. Overall, four main findings were obtained. First, Chinese international students displayed implicit racial preferences for Asian over Black people but not explicit racial preferences. Additionally, basic demographic information and students' contact with other race have no influence on the degree of implicit and explicit racial biases. Finally, no correlation was found between implicit and explicit racial biases. We discussed each of the finding below.

First, we found that Chinese international students displayed robust implicit racial biases in favor of Chinese people and against Black people, as measured by a Chinese-Black IAT [9]. The result is consistent with prior research conducted in Western and Eastern cultures, suggesting that implicit racial bias in favor of own-race and against other-race groups is manifested in both majority and minority groups [7,8,19,20]. Extensive Western research indicated that White people tend to show implicit racial preferences for their own races over other-race groups. For example, Baron and Banaji conducted an IAT measurement to test if European American young adults showed implicit positivity toward White over Black people [19]. The result demonstrated that the implicit racial preference of European Americans was manifested in favor of ingroup rather than outgroup races (see similar findings in [20-21]). Similarly, extensive studies also found the same patterns in Eastern cultures, suggesting that East Asians held strong implicit positivity for their own races relative to other races. For example, the result of Qian's research showed that Chinese adults displayed more positive tendencies of implicit racial biases for Chinese over Black races ([7], see similar findings in [8,22]). Also, Dunham and colleagues found that the degree of implicit racial preferences for intragroup races manifested by Japanese adults was greater than for outgroup races [23].

Similar results were also found in children. Previous findings conducted in western culture revealed that implicit racial preferences were present among White 6-year-old children. For instance, Baron and Banaji compared the implicit positivity of children aged 6 and 10 with adults [19]. The findings indicated indistinguishably significant implicit racial biases toward their own races over other races across different ages, revealing that individual implicit racial bias was shaped at a relatively early age and remained stable in terms of different races. Similarly, evidence from Eastern cultures replicated these findings suggesting that both children and adults displayed greater positivity towards their own-race group relative to the other-race group [7,8,22,23].

The early emergence of implicit racial bias, as well as the stable developmental trajectory, raise questions about the reasons why children and adults across different cultures consistently display similar patterns. One possible explanation is the rising racial conflicts globally and environmental inequality, which transmits negative racial beliefs and thoughts to individuals' minds [24-25]. As a result, these negative racial perspectives deteriorated subconscious racial discrimination, such as aversive racism and micro aggression. As Payne and colleagues argued, implicit racial bias is challenging to diminish because of stable social inequality and minorities being stigmatized by racial socialization [24-25]. For instance, media portrayal of Black and the promotion of "White as beauty"

can be negative influences to brainwash individuals and foster smooth perceptions subconsciously [26-28].

Besides the results of implicit racial bias, we also investigated the degree of explicit racial bias by using the Color-Blind Racial Attitudes Scale (CoBRAS) which measures the level of colorblindness, racial discrimination, and racial tolerance [13]. The result showed that students displayed a mild level of colorblindness and racial discrimination and a high level of racial tolerance. In other words, Chinese international students showed no explicit racial bias. Our findings are consistent with previous research utilizing distinctive explicit racial measurement, nevertheless contradicting prior studies which adopted CoBRAS to examine explicit racial bias. For example, Baron and Banaji used a self-reported preference method and found that White American adults did not show explicit racial biases ([19], see similar findings in [20,23]). However, other researchers suggest that explicit racial bias exists and that the level of such bias differs among people with distinct social identities. For example, Keum and colleagues found that first-generation Asian Americans possessed high unawareness of blatant racial issues [4]. The authors argued that the first-generation Asian Americans might have fewer chances to establish immersive relationships with people from other races in the U.S. society. In contrast, the present study targeted a group of Chinese international students who are different from Asian American population examined in [4]. Chinese international students may place themselves as “outsiders” and therefore perform different conceptions and extent of explicit racial bias in a more sensitive way.

Another main finding is the lack of correlation between implicit and explicit racial biases. The null correlation is consistent with some previous research, demonstrating that no clear relationship was measured between implicit and explicit racial biases [7,22,23]. One possible interpretation of the null correlation is that people tend to suppress their true thoughts and feelings toward racial discrimination, partly due to social desirability and impression management [9,12,20]. Another possible explanation is that the difference in test structures of both implicit and explicit racial measurements determines the underestimation of the correlation between the two types of racial biases [29]. Future research could increase the conceptual correspondence “structural fit” of the two measurements and examine the correlation between implicit and explicit biases. It is also likely that implicit and explicit racial biases are influenced by distinct factors, such as peer interaction and parent-child interaction. For example, implicit racial bias is influenced by nonverbal cues, such as eye contact and body posture. Explicit racial bias, however, is more affected by positive cross-race interaction [30-31].

Our results also found that contact with other-race groups did not affect implicit or explicit racial bias, which is inconsistent with previous work. Previous studies found that interracial contact has a tremendously positive influence on less racial bias over outgroup races. For instance, the findings of Rutland’s study indicated that Anglo-British children who reside in racially mixed areas showed less racial preference or discrimination over both ingroup and outgroup races [32]. Contradicting children in a racially mixed context, children who have predominant contact with less or no contact with outgroup ethnics displayed overt racial negativity over other races (see similar findings in [31,33]). One possible reason for the inconsistency could be that the groups of Chinese international students examined in the present study have relatively infrequent exposure to other races presented by participants. Supporting this argument, our data on contact measurement found that most students have no contact with black people, let alone Black friends. In other words, a large percentage of respondents scored near this lower limit in the contact questionnaire, which limited our capacity to examine the correlation between contact and racial biases.

Although our study contributed significantly to the existing literature on implicit and explicit racial attitudes, several limitations exist. First, our results were drawn from a relatively small sample size. Future research needs to examine the question in a larger sample. Second, the sample recruited was largely from a small range of age and education, which limits the generalizability of the findings.

Future studies should consider diversifying the age groups and academic levels, for example, examining students from children and adolescents to adults. Third, to test generalizability, it is crucial to compare racial attitudes towards different minority groups. The present study only examined attitudes towards one other-race group. Future work could further explore Chinese international students' racial attitudes toward White people. The cross-group comparison could inform the influences of social status on perceptions of racial bias.

In conclusion, we found that Chinese international students show implicit but not explicit positivity towards their own races relative to other races. Moreover, no correlation between implicit and explicit racial bias was found. Notably, the present study is the first to investigate whether Chinese international students possess biased racial attitudes towards interracial groups, informing the existing theory on implicit and explicit racial bias, as well as the practice of anti-bias efforts.

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