

# Monoracials' Perceptions of Biracials in Singapore

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**Objectives:** Drawing on social identity theory, present research examined the effects of overlapping racial membership on monoracials' categorization of biracials as in-/out-group members, as well as its impact on monoracials' social perceptions of biracials in Singapore. Within Singapore, it is hypothesized that biracials who share racial membership with monoracials would be rated more as monoracials' racial in-group and be evaluated more positively. Furthermore, monoracials' positive perceptions of biracials with (vs. without) shared racial membership would be less influenced by biracials' confrontation of racial prejudice. **Method:** Studies 1 ( $N = 242$ ) and 2 ( $N = 153$ ) sampled Chinese Singaporeans to assess their perceptions of several fictitious biracial targets. Utilizing an experimental confrontation paradigm, Studies 3 ( $N = 170$ ) and 4 ( $N = 225$ ) investigated the effects of confronting racial prejudice on Chinese Singaporeans' perceptions of biracials. **Results:** Studies 1 and 2 revealed that Chinese Singaporeans perceive Chinese–other (vs. non-Chinese) biracials as more racially similar to themselves and were more likely to report positive social perceptions of Chinese–other biracials. Compared to non-Chinese biracials, Studies 3 and 4 found that Chinese–other biracials' response to racial prejudice did not negatively affect Chinese Singaporeans' perception of them. Findings revealed that Chinese–other biracials were well-liked regardless of their response to racial prejudice, demonstrating Chinese Singaporeans' recognition of shared racial membership. Interestingly, Chinese Singaporeans increased their liking for Indian–Malay biracials when they confronted antimajority racial prejudice. **Conclusion:** Perceiving shared racial membership positively influenced Chinese Singaporeans' perceptions and feelings toward biracials. Theoretical and practical implications are discussed.

### Public Significance Statement

Research on biracial perceptions in the United States suggests that White Americans tend to sort White–other biracials as non-White out-groups. Present research investigates Chinese Singaporean's perception of biracials in Singapore and demonstrates how shared racial membership may positively influence monoracials' perception of biracials. Different from existing literature on monoracials' assessment of biracials, monoracial Chinese Singaporeans' positive perception and liking of Chinese–other biracials are significant and robust regardless of biracials' responses to antimajority/minority racial prejudice.

**Keywords:** biracial, racial membership, social identity theory, social perceptions, Singapore

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With rapid globalization and increasing rates of interracial union, the biracial population across the globe is projected to grow by up to 200% in the next 4 decades (Jozuka & Jones, 2020; Office for National Statistics, 2019; Tan, 2018; Vespa et al., 2020). Given their numerical majority within a society, monoracials tend to adopt the


role of gatekeepers of racial boundaries (Chen et al., 2019) and can selectively exclude biracials from their in-group based on the social status associated with specific racial membership within the society (A. K. Ho et al., 2011). The current literature has investigated monoracial's perception of biracials' under different premises (e.g.,

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racial passing, impression formation consequences; Albuja et al., 2018 and race shift; Wilton et al., 2018). While the literature is interested in understanding the negative outcomes of biracials when being cast as out-group members (Sanchez et al., 2020), little has been done to assess how shared racial membership may influence perceivers' in-group categorization of biracials, especially among non-White monoracials.

In this article, we examined Chinese Singaporeans' perception and feelings toward biracials to advance the understanding of monoracials' perception of biracials as well as the intergroup relations within Singapore, a multiracial country composed of Chinese, Indian, Malay, and others. Specifically, we examined if Chinese Singaporeans' attitudes toward and categorization of biracials would depend on perceived similarities in racial membership between monoracials and biracials. Furthermore, we investigated how monoracial perceivers' feeling toward biracials with (vs. without) shared racial membership would be influenced by biracials' confrontations of racial prejudice.

### **Existing Work on Biracial Research: A Hypodescent Hypothesis**

Biracials' association with two racial groups allow monoracials to include or exclude biracials as members of their in-group, depending on monoracials' social motives as well as the intergroup relations in the society. The founding work on biracials conducted in the United States has traditionally used White–Black biracial targets to present a strong contrast of superior and subordinate racial group membership (e.g., Chiao et al., 2006; Halberstadt et al., 2011). Hypodescent—the social categorization of biracials based on their subordinate racial group (Chen et al., 2018; Krosch et al., 2013)—is commonly used to explain why White–Black biracials are categorized as Black. Due to a long history of White and Black tension in the United States, as well as cognitive (Young et al., 2017) and social (Gaither et al., 2016; Leyens et al., 2001) motivations to categorize biracials as an out-group member, the application of hypodescent is still observable and widespread today (Young et al., 2013). For example, it is found that White monoracial perceivers higher on implicit prejudice against African Americans are more likely to categorize White–Black biracials as Black (Ho et al., 2013). This out-group categorization is often accompanied by negative evaluations (Roberts et al., 2020; Wilton et al., 2018). However, it is not clear whether the reported social motives, racial categorization, and related outcomes among White monoracials and Black–White biracials can be generalized to other racial groups. In fact, it is reported that White monoracial perceivers apply hypodescent principles more liberally with White–Black biracials compared to White–Asian biracials (A. K. Ho et al., 2011) possibly because Asians are often regarded as model minorities and of higher social status compared to Blacks in the United States (Chen et al., 2019; A. K. Ho et al., 2011). This has allowed White–Asian biracials to identify and be recognized as White with more ease than their White–Black counterpart (Chen et al., 2019).

Social identity theory posits that individuals will strive for positively valued social identities through different social memberships (Tajfel, 1970; Tajfel & Turner, 1986). By extension, individuals would display in-group bias toward others who share the same positively valued social identity (Tajfel, 1970; Tajfel & Turner, 1986). Hypodescent principles can be considered as an extreme

way of sorting racial group membership of biracials, which results in biracials' out-group membership. This leads to a decrease in positive social perceptions that may otherwise be afforded through shared racial membership (Mullen et al., 1992; Tajfel & Turner, 1986). It is plausible that the influence of shared racial membership between monoracials and biracials may be more salient in societies where hypodescent principle has not been reinforced by sociohistorical factors. If shared racial membership between monoracials and biracials would make a difference in monoracials' perception and categorization of biracials, how would monoracial perceivers deal with different types of biracials?

### **Singapore**

Drawing on social identity theory (Tajfel & Turner, 1986), the present research intends to examine social identity processes and the role of shared racial membership on monoracials' perceptions of biracials within Singapore. The racial makeup in Singapore can be described as a multiracial society. Individuals of Chinese descent constitute the ethnic majority (74%), while Malays (13.5%), Indians (9%), and other ethnic minorities (3.2%) make up the remaining ethnic minority groups (Department of Statistics Singapore, 2020). Singapore has practiced strict racial integration and harmony policies since the building stages of this country to create solidarity of a small country in order to defend external threats (Singapore Statutes Online, 1965). Holidays associated with each of the racial groups are officially recognized and celebrated, and overt discrimination based on race is a criminal offense in Singapore (Singapore Statutes Online, 1965). The vast majority of Singaporeans live in public housing units, where ethnic integration policies are enforced to create interethnic communities (L.-C. Ho, 2009). In conjunction with the high population density in Singapore, Singaporeans experience frequent interracial interactions in their everyday life (Mathews, 2013). Possibly driven by the top-down integration policies and frequent interracial interactions in Singapore, a 2018 report by the Institute of Policy Studies has shown that over 90% of Singaporeans perceived moderate to high levels of racial and religious harmony in Singapore (Mathews et al., 2019). The same report also indicated that interracial friendship networks have risen as Singaporeans are more likely to have a close friend of another race, reflecting a rise in both racial harmony and interracial interactions (Mathews et al., 2019). As interracial unions and the biracial population continue to grow (Tan, 2018), an investigation into monoracials' perception of biracials in Singapore is warranted.

### **Intergroup Perceptions**

Singapore is known for its considerably harmonious sociohistorical relations between racial majorities and minorities (Mathews, 2013; Mathews et al., 2019). These harmonious intergroup relations may reflect different perceptions and categorizations of biracials. First, Singapore recently placed 13th out of 78 countries in a racial equality world ranking (U.S. News, 2022), suggesting that monoracial Singaporeans may be more likely to attend to similarities between themselves and biracials. This attention to similarity (vs. differences) may lead monoracials to focus more on their shared racial membership, leading to more in-group categorization and perceptions of biracials who have shared racial membership with

them. Second, previous research on intergroup discrimination in Singapore has shown that Chinese Singaporeans are concerned with being racially fair-minded (Singh et al., 1998). Previous research found that although both Chinese and Malay Singaporeans displayed more positive attitudes toward their racial in-groups neither group engaged in out-group derogation (Hewstone & Ward, 1985; Singh et al., 1998, 2004). This may afford biracials to receive more positive social perceptions of their dual racial identity in Singapore.

The present article aims to explore whether shared racial membership can influence monoracials' attitudes toward biracial people in Singapore. As mentioned, past work has shown that monoracial Singaporeans display in-group biases but little to no out-group derogations when judging racial in-group and out-group members (Hewstone & Ward, 1985; Singh et al., 1998, 2004). It is possible, then, that monoracials' focus on racial in-group membership may come into play in their perception and judgment of biracial people. As biracial people may either share a racial group membership with monoracials or not (i.e., if they belong to two racial out-groups). Social identity theory and work on common group identity suggest that it is possible that monoracials may perceive a biracial person as more of their racial in-group if they share a group membership with the biracial individual and develop more positive social perceptions and attitudes toward them. Therefore, we predict that Chinese Singaporeans may perceive Chinese–other biracials as more of their racial in-group than those without shared racial membership, including minority monoracials and minority–minority biracials (Hypothesis 1 [H1]).

Consequently, shared racial membership may be more informant in guiding perceptions and attitudes of biracials among Chinese Singaporeans. Drawing upon in-group bias tendencies, we hypothesized that Chinese monoracials will form more positive social perceptions toward a Chinese–Malay compared to a complete racial out-group member (e.g., Malay or Indian–Malay; Hypothesis 2 [H2]) and rate them favorably on the stereotype content model (SCM; Fiske et al., 2002, 2007) on dimensions of warmth and competence which reflects perceived intent and ability, respectively.

### **Confrontation of Prejudice, Race Shift Effects, and the Role of Shared Racial Membership**

To further illustrate the role and influence of shared racial membership in Chinese Singaporeans' perception of biracials, we utilized racial prejudice confrontation as a research paradigm in this article (see Wilton et al., 2018). Research on the consequences of confronting racial prejudice in the United States has shown that White monoracials' perceptions of White–Black biracials are vulnerable and can be easily changed by biracials' racial attitudes. Wilton et al. (2018) showed that when White–Black biracials confront antiminority (i.e., Black) racial prejudice, White monoracial perceivers demonstrate a race shift—they shift in their perception of White–Black biracials' racial identity and perceived them to identify as more Black—thereby casting these biracials as an out-group member and perceive them to suffer from more racial discrimination and stigmatization. This again demonstrates the potential impact of hypodescent principle in the United States: White monoracials are inclined to categorize White–Black Americans to Black and this tendency can be easily activated by situational cues such as biracials' defense of their minority racial group.

Using the same paradigm, we investigate if Chinese Singaporeans display the same malleability in their perception and feelings of biracials with whom they share a racial membership. If Chinese Singaporeans perceive Chinese–other biracials as part of their racial in-group based on the shared racial membership, we expect that Chinese monoracials' perceptions of Chinese–other biracials would be more robust and less susceptible to biracials' actions (i.e., confrontation/passivity in the face of racial prejudice) for two reasons. First, Chinese Singaporeans may recognize and accept biracials' dual racial memberships. While monoracials recognize the duality of biracials' racial identity, the shared racial membership provides a solid foundation for monoracials to perceive and categorize biracials as in-group members, regardless of biracials' minority racial membership. Therefore, Chinese Singaporeans' perceptions of Chinese–other biracials will not be easily swayed by biracials' defense of their minority racial identity. Similarly, Chinese Singaporeans' in-group perceptions will also not be affected by Chinese–other biracials' actions of defending their shared majority racial identity as biracials' position as in-group members are secured in the eyes of monoracial perceivers. Second, given the fact that monoracial Singaporeans display in-group biases but little to no out-group derogations when judging racial in-group and out-group members due to the unique intergroup relations in Singapore (Hewstone & Ward, 1985; Singh et al., 1997, 2004), Chinese–other biracials' minority racial identification may not incur Chinese Singaporeans' out-group derogations. Therefore, if both Chinese–other biracials and minority monoracials confront antiminority racial prejudice, it is predicted that Chinese Singaporeans will perceive less race shift for Chinese–other biracials than minority individuals. The same trend will be observed as well when biracials confront antimajority racial prejudice as their in-group status is secured. In sum, Chinese Singaporean's attitude toward racial in-group (i.e., Chinese–Malay) will change less compared to their racial out-group (i.e., Malay/Indian–Malay), when they confront racial prejudice (Hypothesis 3 [H3]).

### **The Current Research**

To summarize, we predict that in Singapore, Chinese Singaporeans perceive Chinese–other biracials as more of their racial in-group than those without shared racial membership including minority monoracials and minority–minority biracials (H1). Consequently, Chinese Singaporeans will form more positive social perceptions toward a biracial with whom they share racial membership compared to a complete racial out-group member (H2). Positive social perceptions afforded by shared racial membership may therefore lead Chinese Singaporeans to exhibit less change in their feelings and perceptions when Chinese–other biracials—compared to racial out-group (i.e., Malay/Indian–Malay)—confront racial prejudice (H3).

Four studies examined the influence of shared racial membership on Chinese Singaporeans' perceptions of biracials. Study 1 examined Chinese Singaporean's perception of Chinese–other biracials and minority monoracials (H1). Study 2 further investigated Chinese Singaporeans' in-group and social perceptions of Chinese–other biracials and minority biracials (H2). Using a prejudice confrontation paradigm, the present research investigates the effects of shared racial membership on monoracials' perception of biracials when biracials' confront and defend antiminority and antimajority racial prejudice. Study 3 examined Chinese Singaporean's perceptions and feelings toward in-group biracials (vs.

monoracial out-group) when they confront antiminority racial prejudice (H3). Study 4 further examined Chinese Singaporeans' perceptions and feelings toward in-group and out-group biracials when they confront antimajority racial prejudice (H3). All studies obtained ethical approval from Singapore Management University's institutional review board. All study measures and manipulations are reported in the online Supplemental Materials (<https://osf.io/n5v69/>).

## Study 1

In Study 1, we examined Chinese Singaporean's perception of biracials. We hypothesized that shared racial membership (vs. hypodescent) would exhibit more influence on Chinese Singaporean's social perceptions of biracials and Chinese Singaporeans would categorize Chinese–other biracials (vs. minority monoracials) as their racial in-group (H1).

## Method

### Participants

Two hundred forty-four Chinese Singaporean undergraduate students ( $M_{\text{age}} = 21.90$ ,  $SD_{\text{age}} = 1.91$ ; 29.9% male, 69.3% female) were recruited to complete the study in exchange for credits. Two participants were excluded from the analyses due to incomplete responses resulting in a final sample of 242.

### Procedure

Participants were recruited as a part of a larger study investigating intergroup perceptions. Participants were asked to form impressions of one fictitious monoracial target (Chinese, Malay, or Indian) and one fictitious biracial target (Chinese–Malay or Chinese–Indian) based on a short paragraph providing some background information. Their racial information is embedded within the fictitious self-introduction. Presentation of the conditions was randomized and counter-balanced. After reviewing the information, participants assessed the fictitious target on our key dependent measure. Last, participants reported several demographic measures and were fully debriefed.

### Materials

**Inclusion of Others in Self.** Participants rated the degree to which they perceived a racial overlap between themselves and the target on the one-item pictorial inclusion of other in self scale (Aron et al., 1992). Ratings were made on a 7-point scale (1 = *no overlap between my race and target's race*, 7 = *overlap between my race and target's race*). Please see online Supplemental Materials, for pictorial representation.

## Results

### Monoracial Targets

We first conducted a one-way analysis of variance (ANOVA) to compare participants' perceived self-racial overlap with the monoracial targets (Chinese vs. Malay vs. Indian). The results indicated that there was a significant difference in Chinese Singaporean participants' perceived self-racial overlap with different targets,  $F(2, 239) =$

$72.36$ ,  $p < .001$ ,  $\eta_p^2 = .377$ . Participants perceived the most self-racial overlap with a Chinese target ( $M = 5.91$ ,  $SD = 1.72$ ), followed by an Indian ( $M = 3.15$ ,  $SD = 1.95$ ) and a Malay target ( $M = 2.73$ ,  $SD = 1.95$ ). Pairwise comparison revealed that participants' perceived self-racial overlap differed between Chinese and Indian targets,  $t(161) = 9.57$ ,  $p < .001$ ,  $d = 1.51$ , and between Chinese and Malay targets,  $t(158) = 11.44$ ,  $p < .001$ ,  $d = 1.81$ . Perceptions of perceived self-racial overlap did not differ for Indian and Malay targets,  $t(159) = 1.39$ ,  $p = .153$ ,  $d = 0.22$ .

### Biracial Targets

A  $t$  test was conducted to compare participants' perceived self-racial overlap with Chinese–Malay and Chinese–Indian biracial targets. A nonsignificant  $t$  test was found,  $t(170) = -0.72$ ,  $p = .476$ ,  $d = 1.39$ , indicating that participants did not differ in their perceived self-racial overlap with either Chinese–Malay ( $M = 4.59$ ,  $SD = 1.41$ ) or Chinese–Indian ( $M = 4.74$ ,  $SD = 1.36$ ) biracials.

### Monoracial Versus Biracials

As participants were randomly assigned to rate one monoracial and one biracial target, we conducted a paired sample  $t$  tests with a smaller sample to examine participants' perceived self-racial overlap with monoracial Chinese, monoracial minority, and biracial targets. The results from the paired sample  $t$  tests are summarized in Table 1. The results revealed that compared to Chinese–other biracials, Chinese Singaporeans perceived more self-racial overlap with monoracial Chinese targets,  $p < .001$  (Pair 1 and 2), displaying clear in-group perceptions toward monoracial Chinese targets. When we compared perceived self-racial overlap ratings for Indian monoracial targets and Chinese–other biracials, we also found a significant difference,  $p < .001$ ; however, participants perceived more self-racial overlap with Chinese–Malay ( $M = 4.55$ ,  $SD = 1.35$ ) and Chinese–Indian ( $M = 4.97$ ,  $SD = 1.67$ ) biracial compared to Indian monoracials (Pair 3,  $M = 2.76$ ,  $SD = 2.76$ ; Pair 4,  $M = 3.20$ ,  $SD = 2.06$ ). We found similar results comparing participants' perceived self-racial overlap of Chinese–Malay ( $M = 4.77$ ,  $SD = 1.27$ ) and Chinese–Indian ( $M = 4.93$ ,  $SD = 1.16$ ) biracial with Malay monoracial targets (Pair 5,  $M = 2.41$ ,  $SD = 1.53$ ; Pair 6,  $M = 2.59$ ,  $SD = 1.94$ ),  $p < .001$ . Together, these results support H1.

## Discussion

As predicted, the results from Study 1 indicate that Chinese Singaporeans perceived the greatest racial overlap between themselves and other monoracial Chinese targets. More importantly, Chinese Singaporeans perceived more self-racial overlap between themselves and the Chinese–other biracial targets compared to the out-group monoracial targets, supporting H1. Put another way, along a continuum of racial sharedness, Chinese Singaporeans seem to place Chinese biracials as somewhere in between Chinese monoracials (who share the most overlap with themselves) and non-Chinese monoracials (who share the least overlap). Chinese Singaporeans perceive a fairly high degree of racial overlap with biracials who share the same racial membership compared to a complete racial out-group member. This finding stands in contrast to extant research demonstrating a tendency for monoracials to perceive biracials as a subordinate out-group (i.e., hypodescent), suggesting



**Table 1***Paired Sample t-Test Results Comparing Chinese Singaporeans' Perceived Self-Racial Overlap Between Monoracial and Biracial Targets*

| Monoracial target | <i>M</i> | <i>SD</i> | Biracial target | <i>M</i> | <i>SD</i> | <i>N</i> | <i>t</i> | <i>df</i> | <i>p</i> | 95% confidence interval |             |
|-------------------|----------|-----------|-----------------|----------|-----------|----------|----------|-----------|----------|-------------------------|-------------|
|                   |          |           |                 |          |           |          |          |           |          | Lower bound             | Upper bound |
| 1. Chinese        | 6.19     | 1.52      | Chinese–Malay   | 4.52     | 1.59      | 31       | 4.78     | 30        | <.001    | 0.96                    | 2.39        |
| 2. Chinese        | 6.04     | 1.53      | Chinese–Indian  | 4.30     | 1.10      | 27       | 6.71     | 26        | <.001    | 1.21                    | 2.27        |
| 3. Indian         | 2.76     | 2.76      | Chinese–Malay   | 4.55     | 1.35      | 33       | –6.87    | 32        | <.001    | –2.32                   | –1.26       |
| 4. Indian         | 3.20     | 2.06      | Chinese–Indian  | 4.97     | 1.67      | 30       | –4.65    | 29        | <.001    | –2.54                   | –0.99       |
| 5. Malay          | 2.41     | 1.53      | Chinese–Malay   | 4.77     | 1.27      | 22       | –6.11    | 21        | <.001    | –3.17                   | –1.56       |
| 6. Malay          | 2.59     | 1.94      | Chinese–Indian  | 4.93     | 1.16      | 29       | –6.47    | 28        | <.001    | –3.09                   | –1.60       |

that the hypodescent principle may benefit from a more nuanced interpretation. Specifically, even while monoracials may regard same-race biracials as members of the subordinate group, a shared racial membership can attenuate the hypodescent effect and confer upon biracials some degree of in-group status.

As Study 1 only examined Chinese Singaporeans' differing perceptions of Chinese–other biracials and other monoracial targets, it is limited in its understanding on Chinese Singaporeans' perception of other double out-group biracials with whom they share no racial membership at all (e.g., Indian–Malay biracial). Study 2 aimed to further investigate Chinese Singaporeans' perception of different types of biracials and probe if shared racial membership will lead Chinese Singaporeans to evaluate Chinese–other biracials with more positive social qualities due to in-group perceptions.

## Study 2

Much research has documented that people tend to view in-group (vs. out-group) members more favorably and rate them more highly on various positive traits (e.g., intelligence, warmth; Bagci et al., 2023; Crocker & Luhtanen, 1990). If shared racial membership indicates one's in-group status, we should see differences in how Chinese biracials (who share some racial membership) and non-Chinese biracials (who share no racial membership) are perceived on these traits. Specifically, for Chinese Singaporean perceivers, Chinese biracial targets should also be perceived more favorably on positive stereotypes (H2). In Study 2, we examined whether Chinese Singaporeans' perception of a Chinese–Malay (majority–minority) biracials and an Indian–Malay (minority–minority) biracial target. Additionally, we investigate if these perceptions are driven by hypodescent.

## Method

### Participants

One hundred fifty-three Chinese Singaporean undergraduates ( $M_{\text{age}} = 22.43$ ,  $SD = 1.98$ ; 24.8% male) completed the study in exchange for cash remuneration (SGD \$5~USD \$3.60). Non-Chinese ( $n = 35$ ) and non-Singaporean citizens ( $n = 15$ ) were excluded from the analyses. A post hoc power analysis using G\*Power (Faul et al., 2007, 2009) revealed that the statistical power to detect moderate effect size ( $f^2 = .25$ ) was more than adequate, .98.

### Procedure

Participants were recruited to complete an online study. They were asked to form impressions of one fictitious target student (Chinese–

Malay or Indian–Malay biracial) based on a short paragraph providing several background information,<sup>1</sup> which included their biracial background as the race manipulation. In the Chinese–Malay (vs. Indian–Malay) condition, the target circled both Chinese (vs. Indian) and Malay race options. We also included a photograph of the target alongside the background information presented. The photographs (Righi et al., 2012)<sup>2</sup> presented were a 50%–50% morph<sup>3</sup> of a phenotypically Chinese–Malay or Indian–Malay face. Presentation of the target and background information was randomized. After reviewing the information, participants assessed the target on all dependent measures and completed a short manipulation check. Last, participants reported background demographic information and were fully debriefed. All materials are detailed in the online Supplemental Materials.

## Materials

**Hypodescent.** Participants reported their social categorization of biracial targets on a five-item hypodescent scale (A. K. Ho et al., 2017). All ratings were made on a 7-point scale (1 = *relatively Chinese [Indian]*, 4 = *equally Chinese [Indian] and Malay*, 7 = *relatively Malay*).

**Stereotype Content Model.** In line with the SCM (Fiske et al., 2002), participants rated targets on the dimensions of warmth and competence on a 5-point scale (1 = *not at all*, 5 = *extremely*). Participants were asked, “As viewed by society, how ... are members of this group?” To assess warmth, the participants responded to the following items: tolerant, warm, good-natured, and sincere. The items on the competence dimension included: competent, confident, capable, and skillful. These two dimensions are commonly used to evaluate interpersonal or intergroup perceptions in which high warmth indicates friendliness as well as low threat and high on competence indicates high status. Ingroups tend to be perceived as high on both warmth and competence based on high desirability of these two tendencies (Fiske et al., 2002).

**Self-Reported Racial Identification.** Participants made ratings regarding their self-reported racial identification on a one-item 7-point scale (1 = *not at all*, 7 = *identify strongly*). Descriptive statistics, correlations, and reliability estimates are presented in Table 2.

<sup>1</sup> Materials on different biracials in Study 1 were adapted from Wilton et al. (2018).

<sup>2</sup> Stimulus images courtesy of Michael J. Tarr, Center for the Neural Basis of Cognition and Department of Psychology, Carnegie Mellon University, <http://www.tarrlab.org/>.

<sup>3</sup> Morphing procedures are detailed in the online Supplemental Materials.

**Table 2**  
Means, Standard Deviations, Reliability, and Correlation Matrix for Outcome Variables in Study 2

| Variable                 | <i>M</i> | <i>SD</i> | 1           | 2    | 3    | 4          | 5          | 6     |
|--------------------------|----------|-----------|-------------|------|------|------------|------------|-------|
| 1. Gender                | 1.75     | 0.43      | —           |      |      |            |            |       |
| 2. Age                   | 22.43    | 1.98      | <b>-.44</b> | —    |      |            |            |       |
| 3. Racial identification | 5.78     | 1.14      | <b>.17</b>  | -.06 | —    |            |            |       |
| 4. Hypodescent           | 3.83     | 0.65      | -.03        | -.03 | .09  | (.84)      |            |       |
| 5. Warmth                | 3.50     | 0.72      | -.02        | .01  | -.07 | <b>.20</b> | (.89)      |       |
| 6. Competence            | 3.25     | 0.65      | -.03        | .09  | .06  | <b>.21</b> | <b>.64</b> | (.88) |

Note. Gender is coded as male = 1, female = 2. Cronbach's  $\alpha$ s are presented in parentheses in the diagonal. Significant results are marked in boldface,  $p < .05$ .

## Results

### Preliminary Analyses

All variables were normally distributed (skewness < 1.0). To ensure that the use of different biracial targets on the hypodescent scale was comparable, we compared participants' ratings on our key variables for both targets. Results revealed that monoracial perceivers did not differ their hypodescent ratings for different biracial targets ( $M_{\text{chinese-malay}} = 3.94$ ,  $M_{\text{indian-malay}} = 3.74$ ),  $p = .056$ .<sup>4</sup>

In line with A. K. Ho et al.'s (2017) procedure, we compared hypodescent ratings for different biracial targets to the scale midpoint of 4. We found a nonsignificant difference between perceivers hypodescent rating for Chinese–Malay targets ( $M = 3.94$ ,  $SD = 0.51$ ) to the scale midpoint,  $t(68) = -0.94$ ,  $p = .353$ ,  $d = -.11$ .<sup>5</sup> Our preliminary analyses suggest that Chinese Singaporeans are less inclined to use hypodescent to categorize biracials who share the same racial membership.

### Main Analyses

First, we examined how Chinese Singaporeans' differed in their (positive) evaluations of different biracial targets. An independent samples  $t$  test with biracial target as independent variable and SCM warmth as dependent variable revealed a significant difference in perceivers' SCM warmth for different biracials,  $t(151) = 2.48$ ,  $p = .014$ ,  $d = .403$ . Chinese–Malay ( $M = 3.65$ ,  $SD = 0.67$ ) biracial targets were more warmly perceived compared to Indian–Malay ( $M = 3.37$ ,  $SD = 0.74$ ) biracial targets. In sum, Chinese monoracials possess more positive social perceptions of Chinese–Malay biracials than Indian–Malay biracial targets, supporting H2.

When SCM competence was entered as an outcome variable, the results revealed a nonsignificant difference between perceivers' SCM competence for different biracials,  $t(151) = 1.47$ ,  $p = .144$ ,  $d = .238$ . This result did not support H2.

## Discussion

The results from Study 2 showed that biracials with shared racial membership were perceived by Chinese Singaporeans as having more warmth. This also demonstrated our speculations that Chinese Singaporeans are less inclined to use hypodescent. Instead, Chinese Singaporeans report more positive social perceptions of Chinese–other biracials, supporting H2. This indicates that monoracial perceivers display an in-group bias tendency for biracials who share the same racial membership.

It is noteworthy that perceivers did not differ in their perceived competence of the two biracial targets presented to them. According to Fiske (2015), the dimension of warmth reflects perceived intent of the target and competence reflects perceived ability to enact on that intent. Accordingly, perceivers may require more information and time beyond what was presented to them in this study to determine the target's competence as it is secondary to perceived warmth (see Fiske, 2015; Fiske et al., 2002). In short, the findings of Study 2 generally supported monoracial Chinese's positive social perceptions Chinese–other biracials in comparison to minority biracials, possibly afforded by racial in-group bias tendency.

## Study 3

Studies 1 and 2 affirmed our reasoning that shared racial membership might underlie Chinese Singaporeans' perceptions of Chinese–other biracials as being part of their in-group and, consequently, lead to more positive social perceptions of these targets. Here, we intend to investigate the stability of Chinese monoracials' in-group and social perceptions of Chinese–other biracials with the confrontation paradigm. Previous studies have shown that when White–Black biracials confront antiminority racial prejudice, White monoracial perceivers exhibit a race shift: they are more likely to categorize them as part of the racial minority group and perceive them as racial out-group (Wilton et al., 2018). In Study 3, we utilize the same experimental paradigm as Wilton et al. (2018, Study 1), to investigate the role of shared racial membership on Chinese Singaporeans' perceptions and feelings toward a biracial in-group (i.e., Chinese–Malay) compared to a monoracial out-group (i.e., Malay) when biracials confront antiminority racial prejudice (i.e., Malay).

It is predicted that Chinese Singaporeans would demonstrate less race shift for biracials with shared racial membership than for minority individuals. While biracials' confrontation of antiminority prejudice may increase monoracial perceivers' salience of biracials' minority

<sup>4</sup> Preliminary analyses result for Study 1b are reported in the online Supplemental Materials.

<sup>5</sup> On the contrary, we found a significant difference between perceivers' hypodescent rating for Indian–Malay targets ( $M = 3.74$ ,  $SD = 0.73$ ) to the scale midpoint,  $t(83) = -3.24$ ,  $p = .002$ ,  $d = -.354$ . This suggests that Chinese perceivers perceived Indian–Malay targets as more Indian. However, as both Indian and Malay anchors on the hypodescent scale were both out-group monoracial anchors, the results may not reflect hypodescent. It is also unclear if perceivers consider Indians as socially subordinate to Malays. Instead, it is indicative of Chinese Monoracials' out-group categorization of Indian–Malay biracials.

race identity leading to race shift in perception, we predict that the shared racial membership between Chinese monoracials and Chinese–other biracials may trump the salience of biracials' out-group affiliation, leading to less changes in perceivers' perception and attitude toward an in-group biracial compared to an out-group monoracial. As a result, Chinese monoracials' attitude toward racial in-group members (i.e., Chinese–Malay) will change less compared to their racial out-group (i.e., Malay/Indian–Malay), when they confront racial prejudice (H3) because their status as an in-group member is secure.

## Method

### Participants

Following Wilton et al.'s (2018) suggested sample size of 128 participants, we recruited 175 Chinese Singaporean undergraduates ( $M_{\text{age}} = 21.25$ ,  $SD_{\text{age}} = 1.91$ ; 24.1% male, 75.9% female) to complete this study in exchange for course credits. One non-Chinese participant was excluded. Four participants were excluded due to incomplete responses ( $n = 2$ ) and for failing to pass a manipulation check ( $n = 2$ ), resulting in a final sample of 170.

### Procedure

Participants were recruited to complete an online study in a local university in exchange for course credits or cash remuneration (SGD \$5–USD \$3.60). We followed the experimental procedure of the first study presented in Wilton et al. (2018). Participants were asked to review and form impressions of a fictitious student from another local university based on some short background information and a personal essay. Study 2 employed a 2 (race condition: Malay vs. Chinese–Malay)  $\times$  2 (response condition: confront vs. passive) between-subjects design. Participants were randomly assigned to one of the four conditions (see online Supplemental Materials). Participants reviewed a short background information sheet and personal essay of a student. Across all conditions, the student was described as a 21-year-old male named Will. We experimentally manipulated the race of the target and confrontation response in the information presented. In the Malay (vs. Chinese–Malay) condition, the target circled Malay (vs. Chinese and Malay) race options on the background information sheet. In the student's personal essay, the student described a situation in which an acquaintance made several overtly racist comments<sup>6</sup> against Malays at a party. In all conditions, the race of the acquaintance (Malay) making the racist comment was kept constant and the student identified the comments as racist and disagreed with the comment (see online Supplemental Materials, for vignette details). The student either reported confronting the biased statement (confront condition) or remained silent despite disagreeing with the biased statement (passive condition). After reviewing the information presented, participants completed a short manipulation check to ensure that they correctly remember the target's race and gender before evaluating the target on all dependent measures. Last, participants provided some demographic information before they were fully debriefed.

### Materials

All ratings were made on a 7-point scale (1 = *not at all*, 7 = *extremely likely*). All descriptive statistics, correlations, and reliability estimates are presented in Table 3.<sup>7</sup>

**Table 3**

*Means, Standard Deviations, Reliability, and Correlation Matrix for Outcome Variables in Study 3*

| Variable                          | <i>M</i> | <i>SD</i> | 1           | 2    | 3          | 4     |
|-----------------------------------|----------|-----------|-------------|------|------------|-------|
| 1. Gender                         | 1.76     | 0.43      | —           |      |            |       |
| 2. Age                            | 21.25    | 1.91      | <b>-.55</b> | —    |            |       |
| 3. Perceived Malay identification | 5.72     | 1.00      | -.01        | .05  | (.94)      |       |
| 4. Liking                         | 5.15     | 1.11      | .10         | -.08 | <b>.27</b> | (.93) |

*Note.* Gender is coded as male = 1, female = 2. Cronbach's  $\alpha$ s are presented in the parentheses in the diagonal. Significant results are marked in boldface,  $p < .05$ .

**Perceived Malay Identification.** Participants reported the extent to which they viewed the target as identifying with his Malay identity on three items ( $\alpha = .935$ ). A sample item includes “How strongly do you think the author identifies with being Malay?”

**Liking.** Last, participants reported the extent to which they liked the target through their responses to three questions using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*): “I like the author,” “I would like to be friends with the author,” and “I think I would be able to get along well with the author.”

## Results

### Perceived Malay Identification

To examine if race (Malay vs. Chinese–Malay) and confrontation (confront vs. passive) influenced Chinese Singaporean's perceptions (H3), we conducted a two-way ANOVA with perceived Malay identification as the outcome variable. We found a significant main effect of confrontation condition (0 = confront, 1 = passive) on perceived Malay identification,  $F(1, 161) = 12.29$ ,  $p < .001$ ,  $\eta_p^2 = .071$ . Participants perceived the student who confronted racial prejudice to identify more as a Malay ( $M = 6.05$ ,  $SD = 0.86$ ) compared to the student who remained passive ( $M = 5.51$ ,  $SD = 1.01$ ),  $t(163) = 3.57$ ,  $p < .001$ ,  $d = .567$ . The main effect of race condition on perceived Malay identification,  $F(1, 161) = 3.78$ ,  $p = .053$ ,  $\eta_p^2 = .023$ , and the interaction between confrontation and race condition,  $F(1, 161) = 0.27$ ,  $p = .603$ ,  $\eta_p^2 = .002$ , was also found to be nonsignificant. Thus, regardless of the target's race, the act of confronting racial prejudice influenced Chinese Singaporean's perception of the target's perceived Malay identification.

### Liking

Next, to examine if race (Malay vs. Chinese–Malay) and confrontation (confront vs. passive) influenced Chinese Singaporeans' expressed liking for the targets, we conducted a two-way ANOVA with liking as the outcome variable. The results revealed a nonsignificant main effect of confrontation condition,  $F(1, 161) = 0.06$ ,  $p = .808$ ,  $\eta_p^2 = .000$ , and race condition,  $F(1, 161) = 0.63$ ,  $p = .430$ ,  $\eta_p^2 = .004$ , on liking. The interaction effect between confrontation and

<sup>6</sup> Racial stereotypes for different racial groups were piloted to identify unique stereotypes associated with different racial groups in Singapore.

<sup>7</sup> Measures of perceived stigmatization and perceived racial stereotypicality were also collected as per Wilton et al.'s (2018, Study 1) procedure. The results are included in the online Supplemental Materials.

race condition was similarly nonsignificant,  $F(1, 161) = 2.48, p = .117, \eta_p^2 = .015$ .

While the ANOVA results were nonsignificant, we conducted two separate regression analyses to further examine the impact of shared racial membership on Chinese Singaporeans' perception and feelings for the target. More specifically, we examined the relations between perceived Malay identification (predictor) and liking (outcome) for the Malay and Chinese–Malay target independently. Correlations are presented in Table 4.

The results revealed a significant relation between perceived Malay identification ( $M = 5.21, SD = 1.10$ ) and liking ( $M = 5.86, SD = 0.98$ ) for participants who viewed the Malay race condition,  $F(1, 94) = 8.70, p = .004, B = 0.29, SE = 0.11$ . However, the results revealed a nonsignificant relation between perceived Malay identification ( $M = 5.54, SD = 0.99$ ) and liking ( $M = 5.12, SD = 1.11$ ) for participants who viewed the Chinese–Malay condition.  $F(1, 72) = 1.71, p = .195, B = 0.15, SE = 0.13$ .

Chinese perceivers' liking for the Malay target ( $M = 5.86, SD = 0.98$ ) did not differ from their expressed liking for Chinese–Malay targets ( $M = 5.12, SD = 1.11$ ),  $t(168) = 0.55, p = .581, d = .09$ . The findings here suggest that Chinese Singaporeans exhibit more change in their perception and feelings toward racial out-group (Malay) in response to race shift compared to a racial in-group (Chinese–Malay) biracial, providing indirect support for H3.

## Discussion

Using the confrontation paradigm, we found that like Wilton et al.'s (2018, Study 1) findings, Chinese Singaporeans perceived both the Malay and Chinese–Malay targets to identify as more Malay (i.e., the subordinate out-group) when the target seemingly confronted antiminority racial prejudice. This act of confrontation in defense of their Malay identity may signal that an individual identifies strongly with being a minority, strengthening the salience of this identification to perceivers. However, unlike in Wilton et al. (2018), we found neither the main effect of race nor an interaction between race and confrontation on targets' Malay identification, suggesting that Chinese Singaporeans differ from White Americans in important ways, in terms of their racial perceptions of monoracials and biracials. This indicates that even when Chinese–Malay biracials display weak ties to Chinese Singaporeans' in-group, they may still be regarded positively.

Next, neither the main effects of confrontation and race nor their interaction between confrontation and race condition influenced Chinese Singaporean's liking for the targets. The findings here

appear incongruent with our hypotheses that Chinese Singaporeans are more likely to categorize in-group biracials as part of their racial in-group (H1, Study 1) and therefore perceive them more positively (H2, Study 2). Nonetheless, previous literature on Singaporean's interracial relations suggests that Chinese Singaporeans display in-group tendencies but no out-group derogation (Hewstone & Ward, 1985; Singh et al., 1998, 2004). Hence, Chinese–Malay biracials' defense of their minority racial group may not lead to significant changes or more dislike in Chinese Singaporeans' perception and feelings of Chinese–Malay biracials, evidenced by null relation between the reported perceived Malay identification and liking for Chinese–Malay biracials (Table 4).

Nonetheless, independent analyses of the relationship between perceived Malay identification and perceivers' self-reported liking for both targets revealed a positive and significant (vs. null) relation for Malay (vs. Chinese–Malay) targets. The results here provide indirect support for our speculation that Chinese Singaporeans exhibit less change in expressed liking toward racial in-group (Chinese–Malay) compared to racial out-groups (Malay) when they confront racial prejudice (H3). This again provides evidence for Chinese–Singaporeans' positive social perceptions of Chinese–other biracials.

Although the positive relations between perceived Malay identification and liking for the Malay target may similarly appear to counter our hypotheses, the results indicate that Chinese Singaporeans perceived targets who confronted racial prejudice to identify as more Malay but only expressed more liking—to the same level as a racial in-group member—for them. While these findings are preliminary, it suggests that the relationship between Chinese Singaporeans and Chinese–other biracials in Singapore is different from the existing literature on biracial intergroup relations.

While our findings are in some ways consistent with H3, we are cautious of making conclusions with null effects. Specifically, the comparison was made between two groups (Chinese–Malay vs. Malay) when the likelihood of perceived race shift and feelings toward a Malay target is minimum. We wondered if the race shift and changes in feelings may be more pronounced if both targets were biracials but only one group has shared racial membership with Chinese Singaporeans. Furthermore, when research showed that Chinese Singaporeans exhibit bias toward Chinese in-group but express low out-group derogation toward racial out-groups (Hewstone & Ward, 1985; Singh et al., 1998, 2004), we suspected that Chinese Singaporeans may demonstrate less race shift in perceptions and feelings when Chinese–other (vs. minority–minority) biracial confront racial prejudice. Therefore, to test this line of reasoning, Study 4, we continue to examine the malleability of perceivers' perceptions and feelings toward Chinese–other biracials versus minority–minority biracials who confront antimajority racial prejudice to further examine H3.

**Table 4**  
*Means, Standard Deviations, and Correlation Matrix for Outcome Variables by Race Condition*

| Variable                          | Target   |           |            |               |           |     |
|-----------------------------------|----------|-----------|------------|---------------|-----------|-----|
|                                   | Malay    |           |            | Chinese–Malay |           |     |
|                                   | <i>M</i> | <i>SD</i> | 1          | <i>M</i>      | <i>SD</i> | 1   |
| 1. Perceived Malay identification | 5.86     | 0.99      | —          | 5.54          | 0.99      | —   |
| 2. Liking                         | 5.21     | 1.10      | <b>.29</b> | 5.12          | 1.11      | .15 |

Note. Significant results are marked in boldface,  $p < .05$ .

## Study 4

In Study 4, we continue to probe Chinese Singaporean's perception and feelings toward biracials who share the same racial membership. We adapted Wilton et al. (2018) experimental paradigm to further probe Chinese Singaporean's perception of biracials. Consistent with a race shift effect, Chinese Singaporeans in Study 3 perceived Chinese–Malay biracials who confronted antiminority (i.e., anti-Malay) prejudice as identifying more with their Malay



identity. In Study 4, we extend this investigation to examine if biracials' explicit defense of the majority may influence perceivers' perception and categorization of biracials. In particular, we tweaked the experimental paradigm from one that focused on biracial targets' confrontation of antiminority prejudice to one that focused on biracial targets' confrontation of antimajority (i.e., anti-Chinese) confrontation. Previous research on prejudice confrontation has suggested that the act of confronting racial prejudice is often evaluated negatively by others (Czopp & Monteith, 2003; Dodd et al., 2001). However, given the fact that the act of confronting racial prejudice is to defend Chinese monoracials' in-group, the act of confronting racial prejudice may be evaluated positively instead of negatively by perceivers.

We hypothesize that possibly driven by shared racial membership that warrants Chinese monoracials' perceptions of Chinese–other biracials, Chinese Singaporeans will exhibit less change in their feelings and attitudes toward racial in-group (Chinese–Malay) compared to racial out-group (Indian–Malay; H3), attenuating the effects associated with the act of confronting racial prejudice. It is hypothesized that the positive perceptions of the targets via shared racial membership would override the effects of Chinese–Malay's passivity. In comparison, Indian–Malay will be perceived as more likeable when they confront prejudice toward Chinese, the perceivers' own racial group.

## Method

### Participants

We recruited 232 undergraduate Chinese Singaporeans to participate in Study 4. Participants completed the study in exchange for cash remuneration (SGD \$5~USD \$3.60). Seven participants were excluded as two failed to complete the study and five were non-Singaporean. This leaves a final sample of 225 participants ( $M_{\text{age}} = 22.09$ ,  $SD = 1.77$ ; 27.6% male). A post hoc power analysis using G\*Power (Faul et al., 2007, 2009) revealed that the statistical power for this study to detect a medium effect size ( $f^2 = .35$ ) was more than adequate, .97.

### Procedure

Participants were recruited to complete an online study in a local university in exchange for course credits or cash remuneration. We adapted Wilton et al.'s (2018; see Study 1) procedure and study materials. Participants were asked to review and form impressions of a fictitious student from another local university based on some short background information and a personal essay. Study 4 adopted a 2 (race condition: Chinese–Malay vs. Indian–Malay)  $\times$  2 (response condition: confront vs. passive) between-subjects design. Participants were randomly assigned to one of four conditions.

Across all conditions, the student was described as a 21-year-old male named Will. We experimentally manipulated the race of the target and confrontation response using the same race manipulation and photograph from Study 2. In the student's personal essay, he described a situation in which an acquaintance made several overtly racist comments against Chinese (See Footnote 6) at a party. In all conditions, the race of the acquaintance (Malay) making the racist comment was kept constant and the student identified the comments as racist and disagreed with the comment. However, the student

either reported confronting the biased statement (confront condition) or remained silent despite disagreeing with the biased statement (passive condition). All manipulation and materials are reported in the online Supplemental Materials. After reviewing the information, participants assessed the target on all dependent measures.

### Materials

We adapted Wilton et al. (2018) measures as well as liking to assess monoracial Chinese's liking of the biracial target. All descriptive statistics, correlations, and reliability estimates are presented in Table 5.

**Perceived Malay Identification.** Perceived Malay identification was assessed to indicate race shift. Although the confrontation manipulation was against Chinese prejudice in this study, perceived Malay identification was assessed to capture race shift for two reasons: (a) It applies to both target groups and (b) potential race shift on perceived Chinese identification may reduce perceived Malay identification, especially for biracial target. To assess perceived Malay identification, we used the same measures employed in Study 3.

**Liking.** To assess liking, we used the same measures employed in Study 3.

## Results

To examine whether confronting racism affected monoracial Chinese Singaporeans' perceptions of the biracial target, ANOVAs were conducted separately with race and confrontation condition as the between-subjects factors, with different measures as our dependent variables.

### Perceived Malay Identification

Perceived Malay identification as the dependent variable was analyzed in our first ANOVA model. A significant main effect of race was found,  $F(1, 221) = 8.08$ ,  $p = .005$ ,  $\eta_p^2 = .035$  and pairwise comparison indicated that Indian–Malay target ( $M = 4.52$ ,  $SD = 1.33$ ) was perceived to identify as more Malay compared to the Chinese–Malay target ( $M = 4.03$ ,  $SD = 1.20$ ),  $t(223) = 2.89$ ,  $p = .005$ ,  $d = 0.39$ . The main effect of response and the interaction between race and responses was not significant,  $p > .05$ .

**Table 5**

*Means, Standard Deviations, Reliability, and Correlation Matrix for Outcome Variables in Study 4*

| Variable                          | <i>M</i> | <i>SD</i> | 1    | 2   | 3     | 4     |
|-----------------------------------|----------|-----------|------|-----|-------|-------|
| 1. Gender                         | 1.72     | 0.45      | —    |     |       |       |
| 2. Age                            | 22.09    | 1.77      | -.57 | —   |       |       |
| 3. Perceived Malay identification | 4.29     | 1.29      | .01  | .01 | (.95) |       |
| 4. Liking                         | 4.64     | 1.18      | .04  | .03 | .10   | (.94) |

*Note.* Gender is coded as male = 1, female = 2. Cronbach's  $\alpha$ s are presented in the parentheses in the diagonal. Significant results are marked in boldface,  $p < .05$ .

## Liking

Liking was included as the outcome variable in a two-way ANOVA. A significant main effect of race was found,  $F(1, 221) = 4.54, p = .034, \eta_p^2 = .020$ . Chinese perceivers expressed more liking for the Chinese–Malay ( $M = 4.80, SD = 1.08$ ) compared to the Indian–Malay ( $M = 4.48, SD = 1.25$ ), biracial target supporting our racial in-group hypothesis (H2 and H3). Beyond our predictions, there was a significant main effect of response on liking,  $F(1, 221) = 6.02, p = .015, \eta_p^2 = .027$ . Biracial targets who reported confronting racial prejudice ( $M = 4.82, SD = 1.11$ ) were more well-liked compared to those who remained passive in the face of racial prejudice ( $M = 4.44, SD = 1.22$ ). This effect was qualified by a significant two-way interaction,  $F(1, 221) = 6.88, p = .009, \eta_p^2 = .030$  (Figure 1). Pairwise comparison revealed no significant difference between Chinese–Malay targets who confronted ( $M = 4.79, SD = 1.11$ ) or remained passive ( $M = 4.81, SD = 0.99$ ) in the face of racial prejudice,  $t(106) = 0.13, p = .901, d = 0.02$ , supporting H3. Chinese perceivers expressed more liking for the Indian–Malay target that confronted racial prejudice ( $M = 4.86, SD = 1.06$ ) compared to those who remained passive ( $M = 4.09, SD = 1.31$ ) in the face of racial prejudice,  $t(115) = 3.51, p < .001, d = 0.65$ . The results here replicate the findings from Study 3, further supporting H3.

Chinese perceivers' liking for Indian–Malay targets that confronted racial prejudice ( $M = 4.86, SD = 1.06$ ) matched their expressed liking for Chinese–Malay targets who confronted ( $M = 4.79, SD = 1.11$ ),  $t(115) = 0.39, p = .696, d = 0.06$  or remained passive ( $M = 4.81, SD = 0.99$ ),  $t(115) = 0.47, p = .639, d = 0.09$ .

## Discussion

The findings from Study 4 support Studies 1–3's conclusion that Chinese Singaporeans possess positive interracial and intergroup relations with Chinese–other biracials. Biracials who have shared racial membership with Chinese monoracials (vs. did not) were perceived to identify less as a racial minority and their responses of these biracials to antimajority racial prejudice did little to influence perceivers' expressed liking for them. Additionally, Chinese Singaporeans also reported more liking for biracials who shared racial membership with themselves, replicating the positive social

perceptions in Studies 1 and 2. Last, we found support for a two-way interaction between race and response. For Chinese–Malay biracials who are part of the Chinese Singaporean perceivers' in-group, their response has little influence over perceivers' liking of them, supporting H3. This finding is critical as it demonstrates that Chinese–Malay biracial' status as an in-group member is secure in the eyes of Chinese Singaporean perceivers. Passivity in the face of antimajority racial prejudice may indicate to perceivers that biracials may have weak ties to the majority racial group. However, our findings (Figure 1) showed that there was no difference in Chinese Singaporeans' expressed liking for Chinese–Malay biracials. Critically, for Indian–Malay biracials who shared no racial membership with the Chinese monoracial perceivers, confronting (vs. being passive about) antimajority racial prejudice led Chinese Singaporeans to increase their liking of them, to the same levels of liking that Chinese Singaporeans reported for Chinese–Malay biracials.

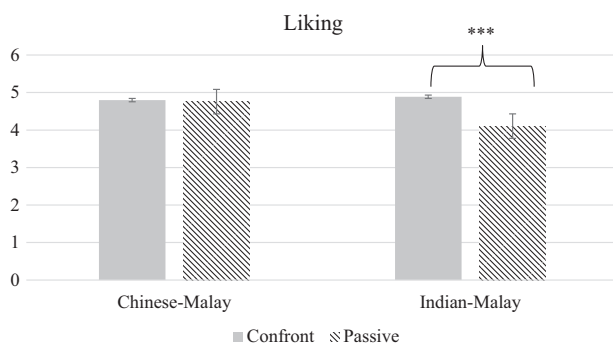
Thus, the findings in Study 4 are consistent with those in Study 3 showing that Chinese Singaporeans reported greater changes in their attitudes toward out-group (vs. in-group) members (H3). This suggests that Chinese Singaporeans valued out-group's act of defending own racial identity (Study 3) and were supportive of minority groups who confront racial prejudice (Studies 3 and 4). This is counter to existing research conducted in the United States that highlighted the dilemma that many racial minorities experience in the face of racial prejudice: (a) to confront and stand up for oneself or (b) remain passive to be liked by the ethnic majority (Czopp & Monteith, 2003). In addition, our findings showed that Chinese Singaporeans appreciate out-group members' moral act of defending Chinese prejudice and reciprocate their goodwill with an increase of liking toward the minority group. Our results illustrate that perceptions and categorizations of biracials are not always negative. Monoracial perceivers can perceive biracials with shared racial membership as racial in-group and display more positive perceptions toward them, which are congruent with in-group bias tendency.

## General Discussion

While prior research has demonstrated the role of hypodescent in guiding monoracials' perceptions of biracials, our findings indicate that this is less so in Singapore, where social perceptions of biracials are, relatively speaking, seemingly guided by a common social identity, shared racial membership in this case. More importantly, among biracials with shared racial membership, this common social identity provides the basis on which monoracials form positive social perceptions of biracials. Findings from Studies 1 and 2 suggest that Chinese Singaporeans perceive and categorize biracials who share their racial membership as more of an in-group member compared to out-group monoracials and exhibited more positive social perceptions toward them. Using the confrontation of anti-minority racial prejudice paradigm, results from Study 3 illustrated that while confronting antimajority prejudice led Chinese Singaporeans to perceive Chinese–Malay biracials to identify as more Malay, this did not change their expressed liking toward these biracials.

Results from Study 4 further demonstrated that the implications of confronting antimajority prejudice for biracials in Singapore may be governed by shared racial membership. In Study 4, Chinese–Malay

**Figure 1**  
*Interaction of Race and Response on Liking*



Note. Error bars represent standard errors.

\*\*\*  $p < .001$ .

biracial targets were perceived to identify less as a racial minority and were more well liked compared to Indian–Malay biracials. This suggests that shared racial membership with monoracial perceivers led to more favorable perceptions of in-group biracials (i.e., Chinese–Malay). In comparison, Indian–Malay biracials who are considered an out-group member were perceived less favorably. Together, the findings illustrate that even if biracials display weak (Study 3) or strong (Study 4) allegiance to Chinese Singaporean perceivers, shared racial membership allows Chinese Singaporeans to perceive them favorably and consistently as an in-group member.

According to social identity theory (Tajfel, 1970; Tajfel et al., 1971; Tajfel & Turner, 1986), individuals perceive in-group members more favorably over out-group members. Our findings demonstrated that Chinese Singaporeans perceived Chinese–other biracials to possess more racial overlap (Study 1), regarded Chinese–other biracials more positively (Study 2) even in the face of antiminority (Study 3) and antimajority prejudice confrontation (Study 4). When Chinese Singaporeans perceive Chinese–other biracials as an in-group member due to their shared racial membership, monoracials may develop more positive perceptions and attitudes toward biracials. The current evidence is aligned with Chinese Singaporean perceivers' in-group bias in perceptions and attitudes toward Chinese–other biracials, although in-group bias tendency was not directly investigated in this research. Future research can empirically examine Chinese perceivers' in-group bias toward other Chinese, Chinese–other biracials, monoracial minorities, and minority biracials to illuminate the Chinese monoracials' cascading in-group categorizations in Singapore. Nonetheless, our findings provide some initial evidence that by highlighting shared social identity, biracials' can be perceived as racial in-groups of monoracials and benefit from monoracials' positive perceptions and impressions of them.

Furthermore, our results showed that out-group members may not necessarily be disadvantaged in Singapore. Perceivers' liking for minority–minority biracials who confronted antimajority racial prejudice can be on par with their liking for biracial in-groups. This suggests that Chinese Singaporeans appreciate minority's support for Chinese through their demonstrations of courage to confront antimajority racial prejudice. Notably, this unexpected positive effect was only found among Indian–Malay biracials who are out-group members and not Chinese–Malay biracials who are considered in-group members. A potential explanation for this finding may lie in the salience of allegiance with the majority of monoracial group. Multiracial values of racial harmony (Hewstone & Ward, 1985) may possibly enhance the legitimacy of confronting racial prejudice, which allowed monoracial Chinese to appreciate out-group minority–minority biracials when they confront racial prejudice. Indeed, our findings illustrate that confronting racial prejudice in Singapore can lead positive evaluations (Chaney et al., 2021) and not just negative evaluations (Crosby et al., 2008). Future research could examine if speaking out against racial prejudice targeted at other groups may help facilitate intergroup relations.

This article also contributes to the literature on minority confrontation. Previous research on prejudice confrontation has shown that when racial minorities speak out (vs. do not speak out) against prejudice, monoracials tend to evaluate them more negatively (Crosby et al., 2008; Czopp & Monteith, 2003). However, existing

research has only examined perceivers' perceptions of biracials who confronted antiminority and not antimajority racial prejudice. Our findings illustrate that confronting the type of racial prejudice does influence perceivers' perception and feelings toward biracials. While this study was conducted in Singapore and sociohistorical factors may contribute to this positive finding, future empirical research across different cultural contexts should be conducted to probe the positive effect of confronting antiminority/majority racial prejudice found in Studies 3 and 4.

Our research is not without limitations. First, our samples are composed of college students. College students may be more educated and liberal in their racial perceptions and attitudes in comparison to other groups in the society (Arnett, 2016). Future research should replicate our findings with more diverse and representative samples. Second, our experimental paradigm was limited to monoracials and Malay–other biracial targets. We did not include other–Asian (e.g., Caucasian–Chinese) biracial targets in our experiments. Different racial compositions could have different implications on monoracial perceiver's perceptions of race shift considering that Singapore does not ascribe to the same social categorization rule (e.g., Smith & Wout, 2019). More research needs to be conducted using non-Western, Educated, Industrialized, Rich Democratic (Henrich et al. 2010) samples to ascertain the generalizability of our findings. Next, although the majority of Chinese Singaporeans see biracials with shared racial membership as their in-groups, it is also noticed that not *all* monoracial Chinese Singaporeans perceive such type of biracials as their in-groups. This demonstrates the complexity of interracial relations, which begs more research in the exploration of individual and social factors involved. Future research should investigate individual differences in dealing with racial relations and biracial perceptions and explore the related individual and social factors. Furthermore, we used different measures in Study 3 compared to Studies 1 and 2. Additionally, future research could replicate the findings of Studies 3 and 4 with the SCM model to further examine monoracials' perceptions of biracials. Last, it is conceivable that different cultural contexts and interracial relations can guide monoracial perceptions of biracial targets to be relatively fixed or more fluid. Our research has yet to explore monoracials' assumptions of race as well as how their race beliefs influence their biracial perceptions and categorization. Future research should explore race perceptions and racial essentialism to further understand and explain biracials' experiences across cultures.

## Conclusion

In understanding perceptions of race and interracial relations in Singapore, we found that perceptions of biracials and their associated implications can be guided by shared racial membership. Chinese Singaporeans perceive biracials with shared racial membership more as racial in-group and more favorably. This positive perception remains regardless of their confrontation of or passivity in the face of racial prejudice. In addition, Chinese Singaporeans seem to have more respect for out-group biracials who confront racial prejudice and like them more. In short, we found that biracials may be regarded in a positive light when their shared racial identity is made salience to monoracial perceivers. Our findings help enrich our understanding of social identity processes and biracial experiences in different societies.

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