

How Black is Biracial?
Black People's Empathy Towards Black/White Biracial People Following Racial
Discrimination in the United States

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Marisa Franco: Conceptualization, data curation, formal analysis, funding acquisition, methodology, writing—original draft

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Abstract

Objectives: Two studies investigate how Black people's empathy towards Black/White Biracial people experiencing racial discrimination relates to Black/White Biracial people's identification in the United States.

Methods: Study 1 ($N = 151$, $M_{age} = 36.3$ years, $SD = 11.1$, 57% female) examines how Black people's perceptions of whether Black/White Biracial people identify as Black at a group level are related to empathy towards them through correlational methods. In Study 2 ($N = 590$; $M_{age} = 32.3$ years, $SD = 11.4$, 71% women), we experimentally manipulate Black/White Biracial people's racial identity through vignettes and assess Black participants' perceived similarity, racial identification of the Black/White Biracial target as Black, linked fate, and empathy. We tested Black participants' empathy towards a Black/White Biracial target who self-identified as Black, self-identified as White, or self-identified as Biracial, consistent with common identification patterns among Biracial people.

Results: Black participants empathized least with Black/White Biracial people who were perceived as identifying as White, or who explicitly self-identified as White. This association was mediated by perceptions that Black/White Biracial and Black people's fates are linked. Overall, Black people were most likely to empathize with Black/White Biracial people identifying as Black.

Conclusions: For liminal group members, identification confers information regarding similarity, shared identity, and linked fate that relate to procuring empathy.

Keywords: empathy, racial identity, ingroup benefits, intergroup relations, biracial

Public Significance Statement

Black/White Biracial people in the United States are often considered to be on the boundaries of Black and White monoracial groups, and can racially identify as Black, White, or Biracial. Two studies tested how Black participants' empathy towards Black/White Biracial people who experience discrimination differs based on Biracial people's identity. The results show Black participants empathized least with Black/White Biracial people who were perceived as identifying as White, or who explicitly self-identified as White.

How Black is Biracial? Black People's Empathy Towards Black/White Biracial People Following Racial Discrimination in the United States

The social hierarchy in the United States provides differential resources based on race, leading to rampant racial inequality and discrimination (Roberts & Rizzo, 2020). Amid these group dynamics where racial groups are treated differently, people who share a racial identity (i.e., racial ingroup members) benefit from various psychological resources compared to people who do not share a racial identity (i.e., racial outgroup members), including greater empathy (Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013; Tajfel, 1970). Though psychological benefits for clearly marked racial ingroup members are evident, less is known about the racial ingroup status and subsequent group benefits extended to liminal group members, such as Biracial individuals (i.e., individuals of multiple racial heritages). As members on the boundaries of multiple racial groups, Biracial people often challenge or blur these group boundaries, and demonstrate wide variability in their self-identification (Rockquemore, 1999). Biracial individuals are the fastest growing U.S. racial group, and Black/White Biracial people make up a large Biracial subgroup (Jones et al., 2021). Whether monoracial Black people consider Black/White Biracial people ingroup members is of great significance to the future of racial group boundaries and dispersion of group resources for all racial groups (Ho et al., 2020). Because Black/White Biracial people comprise 12.3% of the U.S. Black community (i.e., 12.3% of people who self-identified as Black or African American in the 2020 U.S. census also identified with another racial group; Jones et al., 2021¹), their ingroup status affects both their own access to group benefits, and the composition of the Black population.

¹ It is important to note the variability in researchers' conceptualization and operationalization of Biracial identity, a point that underscores the social constructive nature of race (Albuja et al., 2022). In the present study, we define Biracial people as those who have parents of different racial backgrounds.

Black/White Biracial people's ingroup status in the Black community is complex. Black people report high levels of acceptance of Black/White Biracial people into the Black community, often categorizing Black/White Biracial people as Black, and some Black/White Biracial people report feeling accepted in Black communities, suggesting they are considered Black ingroup members (Franco & Holmes, 2016; Ho et al., 2011; Pew Research Center, 2015). In contrast, some Biracial people report experiencing rejection from Black communities, suggesting they are not considered Black ingroup members (Franco & Franco, 2015; Harris & Khanna, 2010). For example, one study found that Black people with a nationalist identity were less likely to accept Black/White Biracial people, likely driven by a desire to create ingroup solidarity via a homogenous Black identity in response to discrimination (Franco et al., 2019). Further, Black/White Biracial people's ingroup status in the Black community is also likely influenced by variation in their own racial identification, as Black/White Biracial people may identify as White, Black, or Biracial (Rockquemore, 1999). To clarify these conflicting results and explore the role of perceived racial identification, the current research investigates how Black people's extension of ingroup benefits to Black/White Biracial individuals differs based on Biracial people's identification.

Specifically, two studies tested whether Black people empathize with Black/White Biracial people who have experienced racial discrimination, because racial discrimination is a context where intergroup dynamics and ingroup benefits are especially salient (Cikara et al., 2011). Moreover, Biracial people report high rates of discrimination, with U.S. Biracial adults in a nationally representative study reporting greater discrimination rates than White and Asian adults, though lower discrimination than Black adults (Nalven et al., 2021; Mpofu et al., 2022). This underscores the importance of understanding the psychological resources available to

Biracial people who experience discrimination, particularly from Black perceivers who may have similar lived experiences of discrimination and racism. Moreover, Black participants' perceptions of intergroup dynamics have been traditionally understudied within psychological research, highlighting the need to understand their response to Black/White Biracial people who experience discrimination (Roberts et al., 2020).

Status of Black/White Biracial People in the Black Community

The historical one-drop rule indicated any amount of “Black blood” made people Black (Davis, 1991). This rule has led to the categorization of Black/White Biracial people according to hypodescent—categorized as more Black than White, regardless of their degree of White heritage (Rockquemore et al., 2009). Although hypodescent is not universally applied (see Young et al., 2021 for a meta-analysis), both White and Black people sometimes apply hypodescent for different reasons (Ho et al., 2011; Ho et al., 2017; Peery & Bodenhausen, 2008; Smith & Wout, 2019; Wright et al., 2014).

Black people's categorization of Black/White Biracial people as more Black than White may demonstrate Biracial people's ingroup status among the Black community and outgroup status among Whites (Chen & Ratliff, 2015; Gaither et al., 2016; Ho et al., 2017). Indeed, Black participants who reported greater perceptions of linked fate—the belief that the fate of Black and Black/White Biracial people are linked—were more likely to categorize Black/White Biracial people as Black (Ho et al., 2017). Similarly, whereas White people transferred negative evaluations from a poorly performing Black person onto a neutral performing Black/White Biracial person, Black people did not transfer these evaluations (Chen & Ratliff, 2015). These findings suggest Black people perceive Black/White Biracial people as ingroup members because people tend to individuate ingroup members and generalize across outgroups (Ratliff &

Nosek, 2011). Lastly, when Black people's sense of belonging was threatened, they were more likely to categorize Black/White Biracial people as Black rather than White (Gaither et al., 2016). Given that threat activates desires to denote ingroup status only to clear ingroup members instead of risking additional threat by being exposed to outgroup members, this finding suggests Black people perceive Black/White Biracial people as racial ingroup members (Gaither et al., 2016).

In contrast, Black/White Biracial people report experiencing rejection from Black people and sometimes struggling to fit in among the Black community (Franco & Franco, 2015; Franco et al., 2016; Harris & Khanna, 2010; Rockquemore & Brunnsma, 2001). Generally, rates of rejection of Black/White Biracial people from the Black community are low (Franco & Holmes, 2016; Franco et al., 2019), but are more likely among Black people who endorse a nationalist racial ideology (Franco et al., 2019). Thus, Biracial people sometimes experience "conditional acceptance" into the Black community, wherein their status as ingroup members may be partially revoked, particularly when they identify as White or Biracial over Black (Harris & Khanna, 2010; Rockquemore & Brunnsma, 2001; Smith & Wout, 2019; Thorton, 2009). While the racial classification literature suggests Black people see Biracial people as racial ingroup members, research with Biracial participants complicates these findings.

Empathic Responses to Racial Discrimination

Being considered a racial ingroup member is especially relevant in the context of racial discrimination because responses to discrimination vary by racial group (Major & O'Brien, 2005). Indeed, Black people are more likely to view an ambiguous event as discriminatory if the victim is an ingroup member. For example, Black participants viewed a hiring decision as more discriminatory when the victim was Black compared to White, while White participants did not

differentiate by race (Simon et al., 2013). Given the detrimental effects of discrimination on mental and physical well-being (Pascoe & Smart Richman, 2009), ingroup status among Biracial people may avail them of ingroup benefits following discrimination (Stephan & Finlay, 1999). Specifically, Black people may provide empathy to Black/White Biracial people when Black/White Biracial people are racially discriminated against. Empathy occurs when others understand an individual's actions, intentions, and emotions (Pettigrew & Tropp, 2008). Empathy promotes increased mirroring neural responses and subsequently, understanding of another's needs and feelings (Gutsell & Inzlicht, 2010; Xu et al., 2009). Perceivers who empathize with others' experiences are less likely to evaluate them negatively (Kaufman & Libby, 2012; Pettigrew & Tropp, 2008), and are more likely to allocate resources to assist them (Batson et al., 2002). According to intergroup emotions theory, events appraised as relevant to one's group elicit emotional responses, suggesting that Black people's empathy extended to Biracial people indicates their inclusion within the group (Smith & Mackie, 2015).

Perceived Racial Identity

In previous research, Black people perceived as less prototypical (i.e., high income Black people and those with mostly White friends) were seen as lesser ingroup members (Franco & Franco, 2015; Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013), and were afforded less empathy (Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013). Furthermore, less empathy for non-prototypical Black people is explained by them being perceived as racially identifying less as Black (Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013). Thus, Black people may similarly be less likely to empathize with Biracial people if they perceive them as racially identifying as less Black.

One factor that may influence Black people's perception of Biracial people's racial identity, and subsequently how much they empathize with them, is how Biracial people self-identify. For example, previous research finds Black people perceive Black/White Biracial people who self-identify as Black as more Black than those who self-identify as Biracial, particularly when Black/White Biracial people are racially ambiguous (Young et al., 2017). Thus, to the extent that Black/White Biracial people are perceived as identifying as Black, they may receive differential ingroup status and empathy.

Perceived Similarity

Individuals empathize more with ingroup than outgroup members (Batson & Ahmad, 2009; Cikara et al., 2011), partly because ingroup members are perceived as more similar (Cikara et al., 2011), and as sharing an identity (Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013; Xu et al., 2009). For example, Black participants showed empathic brain responses to Black, but not White, people experiencing pain (Avenanti et al., 2010). Similarly, when experiences of discrimination were framed as shared between Black people and same-sex couples, Black participants reported greater empathy for same-sex couples compared to when discrimination was not seen as a shared experience (Cortland et al., 2017). While empathy after experiencing discrimination is offered to ingroup members and those who have shared experiences, it is not clear whether those perceived to be liminal group members, such as Biracial people, will receive empathy as well. This is important because empathy can help individuals better cope with experiences of discrimination (Kaufman & Libby, 2012; Pettigrew & Tropp, 2008).

Linked Fate

Black people may also empathize with Black/White Biracial people because they perceive a sense of linked fate with them. Black people's sense of linked fate with Black/White Biracial people is driven by a perception of common susceptibility to discrimination (Ho et al., 2017). Specifically, Black people who perceive higher amounts of linked fate are more likely to see Black/White Biracial people as part of their racial ingroup (Ho et al., 2017). Given that people empathize more with ingroup members (Batson & Ahmad, 2009; Cikara et al., 2011), perceptions of linked fate may be related to responses of empathy.

Overview of Studies

Because non-prototypical members of the Black community receive less empathy than prototypical members (e.g., Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013), we examined whether a Black person's empathy towards a Biracial person differs if the Biracial person identifies as White, Black, or Biracial through correlational (Study 1) and experimental (Study 2) methods. We explored whether differences based on identification were mediated by participants' identification of Biracial people, perceived similarity, and perceptions of linked fate (Ho et al., 2015). The studies reported in this manuscript were preregistered (Study 1: <https://aspredicted.org/cf8gj.pdf>; Study 2: <https://aspredicted.org/yz47r.pdf>) and included the study design, planned sample size, inclusion/exclusion criteria, and planned primary analyses. Materials, data, and analysis code for all studies can be found at: <https://osf.io/t86fy>. We report all manipulations, measures, exclusions, and pre-registered analyses in these studies. We note any deviation from the pre-registered analyses in the main text and report the analyses as they were pre-registered in the supplemental materials. The studies were approved by an institutional review board.

Study 1

Study 1 assessed Black people's perceptions of how Black/White Biracial people racially identify and tested how these perceptions of identification influence Black people's empathy towards Biracial people at a group level. We anticipated that Black people who perceived Black/White Biracial people as identifying as more Black would report greater empathy towards them. Further, we hypothesized that when Black/White Biracial people are perceived as self-identifying as more Black, participants would identify the group as more Black and perceive greater similarity, and subsequently, report greater empathy. Moreover, Study 1 tested linked fate as a mediator in addition to similarity and racial identification of the target. Linked fate is driven by perceptions of shared experiences of discrimination. Therefore, because Black/White Biracial people who identify less as Black are perceived as less of an ingroup member (Chen et al., 2018; Smith & Wout, 2019), and because people are more likely to perceive discrimination if it is experienced by ingroup members (Simon et al., 2013), we reasoned that perceptions of a Biracial person's identity may be associated with linked fate perceptions between Black and Biracial people and, in turn, relate to empathy. We hypothesized that when Black/White Biracial people are perceived as identifying as more Black, linked fate perceptions would be higher, and subsequently, so would empathy.

Methods

Participants and Design

Sample size determination was driven by previously established guidelines for path analyses recommending 15 participants per parameter being estimated (Kline, 2011). Based on these guidelines, Study 1 required at least 135 participants. Participants ($n = 316$) completed a demographic screener on Amazon Mechanical Turk. Consistent with the pre-registration, we excluded participants who did not meet the demographic criteria ($n = 135$), missed the attention

check ($n = 16$), did not answer any questions ($n = 12$), or had z-scores on key variables more than 3 standard deviations above or below the mean ($n = 2$). The final sample included 151 Black participants ($M_{age} = 36.3$ years, $SD = 11.1$, 57% female, modal income was between \$20,000-\$29,999). Sensitivity power analyses indicated this sample size provided 80% power to detect a minimum correlation of $r = 0.23$.

After completing a demographic prescreen, participants consented online, and responded to measures examining their perception of how Biracial people racially identify themselves, their own racial identification of Biracial people, perceived similarity between Biracial and Black people, perceptions of linked fate, and empathy towards a Biracial person who is discriminated against (see supplemental materials for an additional exploratory measure of acceptance of Biracial people; Franco & Holmes, 2016).

Measures

Perceived Self-Identification of Biracial People. Participants completed three items measuring their perception of how Biracial people racially identify themselves: “How do you think Black/White Biracial people identify racially?” (1 = *White*, 7 = *Black*), “Black/White Biracial people are more likely to identify as Black than White” (1 = *Strongly Disagree*, 7 = *Strongly Agree*), and “Generally, Black/White Biracial people identify as Black” (1 = *Strongly Disagree*, 7 = *Strongly Agree*). Items were averaged, with higher values indicating participants thought Biracial people racially identified themselves as more Black than White ($\alpha = .85$).

Perceived Similarity. Participants reported how similar they felt to Biracial people through the 1-item Inclusion of Other in Self scale, which included seven Venn diagrams increasing in overlap (Aron et al., 1992). The Venn diagrams were labeled “Me” and “Black/White Biracial People”, and higher numbers indicated greater perceived similarity to

Biracial people. Past research has validated comparable measures with Black participants (Ong et al., 2016).

Racial Identification of Biracial People. Participants completed three items measuring how *they* racially identify Biracial people: “How do you racially identify Black/White Biracial people” (1 = *White*, 7 = *Black*), “I identify Black/White Biracial people as more Black than White” (1 = *Strongly Disagree*, 7 = *Strongly Agree*), and “Generally, I identify Black/White Biracial people as Black” (1 = *Strongly Disagree*, 7 = *Strongly Agree*). Items were averaged, with higher values indicating participants identified Biracial people as more Black than White ($\alpha = .88$).

Linked Fate. Participants completed an 8-item measure examining the extent to which they believed the destiny of Black and Black/White Biracial people are linked (Ho et al., 2017). A sample item included, “What happens to Black/White Biracial people in this country will have something to do with what happens to Blacks.” Participants responded using a 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) scale. Items were averaged, with higher values indicating greater perceptions of linked fate ($\alpha = .90$).

Empathy. Participants were asked to “imagine a Black/White Biracial person is experiencing discrimination” and report their empathy using an 8-item measure of empathy towards the target (Batson et al., 2002). Participants responded using a 1 (*Very Little*) to 7 (*Very Much*) scale. Items were averaged, with higher values indicating greater empathy ($\alpha = .83$).

Results and Discussion

Analysis Plan

We conducted path and parallel mediation analyses using Mplus 8 software (Muthén & Muthén, 2010), consistent with the pre-registration. Mediation analyses were conducted using 10,000 bootstrapped resamples of the estimate of the indirect effects. Good model fit was

determined through a non-significant χ^2 value, Comparative Fit Index (CFI) $\geq .95$, Root Mean Square Error of Approximation (RMSEA) $\leq .06$, and standardized root mean square residual (SRMR) $< .08$ (Hu & Bentler, 1999; Kline, 2011).

Path and Mediation Analyses

See Table 1 for bivariate correlations between the study variables. The hypothesized model demonstrated good fit, $\chi^2 (1, N = 151) = 2.65, p = .104, RMSEA = 0.11, 90\% CI = [0.00, 0.27], CFI = 0.99, SRMR = 0.02$ (see Figure 1). Participants who perceived that Black/White Biracial people generally identify as more Black also reported greater similarity, identified Black/White Biracial people as more Black, perceived greater linked fate, and reported more empathy. In turn, greater perceptions of similarity, identification of Biracial people as Black, and perceptions of linked fate were associated with greater empathy. These findings suggest perceptions of how a Biracial person identifies may influence how much Black people empathize with them when they experience racial discrimination. Black people empathized more with Biracial people when they perceived them as identifying as more Black, which was associated with seeing them as more similar to Black people, identifying them as more Black, and believing they share a higher degree of linked fate with Black people.

Mediation analyses tested whether the association between perceived self-identification of Biracial people as Black and empathy was mediated by participants' similarity, identification of Biracial people, and linked fate. As pre-registered, we tested a parallel mediation model including the three mediators simultaneously. The results indicated that linked fate significantly mediated the association, $\beta = .08, 95\% CI [.001, .15]$, whereas similarity, $\beta = .05, 95\% CI [-.01, .11]$ and participants' identification, $\beta = .04, 95\% CI [-.04, .12]$ did not. Of the mediators measured, linked fate was most strongly associated with Black people's empathy with Biracial

people who they perceive identify as more Black. Exploratory analyses testing each mediator separately are reported in the supplemental materials.

Study 2

Study 2 sought to replicate Study 1 findings by experimentally manipulating Biracial people's racial identity and assessing similarity, participants' racial identification of a Black/White Biracial target, linked fate, and empathy. Because Black/White Biracial people are perceived as colder than both Black and White people, and because this coldness penalty has negative consequences for their access to resources (Sanchez & Bonam, 2009), we also examined the mediating role of coldness towards Biracial people. We tested Black participants' empathy towards a Biracial target who self-identified as Black, self-identified as White, or self-identified as Biracial, consistent with common identification patterns among Biracial people (Rockquemore, 1999). We hypothesized that a Black-identified Biracial target would receive more empathy than a Biracial-identified Biracial target, and that a White-identified Biracial target would receive less empathy than both a Black- and Biracial-identified Biracial target. We anticipated this effect would be mediated by similarity and participants' racial identification of the target, such that Black-identified targets would be perceived as most similar to Black participants and would be identified by participants as Black the most, and White-identified targets, the least; Biracial-identified targets were expected to fall in the middle, thus relating to variations in empathy. We also hypothesized that linked fate perceptions would be highest for the Black-identified target, lowest for the White-identified target, and that linked fate would fall between these two for the Biracial-identified target. Additionally, we hypothesized that variations in linked fate would be associated with differences in empathy towards Black-, White-, and Biracial-identified targets.

Lastly, we hypothesized that coldness towards Biracial people would be lowest for the Black-identified target. This is because shared identity contributes to greater warmth (Cuddy et al., 2007), and Biracial people are perceived as colder than Black people (Sanchez & Bonam, 2009). Although Biracial people were also perceived as colder than White people (Sanchez & Bonam, 2009), previous research used mostly White participants, so it is unclear whether Black participants would perceive Biracial-identified targets as colder than White-identified ones, given that Black people are more likely than White people to penalize Black/White Biracial people when they identify as more White (Young et al., 2017). Furthermore, we hypothesized that variations in coldness would be associated with differences in empathy towards Black-, White-, and Biracial-identified targets.

Methods

Participants

Using the parameters from a supplemental study (see supplemental materials), a Monte Carlo simulation indicated a necessary sample of at least 564 participants to have 80% power to detect indirect effects in Study 2. Accordingly, we recruited 590 self-identifying Black/African American participants to complete an online study examining others' experiences ($M_{age} = 32.3$, $SD = 11.4$, 71% women, modal income \$100,000 or more). Participants were recruited through Amazon Mechanical Turk and other convenient sampling platforms (e.g., e-mail listservs and social media postings). On Amazon Mechanical Turk, participants ($n = 737$) completed a demographic screener. Consistent with the pre-registration, we excluded participants who did not meet the demographic criteria ($n = 231$), missed at least one of the two attention checks ($n = 129$), or did not finish the study ($n = 5$), leaving a sample of 372. On the other sampling platforms, participants ($n = 375$) completed a screener. We excluded participants who did not

meet demographic criteria ($n = 129$) or missed at least one of the two attention checks ($n = 28$), leaving a sample of 218. All participants passed a manipulation check. Sensitivity power analyses indicated this sample size provided 80% power to detect a difference between three independent groups ($n_{\text{Black condition}} = 205$, $n_{\text{Biracial condition}} = 192$, $n_{\text{White condition}} = 193$) with a minimum effect size of $\eta^2 = 0.016$.

Procedure

After consenting online, participants were randomly assigned to read one of three vignettes about a Black/White Biracial adolescent being bullied for their racial background (see Materials at <https://osf.io/t86fy> for the full vignettes). Conditions varied based on how the Black/White Biracial adolescent racially self-identified: Black, White, or Biracial. After reading the vignette, participants completed measures examining similarity to self, racial identification of the target, linked fate, coldness towards Biracials, empathy, and other exploratory measures, reported in the supplemental materials.²

Measures

Perceived Similarity. Participants completed the same 1-item measure of perceived similarity as in Study 1, tailored to the target in the vignette.

Racial Identification of Target. Participants racially identified the target through three items. They answered the questions “How do you racially identify this person?”, “How Black do you see this person?”, and “How similar do you think the student is to Black people in general?”

² Participants also reported social dominance orientation ($\alpha = .82$; Ho et al., 2015), concepts of discrimination, perceptions of the target’s self-identification, similarity to White and Biracial people, feeling thermometer toward Black and White people, oppressed minority ($\alpha = .79$), assimilationist ($\alpha = .74$), nationalist ($\alpha = .74$), and humanist ideology ($\alpha = .71$; Sellers et al., 1997), and how White and Biracial participants see the target. Results are reported in the supplemental materials for brevity.

using scales of 1 (*White*) to 7 (*Black*), 1 (*Not at all Black*) to 7 (*Completely Black*), and seven Venn diagrams with increasing overlap, respectively. The items were averaged ($\alpha = .57$).

Linked Fate. Participants completed the same measure of linked fate used in Study 1 ($\alpha = .87$; Ho et al., 2017).

Coldness Towards Biracial People. Participants completed a 1-item feeling thermometer examining their feelings of coldness and warmth towards Biracial people generally. Participants responded on a 1 (*Very Cold*) to 7 (*Very Warm*) Likert scale with higher numbers indicating greater feelings of warmth towards Biracial people.

Empathy. Participants completed the same 8-item measure of empathy used in Study 1, except they reported their empathy in reaction to reading the vignette of a Black-, White-, or Biracial-identified Biracial person experiencing discrimination ($\alpha = .89$).

Results and Discussion

Preliminary Results

As exploratory analyses, one-way ANOVAs and Tukey Honest Significant Difference post hoc comparisons examined condition differences in the variables of interest (see Table 2). First, we examined differences in participants' empathy towards the target. Consistent with our pre-registration, we removed six participants who had empathy z-scores 3 standard deviations above or below the mean. There was an effect of condition on empathy such that participants empathized with the White-identified target less than the Black-identified target, $p < .001$, 95% CI of the mean difference [-0.17, -0.68], and Biracial-identified target, $p = .010$, 95% CI [-0.59, -0.07]. However, there was no difference between the Black-identified and Biracial-identified targets, $p = .656$, 95% CI [-0.16, 0.36]. Thus, Black participants empathized more with a Biracial target who was Black- or Biracial-identified over one who was White-identified. Counter to our

hypotheses, there were no differences in Black people's empathy towards a Biracial target who was either Biracial- or Black-identified. This is consistent with findings from Smith and Wout (2019), which indicate Black- and Biracial-identified Biracial people were perceived as more of ingroup members than White-identified Biracial people.

Next, we found an effect of condition on perceived similarity (see Table 2). Contrary to expectations, there was no difference in the similarity of the Black-identified and Biracial-identified target to themselves, $p = .952$, 95% CI [-0.36, 0.46]. However, participants perceived the White-identified target as less similar to themselves than both the Black-identified, $p = .002$, 95% CI [-1.02, -0.19], and Biracial-identified target, $p = .005$, 95% CI [-0.97, -0.14].

There was also an effect of condition on participants' racial identification of the target. As expected, participants identified the Black-identified target as more Black than the Biracial-identified target, $p < .001$, 95% CI [0.24, 0.75], and White-identified target, $p < .001$, 95% CI [0.55, 1.05]. Further, participants identified the Biracial-identified target as more Black than the White-identified target, $p = .017$, 95% CI [0.04, 0.56]. Overall, Black participants perceived a Black-identified Biracial target as most Black, followed by a Biracial-, and finally a White-identified Biracial target.

There was an effect of condition on linked fate (see Table 2). Participants reported greater linked fate when the target identified as Black versus White, $p = .031$, 95% CI [0.02, 0.58]. However, there was no difference in linked fate when the target identified as Biracial versus White, $p = .974$, 95% CI [-0.26, 0.31], or as Black versus Biracial, $p = .056$, 95% CI [-0.01, 0.56]. Thus, when Black participants are exposed to a Black-identified Biracial target, their perceptions of linked fate between Black and Biracial people in general increases, relative to when they are exposed to White-identified Biracial targets.

Lastly, we examined condition differences in coldness towards Biracial people. We expected participants to feel the warmest in the Black-identified target condition, the coldest in the White-identified target condition, and in the middle in the Biracial-identified target condition. We found no condition differences in coldness towards Biracial people (see Table 2).

Mediation Analyses

As pre-registered, we tested the indirect effects of condition on empathy through perceived similarity, participants' racial identification of the target, or linked fate with a multicategorical predictor. Separate models were tested for each mediator (see Figure 2). Because there were no condition differences in coldness, we excluded the pre-registered analyses for the coldness mediator from the results reported here (see supplemental materials for mediation analyses including coldness). We used Hayes' Process Model (Hayes, 2012; Model 4 with condition as a multicategorical variable coded with the indicator coding system) to examine the 10,000 bias-corrected bootstrapped resamples of the estimate of the indirect effect. For ease of interpretation, we present the results organized by each relevant contrast. Additionally, an exploratory parallel mediation analysis tested the mediators simultaneously to compare the relative indirect effects.

Black- versus Biracial-identified. The indirect effect of condition on empathy was not mediated by perceived similarity, $\beta = .01$, $SE_{boot} = 0.02$, 95% CI [-.03, .04]. However, the indirect effect of condition on empathy was mediated by participants' racial identification of the target, $\beta = .06$, $SE_{boot} = 0.02$, 95% CI [.02, .11], and linked fate, $\beta = .06$, $SE_{boot} = 0.03$, 95% CI [.01, .12]. When the target identified as Black, versus Biracial, participants identified the target as more Black and reported higher levels of linked fate. In turn, participants reported more empathy. In the parallel mediation model, the indirect effect of condition on empathy was

mediated by linked fate, $\beta = .06$, $SE_{boot} = 0.03$, 95% CI = [.01, .13], but not perceived similarity, $\beta = .004$, $SE_{boot} = 0.02$, 95% CI = [-.03, .04], or participants' racial identification of the target, $\beta = .02$, $SE_{boot} = 0.03$, 95% CI = [-.03, .07] (see Supplemental Materials for figure).

Black- versus White-identified. The indirect effect of condition on empathy was mediated by perceived similarity, $\beta = .06$, $SE_{boot} = 0.02$, 95% CI [.02, .11], participants' racial identification of the target, $\beta = .09$, $SE_{boot} = 0.04$, 95% CI [.03, .17], and linked fate, $\beta = .08$, $SE_{boot} = 0.03$, 95% CI [.01, .14]. Compared to the Black-identified target, participants perceived the White-identified target as less similar to themselves, identified the target as less Black, and reported lower levels of linked fate. In turn, participants reported less empathy. In the parallel mediation model, the indirect effect of condition on empathy was mediated by perceived similarity, $\beta = .04$, $SE_{boot} = 0.02$, 95% CI = [.01, .08] and linked fate, $\beta = .06$, $SE_{boot} = 0.03$, 95% CI = [.01, .12], but not participants' racial identification of the target, $\beta = .01$, $SE_{boot} = 0.03$, 95% CI = [-.05, .08] (see Supplemental Materials for figure).

White- versus Biracial-identified. The indirect effect of condition on empathy was mediated by perceived similarity, $\beta = .05$, $SE_{boot} = 0.02$, 95% CI [.02, .10], and participants' racial identification of the target, $\beta = .04$, $SE_{boot} = 0.01$, 95% CI [.01, .07], but not linked fate, $\beta = .01$, $SE_{boot} = 0.03$, 95% CI [-.05, .06]. When the target identified as Biracial, versus White, participants perceived the target as more similar to themselves and identified the target as more Black. In turn, participants reported more empathy. In the parallel mediation model, the indirect effect of condition on empathy was mediated by perceived similarity, $\beta = .04$, $SE_{boot} = 0.02$, 95% CI = [.01, .08], but not by participants' racial identification of the target, $\beta = .01$, $SE_{boot} = 0.01$, 95% CI = [-.02, .03], or linked fate, $\beta = .01$, $SE_{boot} = 0.03$, 95% CI = [-.05, .07] (see Supplemental Materials for figure).

When mediators were considered, the Biracial-identified target did indirectly receive less empathy than the Black-identified target, although the White-identified target received the least empathy. Specifically, when the target identified as Black, versus Biracial, participants reported higher levels of identification of the target as Black and linked fate, which was associated with greater empathy for the Black-identified target; similarity was not a significant mediator. Additionally, when the target identified as Black, versus White, participants reported higher levels of similarity, identification of the target as Black, and linked fate, which was associated with greater empathy for the Black-identified target. Lastly, when the target identified as Biracial, versus White, participants reported higher levels of similarity and identification of the target as Black, which was associated with greater empathy for the Biracial-identified target. In addition to similarity and racial identification as Black, linked fate depended on the Biracial target's identity, such that linked fate was diminished when a Biracial person identified as non-Black (i.e., White or Biracial), compared to when they identified as Black, which subsequently diminished empathy.

General Discussion

Two studies examined Black people's empathy towards Biracial people experiencing racial discrimination. Though people generally empathize with racial ingroup members, less is known about how much people empathize with liminal ingroup members, who demonstrate variability in their identification (Gaither, 2018; Luo et al., 2018; Xu et al., 2009). Our findings explored the complexities of empathy towards these liminal group members who experience discrimination. Study 1 demonstrated that perceiving Black/White Biracial people as identifying as more Black was associated with greater perceived similarity, greater identification of Black/White Biracial people as Black, greater perceptions of linked fate, and greater empathy.

Study 2 tested these associations experimentally and indicated that Black people empathized to the same extent with individual Biracial people who identify as Biracial or Black. Counter to our hypothesis, this finding suggests liminal and non-liminal ingroup members may receive similar access to ingroup psychological resources when facing racial discrimination. It is possible that no direct differences in empathy towards Black- and Biracial-identified Biracial people were found because the context of discrimination highlighted a possible shared experience and elicited greater empathy. Moreover, past work demonstrates stronger ingroup empathy effects among Black participants compared to other racial groups, suggesting Black people may be empathic towards a broader understanding of the ingroup (Brown et al., 2006). However, Black participants empathized less with a Biracial target who identified as White, suggesting liminal ingroup members who clearly identify with an outgroup lose some access to empathy.

Black people's empathy towards Biracial people becomes more complex when indirect effects are considered. In Study 2, Black people reported less empathy towards a Biracial target who was White-identified compared to those who were either Biracial- or Black-identified because participants identified the former as least Black. These findings are consistent with previous research indicating the importance of shared identity in predicting empathy (e.g., Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013). Moreover, while it may be expected that the targets who self-identify as Black or White would be identified by participants as more (or less) Black, it is interesting that participants identified the Biracial target as in-between the two other targets on Blackness, given that identification as Biracial was not measured. This finding suggests identification as Black is continuous, and participants differentiated between White- and Biracial-identified targets. Perceived Black or White identity centrality were not significant mediators of empathy. Though unexpected, coldness towards Biracial people may not

have been significant because it was measured at a general level rather than coldness towards the specific Biracial target.

These studies also demonstrated the important association between linked fate and Black people's empathy towards Biracial people. Linked fate indicates that Black people perceive their progress signifies progress for Biracial people and vice versa (Ho et al., 2017). While previous research suggests Black people perceive Biracial-identified people as being just as much an ingroup member as Black-identified people (Smith & Wout, 2019), this relationship differs when assessed using linked fate. We find Black people indirectly ascribe less empathy towards Biracial targets who are either Biracial- or White-identified compared to those who are Black-identified, as they perceive less linked fate with non-Black-identified targets. Though previous research indicates the importance of variables like shared identity and similarity in predicting empathy (e.g., Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013; Xu et al., 2009), in Study 2 linked fate was the most significant mediator in the relationship between Black people's perceptions of Biracial people's identity and their empathy towards them. Linked fate may be an especially relevant mediator because, in contrast to the other mediators (i.e., similarity, Black identity), linked fate signifies that empathy may be reciprocal, such that when Black people extend empathy to Biracial people, empathy will be conferred back to Black people.

In contrast to Study 1, similarity was a significant mediator in Study 2 when comparing Black people's empathy towards White-identified and Black- or Biracial-identified targets, showing diminished empathy for White-identified targets. Specifically, Black people saw White-identified Biracial people as least similar to themselves, which was associated with receiving the least amount of empathy. This finding may be due to greater conceptual overlap between the racial identification and similarity measures in Study 2 than in Study 1. Moreover, while Study 1

explored Black people's perceptions of Biracial people at a group level, Study 2 tested perceptions of an individual Biracial person. Indeed, perceptions of similarity are more relevant to evaluations of groups than individuals, as they signal a group's entitativity, or degree of "groupness" (Abelson et al., 1998). One definitive aspect of being Black in the U.S. is being subject to racial discrimination, and through the manipulation Black participants observed a White-identified Biracial person experiencing discrimination (Helms, 1990). Even so, Biracial people identifying as White may be seen as facing less overall discrimination, and this may mark them as fundamentally different from Black people. Indeed, Black people perceive less discrimination towards White people than they do towards themselves (NPR/Robert Wood Johnson Foundation/Harvard T.H. Chan School of Public Health, 2017). In contrast, Black people do perceive that Black/White Biracial people face discrimination and this makes Black people feel a shared identity (Ho et al., 2017). This might explain why Black participants perceived no differences in similarity between Black- and Biracial-identified targets. Future research could clarify whether discrepancies in Black people's perceptions of similarity between themselves and White-identified Biracial people are explained by perceptions of susceptibility to discrimination. These findings have implications for intraminority coalitions between monoracial and Biracial populations.

There are various reasons why Black people might be most likely to welcome Biracial people into their community when Biracial people identify as Black. Biracial people who choose a Black identity increase the size, scope, and political power of the Black community (Rockquemore & Laszloffy, 2003). Indeed, some Black people perceive Biracial people's identification as Black as important in promoting cohesion when counteracting racism towards African-descended people (Franco et al., 2019). However, Biracial people often opt for a Biracial

identity over a Black identity to reflect their heritage and experiences (Davenport, 2016).

Biracial people should understand that in choosing a Biracial identity over a Black identity, they may be perceived as less of an ingroup member by Black people (e.g., less perceived Black identity, less linked fate), and may subsequently be afforded fewer Black ingroup resources. Furthermore, in choosing a White identity, they position themselves as being least likely to receive ingroup status and resources within the Black community (Smith & Wout, 2019).

Overall, this research adds to the body of work addressing intragroup relations with liminal group members. Whereas previous research highlights the identity of a liminal group member as an important predictor of the degree to which they are considered a member of the ingroup (Chen et al., 2018; Smith & Wout, 2019), our research highlights the importance of identity in receiving ingroup benefits. We find liminal members can receive access to ingroup benefits, particularly when they identify with the ingroup. Also, our findings indicate that sharing an ingroup identity occurs on a spectrum such that when individuals identify partially with the ingroup, they may receive more benefits than when they do not identify with the ingroup at all. The identity of the liminal member is important because it confers information regarding similarity, shared identity, and linked fate between ingroup and liminal ingroup members. Lastly, the findings uniquely highlight linked fate as an underexplored mechanism explaining why liminal group members have differential access to group resources.

Limitations and Future Directions

There are some limitations to the generalizability of the findings. First, the studies focused on U.S. Black people's reactions to Black/White Biracial people and may not generalize to dynamics between other monoracial and Biracial groups or to other countries. For example, Asian people's reactions to Asian/White Biracial people differs from Black people's reactions to

Black/White Biracial people (Chen et al., 2019). Also, future research might examine Black people's responses to other African-descended Biracial groups (e.g., Black/Native American, Black/Asian), as reactions to Black/White Biracial people may not generalize to these groups (Garay & Remedios, 2021). For example, responses of empathy towards dual-minority Biracial people may differ because perceptions of shared experiences of discrimination drive perceptions of linked fate, and dual-minority Biracial people may be expected to experience high rates of discrimination. Relatedly, as these findings are shaped by Black people's minority status in the U.S. and their experiences with discrimination, White people's perceptions of Black/White Biracial populations may differ.

Whereas we examined Black people's reactions to Biracial people of varying racial identities, our study did not capture the full range of ways Biracial people identify. For example, Albuja et al. (2018) examined reactions to Biracial people changing their racial identity across contexts. Black people's empathy towards Black/White Biracial people with a malleable racial identity is a future avenue to investigate. Similarly, Biracial people may racially self-identify explicitly, as in the present vignettes, or may signal their identity indirectly through contextual cues such as friendship networks (Cooley et al., 2017). Future research should test whether Black people's empathy towards Biracial people follows the same pattern when racial identity is indirectly inferred.

Empathy was measured through self-report in response to a hypothetical scenario. Because the scales included limited reverse-scored items, the correlations may be artificially inflated due to response bias. These findings would be buttressed by investigations of activation of empathy-related neural circuits in reaction to our Biracial identity manipulations (see Luo et al., 2018; Xu et al., 2009). Relatedly, the mediation analyses presented here are cross-sectional

and therefore do not provide definitive evidence of causal relationships. The associations reported here may be caused by an unmeasured variable. For example, more positive contact with Black/White Biracial people may predict both greater perceptions of linked fate and greater empathy after discrimination. Moreover, future research could test additional mediators separate from those tested in this study, such as essentialist beliefs about race (O'Driscoll et al., 2021), or positive outgroup attitudes (Tarrant et al., 2009). For example, lower essentialism could be associated with greater empathy, as boundaries between ingroup and outgroup members may be seen less rigidly (O'Driscoll et al., 2021). Similarly, more positive attitudes toward Black/White Biracial people generally may be associated with greater empathy, as people typically have more positive attitudes towards people considered ingroup members. Further, because participants did not receive gender or phenotype information about the target, we are unable to test for systematic differences in empathy along these additional social categories. For example, participants may have inferred phenotype information in Study 2 because the Black/White Biracial target was discriminated against because of their racial background, even when they identified as Black or White. Given that phenotype is used as a cue to racial identity (Feliciano, 2016), and that women are more likely to identify as Biracial than men (Davenport, 2016), future research may benefit from testing how expressions of empathy may vary by phenotype and gender. Specifically, participants may extend less empathy in instances of incongruence between a target's expected identity based on their phenotype and their expressed identity or may infer that a target's self-identification is reflective of how they are treated in society. Similarly, female targets receive greater empathy than male targets, especially from women, so considering additional intersectional identities may advance the current findings (Stuijzand et al., 2016).

Lastly, Black people's extension of empathy was only tested in response to discrimination, and the results should not be generalized to other scenarios. Emphasizing Biracial people's susceptibility to discrimination increases the likelihood of Black perceivers categorizing Biracial people as an ingroup (Ho et al., 2017). Thus, it is possible that centering the empathy manipulation around discrimination may have led Black participants to feel more shared identity, similarity, and empathy with Biracial people than in other contexts (Ho et al., 2017). Yet, it should be noted that similarity ratings to Biracial targets were generally low, suggesting the context did not obfuscate perceived differences. Understanding intergroup empathy within this context is important given the prevalence of racial discrimination in the U.S. (Roberts & Rizzo, 2020), the salience of intergroup dynamics within the context of discrimination (Tajfel, 1970), and the importance of empathy in easing the negative effects discrimination (Stephan & Finlay, 1999). Future research might test Black people's empathy towards Black/White Biracial people in instances where discrimination is not salient.

Conclusion

The current studies add to the literature on ingroup resources afforded to liminal ingroup members. Generally, we find that Black people have high levels of empathy towards Black/White Biracial people undergoing discrimination, although empathy differs based on the perceived and actual racial identity of the Biracial person. Our findings are consistent with previous research emphasizing the importance of similarity and shared identity in determining empathy access (e.g., Johnson & Ashburn-Nardo, 2015; Johnson & Kaiser, 2013). We additionally highlight linked fate as an important, yet under-researched, mechanism that explains variations in empathy for liminal group members. Whereas Black/White Biracial people may choose a racial identity that resonates with their experiences, our findings indicate that their

choice of identity has implications for their access to ingroup resources within the Black community.

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Table 1*Correlations between Study 1 variables*

Measures	1	2	3	4	5
1. Perceived self-identification of Biracial People	5.0 (1.3)	0.63***	0.29***	0.39***	0.31***
2. Racial identification of Biracial People		5.3 (1.4)	0.30***	0.45***	0.30***
3. Perceived similarity			4.1 (2.0)	0.46***	0.40***
4. Linked fate				5.1 (1.2)	0.44***
5. Empathy					5.5 (1.1)

Note. *** $p < .001$. Means and standard deviations are included in the diagonal.

Table 2*Test statistics and descriptive statistics by experimental conditions for Study 2*

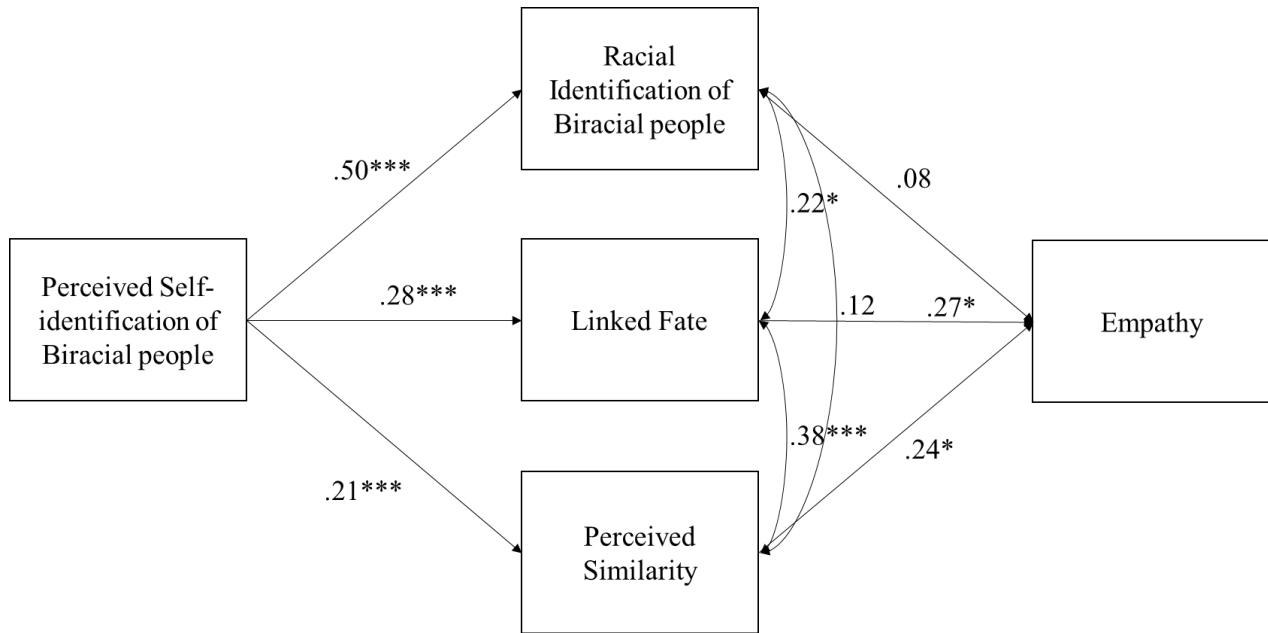
	Biracial- Identified	Black- Identified	White- Identified	<i>df</i>	<i>F</i>	<i>p</i>	η^2	95% Confidence Interval	
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)					<i>LL</i>	<i>UL</i>
Empathy	5.9 (1.1) ^a	6.0 (1.0) ^a	5.6 (1.1) ^b	581	8.12	< .001	.03	.01	.06
Perceived Similarity	2.7 (1.8) ^a	2.8 (1.9) ^a	2.2 (1.6) ^b	587	7.25	.001	.02	.004	.05
Racial Identification of Target	4.6 (1.0) ^a	5.1 (1.2) ^b	4.3 (1.1) ^c	587	28.27	< .001	.09	.05	.13
Linked Fate	5.0 (1.2) ^a	5.2 (1.2) ^b	4.9 (1.2) ^a	587	3.97	.019	.01	.000	.04
Coldness towards Biracial People	5.9 (1.2) ^a	6.0 (1.1) ^a	5.9 (1.2) ^a	587	0.46	.631	.002	.000	.01

Note. Different subscripts indicate a difference at $p < .05$. *M* = Mean. *SD* = Standard deviation.

df = Degrees of freedom. *LL* = Lower level. *UL* = Upper level.

Figure 1

Standardized path coefficients for the hypothesized model in Study 1

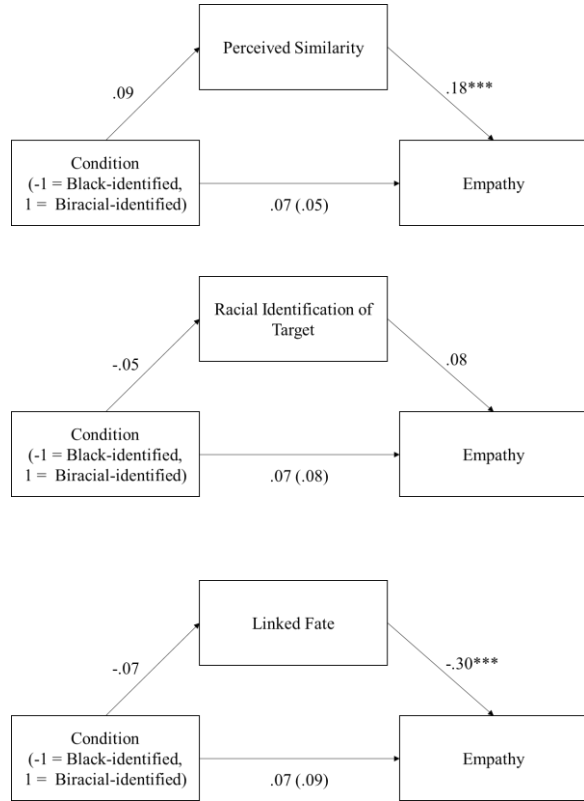


Note. $*p < .05$. $**p < .01$. $***p < .001$.

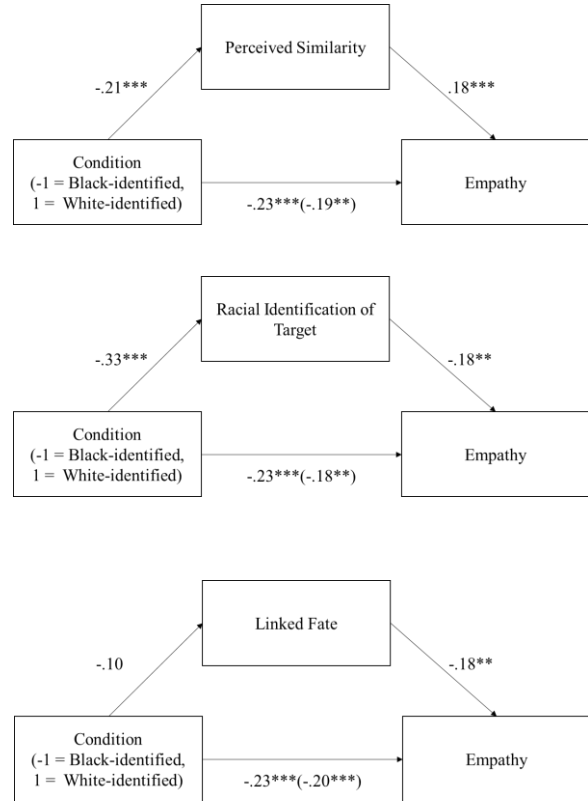
Figure 2

Standardized coefficients for the mediation models in Study 2

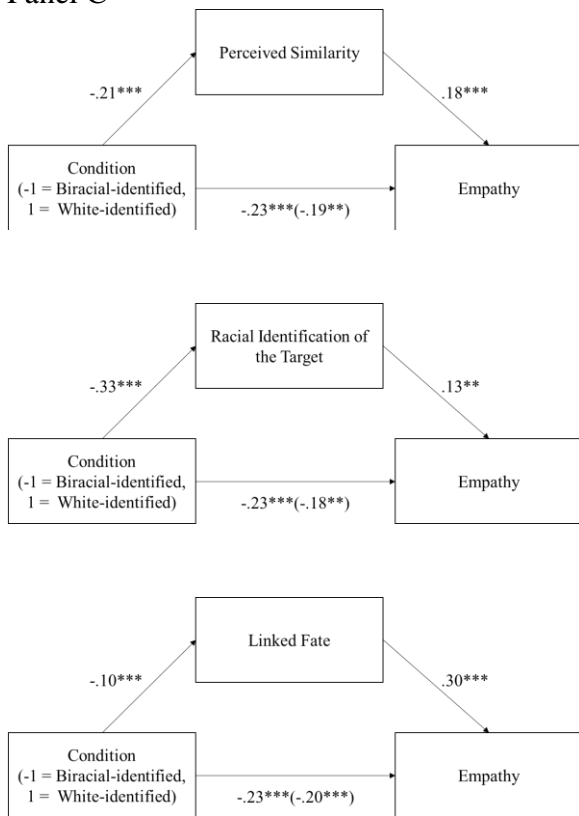
Panel A



Panel B



Panel C



Note. $*p < .05$. $**p < .01$. $***p < .001$. Panel A reports the mediation results for the Black- versus Biracial-identified contrast, while Panel B reports results for the Black- versus White-identified contrast and Panel C reports results for the Biracial- versus White-identified contrast.