# Not Quite White or Black: Biracial Students' Perceptions of Threat and Belonging Across School Contexts

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## Abstract

Stereotype threat posits that students who are members of negatively stereotyped groups in school should feel more threat and less belonging, especially in schools with large achievement disparities and low racial/ethnic minority representation. This research has focused primarily on the experiences of negatively stereotyped monoracial minority students, but for a biracial Black/White student who claims both a negatively stereotyped (e.g., Black) and a positively stereotyped (e.g., White) identity, do these outcomes vary? We assessed 1,399 biracial Black/White, monoracial Black, and monoracial White middle school students' perceptions of threat and belonging in school, across four lower-stereotype-salient schools (i.e., racially diverse schools) and seven higher-stereotype-salient schools (i.e., racially homogeneous schools). Biracial students reported a similar amount of threat across school contexts, whereas monoracial students' threat was differentially context dependent. These findings suggest biracial students may face unique identity-related threats in school and point to a need to develop supports specific to their experiences.

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> White people like to believe I'm Caucasian like them; I think it makes their life less complicated. But I don't identify as 100% white, so there always comes a time in the conversation or relationship where I need to "out" myself and tell them that I'm biracial.
>
> It's a vulnerable experience, but it becomes even harder when I'm with black Americans. It may sound strange—and there are so many layers to this that are hard to unpack—but I think what it comes down to is: they have more of a claim to "blackness" than I ever will and therefore have the power to tell me I don't belong, I'm not enough, that I should stay on the white side of the identity line. You know that question we always get asked? "What are you?" Well, I still don't know. I've never had an answer that I can say with confidence; I still don't know what I'm allowed to claim.

—Donnella (2017, para. 20-22)

Adolescence is a developmental stage when a sense of fit and belonging become increasingly important (Eccles et al., 1993; Yeager, Dahl, & Dweck, 2018). Teacher-student relationships become less close and potentially negative as disciplinary incidents increase in number and severity (Okonofua, Walton, & Eberhardt, 2016; Wentzel, 1997). Students also experience shifts in their social life, school life, and their academic expectations and aspirations as they develop a more stable concept of who they are and what they like (Cameron, Bachman, Alvarez, & Ruble, 2004; Hill & Tyson, 2009). Therefore, adolescence is not only a developmental time period in which one begins to more fully define one's sense of self, but it is also a time when considering one's level of belonging to various social groups and contexts makes someone especially vulnerable.

One group in particular who is known to face markedly high levels of social exclusion, belonging issues, and identity denial experiences compared with other racial/ethnic groups is the rapidly growing and yet understudied biracial demographic (e.g., Albuja, Gaither, Sanchez, Straka, & Cipollina, 2019; Cheng & Klugman, 2016; Gaither, 2015). For the sake of the present paper, we define biracial individuals as people who claim two racial or ethnic backgrounds. There is a growing literature highlighting the constant identity questioning that biracial individuals face (e.g., "What are you?"; Gaither, 2015; Gaskins, 1999; Townsend, Markus, & Bergsieker, 2009) and yet little

work has examined the role the educational context may play in shaping these types of experiences. Thus, knowing that adolescence is a particularly significant period of social and racial identity development (e.g., Umaña-Taylor et al., 2014), it is important to understand how racially motivated threats may uniquely affect biracial Black/White adolescents who can claim multiple racial ingroups that are simultaneously both negatively and positively stereotyped in the academic domain.

One commonly studied form of identity threat is stereotype threat—the experience of feeling anxiety or fear about confirming negative stereotypes about one's racial or ethnic group (Spencer, Logel, & Davies, 2016). There is a prevalent stereotype that associates Black students with being less academically competent and more likely to cause trouble in school than students from other racial groups, such as White students (e.g., Okonofua et al., 2016). Therefore, Black students may experience anxiety at school, potentially especially within predominately White school contexts, because they know peers and teachers may think about them through the lens of these stereotypes, which can lead to a weakened connection with peers and adults at school (Walton & Brady, 2017). In addition to undermining social belonging, stereotype threat also changes how individuals see themselves. Rather than a broad, multifaceted sense of self, someone experiencing stereotype threat instead is forced to focus an inordinate amount of attention on the negative perception others may have of them, which, in turn, creates a more narrow, constricted sense of self (Critcher & Dunning, 2015; Walton, Paunesku, & Dweck, 2012). For the example of Black students experiencing stereotype threat, they may feel like all they are seen as at school is the negative stereotype of a Black student rather than a broader individual composed of the many aspects of their background and identities, including positive associations with their Black identity or background.

However, one's school context can play an important role in making these stereotypes more versus less salient. Experimental laboratory research on stereotype threat suggests that numerical underrepresentation and knowledge of racial achievement disparities result in enhanced stereotype threat effects (Murphy, Steele, & Gross, 2007; Schmader, Johns, & Forbes, 2008). These findings are supported by field research studies in schools that demonstrate higher levels of stereotype threat for students from negatively stereotyped racial groups in school contexts in which there are relatively larger racial achievement disparities as well as relatively lower numbers of negatively stereotyped students (Dee, 2015; Hanselman, Bruch, Gamoran, & Borman, 2014). Therefore, based on this research, the present study defines higher-stereotype-salient schools as schools with relatively few students from
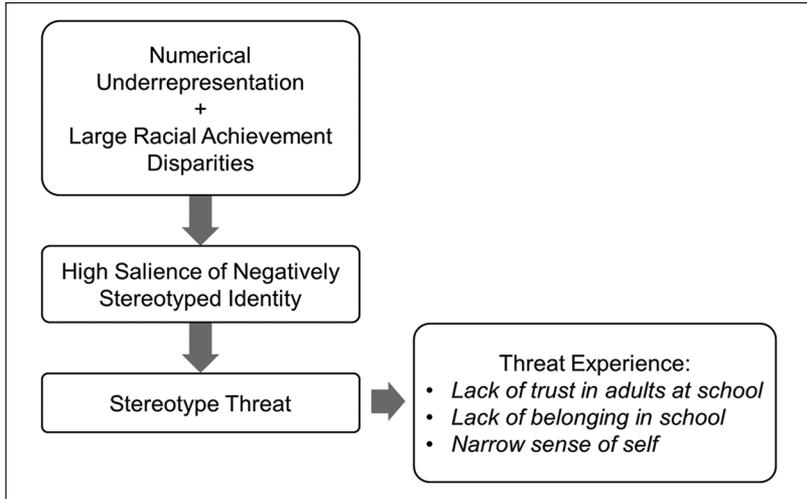
**Figure 1.** Theoretical model of how school context factors can lead to stereotype threat responses for students with identities that are associated with negative racial stereotypes.
*Note.* Negative stereotypes about Black students are predicted to be highly salient in schools in which they are underrepresented numerically and in which there are large racial achievement disparities. When a student's negatively stereotyped identity is made salient, they should experience stereotype threat, which is experienced in many ways, including feeling less trust in adults at school, a lack of social belonging at school, and a more narrow sense of self (i.e., focusing on being viewed through the lens of a negative stereotype). Conversely, White students are predicted to experience stereotype lift in higher-stereotype-salient schools and benefit from positive stereotypes about their racial group in those contexts.

negatively stereotyped racial groups and large racial achievement disparities (see Figure 1 for our theoretical model of this process).

In higher racial stereotype salient school contexts (i.e., schools with low numerical representation of Black students and large racial achievement disparities between Black students and other racial groups), we would expect Black students to experience increased stereotype threat, which would manifest in several ways (Schmader et al., 2008). There would be social consequences, such as strained relationships with and less trust in teachers at school because negatively stereotyped students would have increased anxiety that their teachers are biased against them (Cook, Purdie-Vaughns, Garcia, & Cohen, 2012; Gray, Hope, & Matthews, 2018), which often turns out to be true (Okonofua et al., 2016). Moreover, stereotype threat also undermines social belonging, such that students under threat simultaneously feel less accepted and more like outsiders (Walton & Brady, 2017). Finally, negatively

stereotyped students' sense of self is also narrowed under threat, such that they feel like their self-concept is largely composed of a negative stereotypes rather than a broad variety of components (Critcher & Dunning, 2015; Walton et al., 2012). In summary, students experiencing stereotype threat should feel less *school trust* (i.e., lower perceived trust and support from their teachers in school), less *social belonging* (i.e., lower acceptance in school), and a more *narrow sense of self* (i.e., a focus on a smaller number rather than a larger number of identities and backgrounds).

Compared with Black students, White students in higher-stereotype-salient school contexts would be expected to experience stereotype lift, which is a positive psychological experience resulting from being a member of a positively stereotyped group that is salient in a particular context (Walton & Cohen, 2003). Students who are members of positively stereotyped groups have greater confidence in their abilities and perform better when they are in contexts in which stereotypes comparing their group positively to other groups are salient (Clark, Thiem, & Kang, 2017; Watt et al., 2017).

## The Stereotype Threat Experience in Schools for Students With Multiple Racial Identities

To date, race has largely been considered an "either/or" category, meaning we know far less about the role that stereotype threat and school context may play for biracial students. In the United States, biracial people have historically been denied their biracial identity through the use of the "one drop rule" that has historically categorized biracial people as belonging to their lower status racial identity (i.e., a biracial Black/White person being categorized only as Black; Davis, 2010; Ho, Sidanius, Levin, & Banaji, 2011). Moreover, it was not until the year 2000 that the U.S. Census even allowed people to choose more than one race to describe their racial background (Jones & Bullock, 2012), despite the fact that this group has existed since slavery.

Research on stereotype threat has found that having multiple social identities accessible can be helpful for reducing threat. For example, when Asian women are primed with their gender identity (over their racial identity), they experience threat and perform worse on a math task due to negative stereotypes concerning women and math. However, when Asian women are primed with their Asian identity (over their gender identity), which is associated with positive math stereotypes, they instead experience stereotype life and perform better on that same math task (Shih, Pittinsky, & Ambady, 1999). Similarly, when college student-athletes are primed with their athlete identity, which is associated with negative academic performance stereotypes, they do worse on an academic task than when they are primed with their student identity (Yopyk & Prentice, 2005).

Consistent with these findings, biracial high school students who identify more with their negatively stereotyped (Black or Latino) racial background compared with their positively stereotyped background were found to have lower grade point averages (Herman, 2009). Moreover, another study suggested that for biracial Black/White individuals, being asked to focus on their White identity led to improved testing performance (i.e., positive stereotype lift effect), whereas being asked to focus on their Black identity led to underperformance (i.e., typical stereotype threat effect). Biracial Black/White participants not reminded of either racial identity, performed just as poorly as those in the Black identity focus condition, which suggests that the academically threatening testing context made one's Black identity more salient naturally (Gaither, Remedios, Schultz, & Sommers, 2015). Furthermore, another study found that reminding biracial individuals about their biracial identity specifically, compared with reminding monoracial individuals about one of their singular racial identities, led to decreased threat, suggesting that something about priming multiple identities at once may serve as a protective factor in some contexts (Shih, Bonam, Sanchez, & Peck, 2007).

Despite this finding, the existing literature remains mixed regarding whether identifying with multiple racial or ethnic groups is a negative or positive factor as it relates to stereotype threat and academic experiences. For example, biracial individuals often report being asked dehumanizing questions by peers, such as "What are you?" due to their racial ambiguity in appearance blurring society's fixed notions of racial group membership (e.g., Gaskins, 1999; Sanchez & Bonam, 2009; Townsend et al., 2009). In addition, biracial individuals may not be perceived as a full member of any of their racial groups by monoracial perceivers (e.g., biracial Black/White individuals may not be perceived as being "Black enough" or "White enough"). Thus, compared with monoracial individuals, biracial populations may experience an elevated risk of poor physical and mental health outcomes due to various stigmas associated with their multiple identities, including lower levels of psychological adjustment, in part, due to increased experiences of identity denial and questioning (Albuja, Sanchez, & Gaither, 2019; Bratter & Gorman, 2011; Cheryan & Monin, 2005).

Therefore, it is clear that both biracial children and young adults are often aware of and claim their multiple racial identities, and the salience of those identities may significantly influence feelings of threat and belonging. But to date, there has been little direct research comparing biracial and monoracial adolescent student populations and even less research centering on the role the school context itself plays in shaping the experience of stereotype threat, particularly during adolescence. One recent study found that the diversity of

students' particular friend groups mattered more than the diversity of students' classmates in predicting multiracial middle school students' racial identification (Echols, Ivanich, & Graham, 2018). However, this study did not take into account the racial make-up of the school overall. This is important to consider since other work shows that when a biracial student identifies more with one of their racial identities over the other, they are more likely to identify with the monoracial numerical majority group in their school (Nishina, Bellmore, Witkow, & Nylund-Gibson, 2010), suggesting that the racial make-up of the school context really should be considered when attempting to understand biracial students' sense of threat in school. Consequently, the current study builds on an emerging area of research that considers biracial students' broader social context with an emphasis on their friend groups in school (Cheng & Klugman, 2016; Echols et al., 2018). Here, we extend that work by including a consideration of whether the overall school context outside of one's friend networks shifts the salience of negative racial stereotypes, resulting in increased stereotype threat.

## Current Study

Using data collected from sixth and seventh grade students in all 11 middle schools in a Midwestern public school district, we explored whether biracial students' perceptions of threat in school varied by school context. We were interested in comparing the perceptions of Black and White monoracial students with biracial Black/White students because most research on stereotype threat has focused on comparing monoracial students with each other, ignoring students with more than one racial identity. In this study, we collected the three aforementioned measures of student's sense of stereotype threat: school trust (i.e., do students feel like their teachers and other adults at school are fair and supportive?), social belonging (i.e., do students feel accepted or like an outsider in school?), and a broad (vs. narrow) sense of self (i.e., do students have broad and multifaceted identities in school?), which has been shown to be constricted under stereotype threat (Critcher & Dunning, 2015).

With regard to the school context, the 11 schools were divided into two groups, based on the previously discussed characteristics found to be important for increasing racial stereotype salience and threat (e.g., Dee, 2015; Hanselman et al., 2014; Murphy et al., 2007). Four schools were in the lower-stereotype-salient group due to high numerical representation of academically negatively stereotyped students (e.g., Black and Latino students) and relatively lower racial achievement disparities. Seven schools were in the higher-stereotype-salient group due to low numerical representation of

**Table 1.** School Context Characteristics by Lower- and Higher-Stereotype-Salient Group.

| School characteristics | Range for schools within each group (average in parenthesis) | |
| --- | --- | --- |
| | Lower-stereotype-salient schools | Higher-stereotype-salient schools |
| Total number of students | 300-600 (423) | 300-700 (499) |
| *Ratio of positively to negatively stereotyped students* | 0.22-0.83 (0.64) | 0.83-4.44 (1.67) |
| *Ratio of White to Black students* | 0.43-1.75 (1.18) | 1.70-12.89 (3.08) |
| *% Positively stereotyped students* | 18%-45% (39%) | 45%-82% (63%) |
| *% Negatively stereotyped students* | 55%-82% (61%) | 18%-55% (37%) |
| *% White students* | 12%-36% (30%) | 37%-67% (52%) |
| *% Asian students* | 6%-13% (9%) | 3%-18% (10% |
| *% Black Students* | 21%-29% (26%) | 5%-23% (17%) |
| *% Latino students* | 14%-49% (26%) | 6%-25% (13%) |
| *% Other racial categories* | 4%-11% (10%) | 5%-9% (7%) |
| *% Receiving free/reduced price lunch* | 64%-88% (70%) | 18%-63% (42%) |
| Racial achievement disparity size | −0.70-15.30 (6.05) | 13.60-62.30 (33.97) |

*Note.* $N = 4$ lower-stereotype-salient schools and $N = 7$ higher-stereotype-salient schools. Racial achievement disparities were indicated by state test score disparities at the school (i.e., the percentage of students performing at an advanced level, as indicated by state standards). A zero score on the achievement disparity measure means no racial achievement disparity, whereas higher scores indicate a greater proportion of positively stereotyped students performing at an advanced level than negatively stereotyped students. Public records about the schools do not describe students in terms of specific biracial categories, so we report on general school characteristics using the racial categories given by schools here. Approximate numbers were used for school size to avoid identifying particular schools. The correlation between numerical representation of positively stereotyped racial group students in a school and the racial achievement disparity in a school was $r = .82$, $p = .002$, $N = 11$ schools, in our sample.

negatively stereotyped students and relatively higher racial achievement disparities (see Table 1 for descriptions of the school contexts in more detail).

## Predictions

*Predictions for biracial Black/White students.* Because of the flexibility available to students with multiple racial identities, we focus on three possibilities for how biracial Black/White students could experience stereotype threat across school contexts:

*Possibility 1—Negative stereotype salience hypothesis*: If the salience of negative racial stereotypes influences which identity is salient for biracial Black/White students, then they should show more threat in higher-stereotype-salient schools (i.e., their Black identity would be made more salient, increasing experienced threat) and reduced threat in lower-stereotype-salient schools.

*Possibility 2—Multiple identity protection hypothesis*: If having multiple racial identities cognitively accessible and available, including one associated with positive academic stereotypes, is protective, then biracial Black/White students should experience low threat across both school contexts.

*Possibility 3—Outsider hypothesis*: If biracial Black/White students are viewed as outsiders and not included by either of their monoracial White or Black peer groups, then they should experience threat in both school contexts because they will be viewed negatively regardless of the salience of negative academic racial stereotypes. In other words, biracial Black/White individuals would feel threatened in both school contexts.

*Predictions for monoracial students.* Although not the primary focus for this article, in line with past research regarding the impacts of stereotype threat and lift, we predicted that monoracial White students should show low threat in higher-stereotype-salient schools because those contexts promote positive stereotypes of White students. Conversely, when those positive racial stereotypes are no longer as salient (i.e., in lower-stereotype-salient schools), then White students should experience relatively higher threat because of the reduction in stereotype lift associated with being in contexts that emphasize positive academic stereotypes about White students (Walton & Cohen, 2003). On the contrary, monoracial Black students are expected to show more threat in higher-stereotype-salient schools, consistent with stereotype threat theory. Monoracial Black students should experience lower threat and nonbelonging in lower-stereotype-salient schools.

## Method

### Participants

This study included 1,399 middle school students (58% sixth grade, 42% seventh grade) from 11 middle schools in a public school district in the Midwest. Students were 49% female and 32% of students received free or reduced lunch at school, based on family income. Of these 1,399 students, 110 were identified through parental report as biracial Black/White, 280 as monoracial Black, and 1,009 as monoracial White. The response rate for White students was

65%, and the response rate for biracial Black/White and Black students was 57%. For response rate analyses, public district records do not allow us to disaggregate biracial Black/White and monoracial Black, so we cannot calculate the total number of biracial Black/White students in the district, responses which we would need to calculate a response rate for that group.

To participate in the study, parents or guardians were given written consent forms (either distributed at school events or sent home with students). Students were walked through assent information at school registration events and also in the classroom by trained research assistants. We received data only for students who assented to data collection and whose parents consented to data collection. Data were collected during the 2012-2013 and 2013-2014 school years.

## Procedure

In the last month of the school year, research assistants affiliated with this study administered a survey to students during their classes. The timing of the survey allowed us to assess students' perceptions of stereotype threat in school after nearly a full year in their school context. All survey scales used in this study were developed in previous research in which measures of students' stereotype threat that were created in non-school settings or that had been used with older students (e.g., Britt, Gowen, & Earles, 2011; Goodenow, 1993; Resnick et al., 1997; Walton & Cohen, 2007) were used as a starting point and then adapted for middle school students. Based on past research, these measures were found to be suitable for the present age group of our participant sample (Pyne, Rozek, & Borman, 2018).

The data presented here were collected in the context of a larger overall project that focused on understanding and promoting student success (see Pyne et al., 2018, which originally developed these measures). Here, we use a pre-determined subset of data from this larger project specifically related to measures of student stereotype threat in order to test our hypotheses about race and threat across school contexts. Controlling for differences in student experiences from this larger study does not change the overall pattern of any of the results.

## Measures

*Racial identification.* Racial group membership information was collected from school administrative records, as reported by the parents or guardians of the students through school demographic forms. Because we had student demographic information from administrative records, the school district did

not let us ask students to self-identify their own race/ethnicity. In addition, since the focus of this study was only on monoracial White, monoracial Black, and biracial Black/White students, we only have those data for our analyses. Thus, students' racial group membership as reported in this study does not reflect self-identified race by the students themselves, but rather racial group membership reported by a parent or guardian. On the school demographic forms, parents or guardians could check all that applied out of the following groups: White, Black/African American, Hispanic/Latino, American Indian, Asian, and Pacific Islander. From these responses, we coded students as (1) monoracial White if a parent or guardian only selected White; (2) monoracial Black if a parent or guardian only selected Black/African American; and (3) biracial Black/White if a parent or guardian selected both White and Black/African American but no other groups.

*School context.* Based on research on stereotype threat indicators in school contexts (e.g., Borman, Grigg, Rozek, Hanselman, & Dewey, 2018; Hanselman et al., 2014), we similarly classified the middle schools into two groups: (1) higher-stereotype-salient schools ($n = 7$), which had higher proportions of White and positively stereotyped students and relatively larger racial achievement gaps, and (2) lower-stereotype-salient schools ($n = 4$), which had higher proportions of Black and negatively stereotyped students and lower racial achievement gaps. In our sample, 1,025 students (53 biracial Black/White, 157 monoracial Black, and 815 monoracial White) were in higher-stereotype-salient schools and 374 students (57 biracial Black/White, 123 monoracial Black, and 194 monoracial White) were in lower-stereotype-salient schools. In higher-stereotype-salient schools, 63% of students were from non-negatively academically stereotyped groups (ranging from 45% to 82%), whereas 39% of students were from non-negatively academically stereotyped groups in lower-stereotype-salient schools (ranging from 18% to 45%). Racial achievement disparities were indicated by state test score disparities at the school (percentage of students performing at an advanced level, as indicated by state standards). A zero score on the disparity measure means no racial achievement disparity, whereas higher scores indicate a greater proportion of positively stereotyped students performing at an advanced level than negatively stereotyped students. In our sample ($N = 11$ schools), the correlation between numerical representation of positively stereotyped racial group students in a school and the racial achievement disparity in a school was $r = .82$, $p = .002$. Thus, these two indicators of stereotype salience were highly overlapping in the school district in this study (see Table 1 for descriptive statistics for the two groups of schools). To avoid the identification of individual schools, as requested by the district, some numbers are approximated.

*Survey measures.* The three scales used to assess student stereotype threat were school trust to measure contextual differences regarding student support from their teachers and other adults at school, social belonging to measure student's perceptions of being accepted within their school setting, and a broad sense of self to measure how expansive a student saw their own set of identities, which has been shown to be constricted under stereotype threat in past identity threat research (Critcher & Dunning, 2015; Walton et al., 2012). All items were rated on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale.

Using measures developed for adolescents by Pyne et al. (2018), school trust was assessed with three items (The teachers at this school treat students fairly; The adults at this school care about the students; At this school, students are supported; overall $\alpha$ = .78, monoracial White $\alpha$ = .78, monoracial Black $\alpha$ = .82, biracial Black/White $\alpha$ = .78).

Using measures developed for adolescents by Pyne et al. (2018), social belonging was assessed with four items (People in my school accept me; I feel comfortable in my school; I feel like I belong in my school; I feel like an outsider in my school [reverse-scored]; overall $\alpha$ = .82, monoracial White $\alpha$ =. 84, monoracial Black $\alpha$ =. 73, biracial Black/White $\alpha$ =. 77).

Using measures developed for adolescents by Pyne et al. (2018), a broad sense of self was assessed with two items (both reverse-scored, I could probably count on one hand the number of things that define who I am; I could describe who I am in a small number of words; overall $\alpha$ = .75, monoracial White $\alpha$ = .75, monoracial Black $\alpha$ = .67, biracial Black/White $\alpha$ = .74).

## Analytic Plan

For each of the three dependent variables, a 2 (school context: lower and higher-stereotype-salient schools) $\times$ 3 (racial group: biracial Black/White, monoracial Black, and monoracial White) ANOVA was run. Tukey's post hoc tests were run to follow-up when there were significant racial group differences. For significant interactions, simple effects tests were conducted to assess whether there were significant racial group differences within higher- and lower-stereotype-salient school contexts and whether there were significant effects of school context within each racial group. Effect sizes for racial group differences across all schools and also within lower- and higher-stereotype-salient school contexts are shown in Table 2. Figures 2 to 4 graphically display the significant mean differences by racial group and school context for each dependent variable, respectively.

**Table 2.** Effects Sizes for Racial Group Differences Across School Contexts.

| Outcome | Comparison | Across all schools | | | Lower-stereotype-salient schools | | | Higher-stereotype-salient schools | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Cohen's d | Confidence interval Lower limit | Upper limit | Cohen's d | Confidence interval Lower limit | Upper limit | Cohen's d | Confidence interval Lower limit | Upper limit |
| School trust | Biracial vs. White | **-0.30** | **-0.49** | **-0.10** | -0.17 | -0.46 | 0.13 | **-0.33** | **-0.61** | **-0.05** |
| | Black vs. White | **-0.24** | **-0.37** | **-0.11** | 0.05 | -0.18 | 0.28 | **-0.41** | **-0.58** | **-0.24** |
| | Biracial vs. Black | -0.04 | -0.26 | 0.18 | -0.20 | -0.52 | 0.11 | 0.07 | -0.24 | 0.38 |
| Social belonging | Biracial vs. White | **-0.24** | **-0.43** | **-0.04** | 0.01 | -0.28 | 0.31 | **-0.34** | **-0.62** | **-0.06** |
| | Black vs. White | -0.08 | -0.22 | 0.05 | **0.28** | **0.06** | **0.51** | **-0.27** | **-0.44** | **-0.10** |
| | Biracial vs. Black | -0.15 | -0.37 | 0.07 | -0.29 | -0.61 | 0.02 | -0.06 | -0.38 | 0.25 |
| Broad sense of self | Biracial vs. White | **-0.42** | **-0.61** | **-0.22** | **-0.37** | **-0.66** | **-0.07** | **-0.32** | **-0.60** | **-0.05** |
| | Black vs. White | **-0.66** | **-0.79** | **-0.52** | **-0.46** | **-0.69** | **-0.23** | **-0.73** | **-0.90** | **-0.55** |
| | Biracial vs. Black | **0.23** | **0.00** | **0.45** | 0.10 | -0.22 | 0.41 | **0.36** | **0.04** | **0.67** |

*Note.* In all schools: biracial N = 110, monoracial White N = 1,009, monoracial Black N = 280; in lower-stereotype-salient schools: biracial N = 57, monoracial White N = 194, monoracial Black N = 123; in higher-stereotype-salient schools: biracial N = 53, monoracial White N = 815, monoracial Black N = 157. Statistically significant differences (p < .05) are in bold.
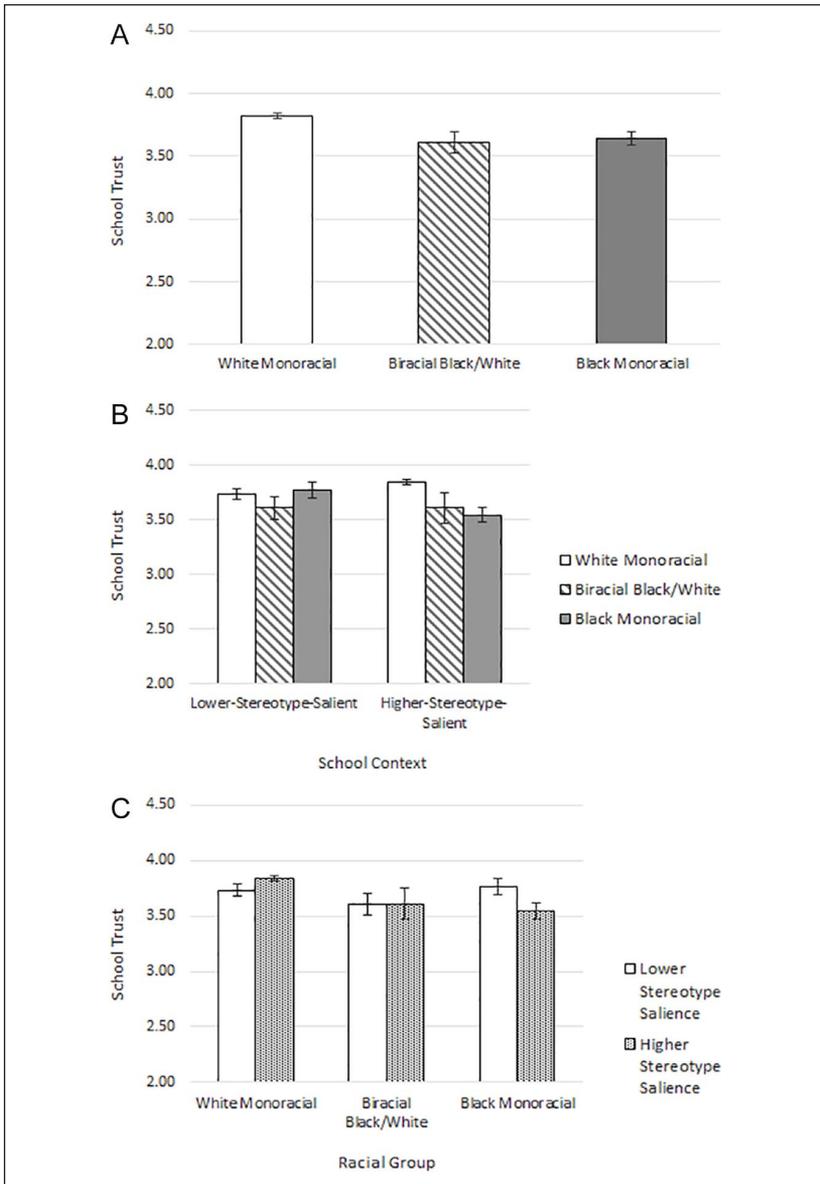
**Figure 2.** School trust by racial group across all schools (Panel A), compared by racial group within school contexts (Panel B), and compared by school

**Figure 2. (continued)**

context within racial groups (Panel C). Higher-stereotype-salient schools have lower proportions of negatively stereotyped students and relatively larger racial achievement disparities, whereas lower-stereotype-salient schools have higher proportions of negatively stereotyped students and relatively larger racial achievement disparities that favor White students. Measures were rated on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale. Error bars represent ±1 *SE* of the mean.

## Results

### Hypotheses

We hypothesized several possibilities for biracial Black/White students. If the stereotype salience of school contexts affects their experiences, then they should have low school trust, belonging, and a narrow sense of self in higher-stereotype-salient schools (*negative stereotype salience hypothesis*). If biracial Black/White are protected by their multiple identities, then they should show high school trust, belonging, and a broad sense of self across school contexts (*multiple identity protection hypothesis*). If biracial Black/White are viewed consistently as outsiders, then they should have low school trust, belonging, and a narrow sense of self across school contexts (*outsider hypothesis*).

### Descriptive Statistics

School trust (overall: $\bar{X} = 3.77$, $SD = 0.76$; monoracial White: $\bar{X} = 3.82$, $SD = 0.70$; biracial Black/White: $\bar{X} = 3.61$, $SD = 0.89$; monoracial Black: $\bar{X} = 3.64$, $SD = 0.86$) was significantly positively correlated with social belonging (overall: $\bar{X} = 3.92$, $SD = 0.75$; monoracial White: $\bar{X} = 3.95$, $SD = 0.74$; biracial Black/White: $\bar{X} = 3.77$, $SD = 0.84$; monoracial Black: $\bar{X} = 3.89$, $SD = 0.74$), $r = .47, p < .001$ (monoracial White: $r = .46, p < .001$; biracial Black/White: $r = .61, p < .001$; monoracial Black: $r = .42, p < .001$), and a broad sense of self (overall: $\bar{X} = 3.32$, $SD = 1.12$; monoracial White: $\bar{X} = 3.50$, $SD = 1.05$; biracial Black/White: $\bar{X} = 3.05$, $SD = 1.20$; monoracial Black: $\bar{X} = 2.79$, $SD = 1.15$), $r = .06, p = .02$ (monoracial White: $r = .07, p = .03$; biracial Black/White: $r = .03, p = .793$; monoracial Black: $r = -.05, p = .413$). Although the overall correlation between school trust and a broad sense of self was statistically significant with this large sample size, we note that the overall effect of $r = .06$ is small and driven by monoracial White students. Social belonging and a broad sense of self were not significantly correlated, $r = .02, p = .53$ (monoracial White: $r = .02, p = .534$; biracial Black/White: $r = -.07, p = .493$; monoracial Black: $r = -.01, p = .838$).
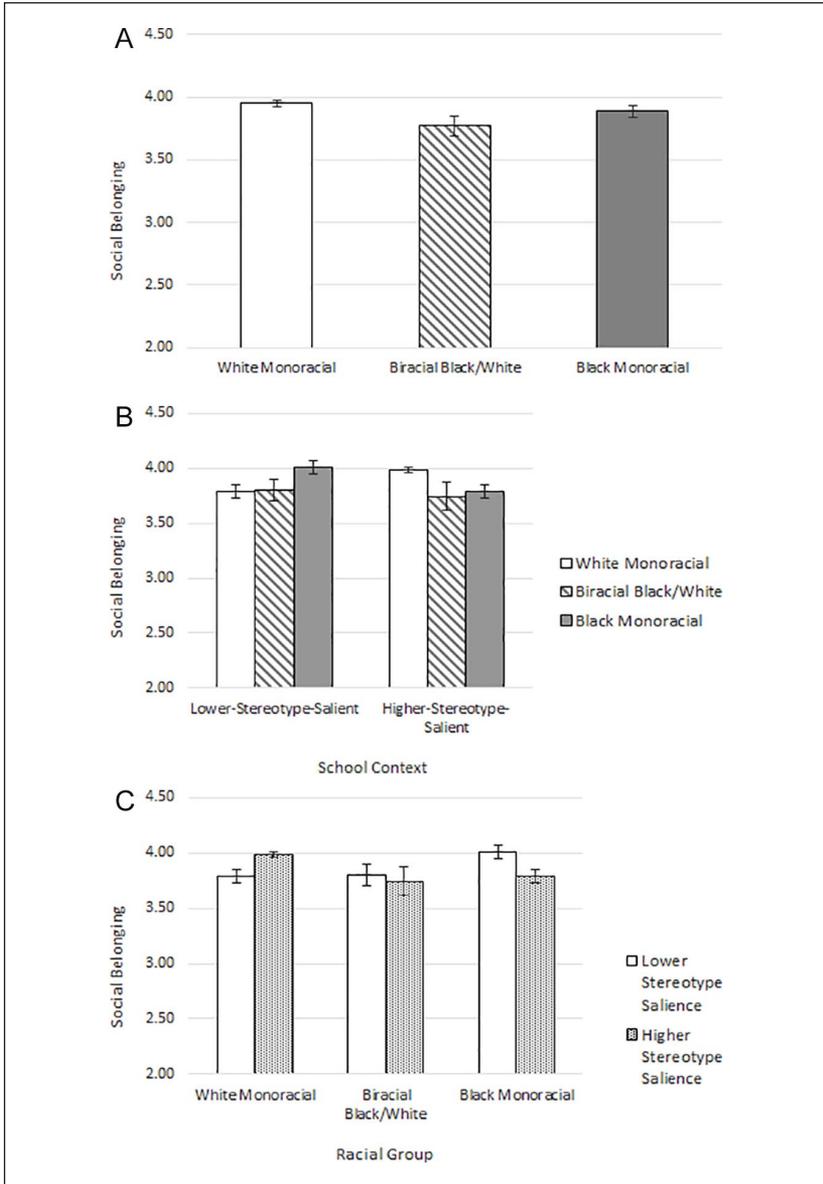
**Figure 3.** Social belonging by racial group across all schools (Panel A), compared by racial group within school contexts (Panel B), and compared by school

context within racial groups (Panel C). Higher-stereotype-salient schools have lower proportions of negatively stereotyped students and relatively larger racial achievement disparities, whereas lower-stereotype-salient schools have higher proportions of negatively stereotyped students and relatively larger racial achievement disparities that favor White students. Measures were rated on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale. Error bars represent ±1 *SE* of the mean.

## Results by Dependent Variable

*School trust.* There was no significant effect of school context, $F(1, 1393) = 0.41$, $p = .521$, there was a significant effect of racial group membership, $F(2, 1393) = 4.60$, $p = .010$, and a significant interaction between school context and racial group on school trust, $F(2, 1393) = 4.81$, $p = .008$. Tukey's post hoc tests showed that monoracial White students had significantly higher school trust than biracial Black/White ($p = .013$) and monoracial Black students ($p = .001$). Biracial Black/White and monoracial Black students did not significantly differ on school trust ($p = .905$).

Following up on the significant interaction, simple effects tests showed that there was a significant effect of racial group within higher-stereotype-salient schools, $F(2, 1022) = 12.12$, $p < .001$, but not lower-stereotype-salient schools, $F(2, 371) = 0.89$, $p = .410$. Within higher-stereotype-salient schools only, Tukey's post hoc tests showed that monoracial White students were marginally higher in school trust compared with biracial Black/White students ($p = .066$) and significantly higher in school trust than monoracial Black students ($p < .001$). There were no significant differences between biracial Black/White and monoracial Black students ($p = .859$). In addition, there were no significant differences for biracial Black/White students across school contexts ($p = .994$), whereas monoracial White students showed higher school trust in higher-stereotype-salient schools ($p = .047$), and monoracial Black students showed lower school trust in higher-stereotype-salient schools ($p = .030$).

These results generally support the stereotype salience hypothesis because both biracial Black/White and monoracial Black students showed lower school trust in higher-stereotype-salient schools, suggesting that contexts with salient racial stereotypes may undermine school trust for both groups of racial minority students who could be undergoing stereotype threat in those contexts (i.e., monoracial Black and biracial Black/White students), but not high status majority students (i.e., monoracial White students).
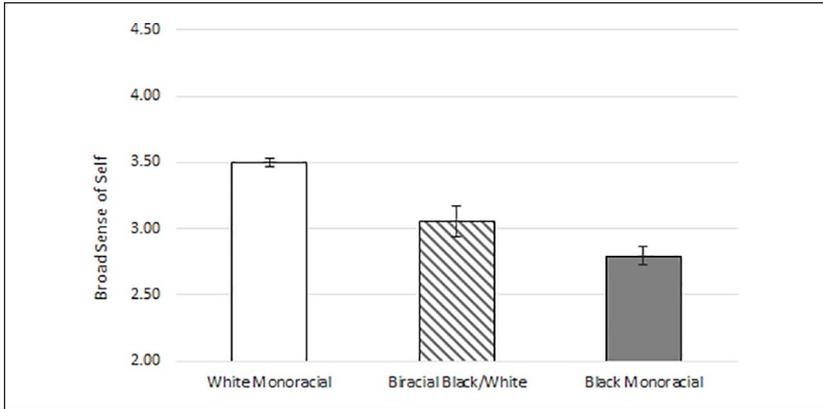
**Figure 4.** Levels of broad sense of self by racial group across all schools. Measures were rated on a 1 (*strongly disagree*) to 5 (*strongly agree*) scale. Error bars represent ±1 *SE* of the mean.

*Social belonging.* There was no significant effect of school context, $F(1, 1393) = 0.16$, $p = .688$, no significant effect of racial group membership, $F(2, 1393) = 1.33$, $p = .264$, but a significant interaction between school context and racial group on social belonging, $F(2, 1393) = 7.65$, $p < .001$.

Simple effects tests showed a significant effect of racial group within higher-stereotype-salient schools, $F(2, 1022) = 6.68$, $p = .001$, and lower-stereotype-salient schools, $F(2, 371) = 3.26$, $p = .039$. Within higher-stereo-type-salient schools only, Tukey's post hoc tests showed that monoracial White students had significantly higher social belonging than biracial Black/White students ($p = .049$) and significantly higher social belonging than Black monoracial students ($p = .007$). There were no significant differences between biracial Black/White students and monoracial Black students ($p = .895$). Within lower-stereotype-salient schools, monoracial White students showed no significant differences compared with biracial Black/White students ($p = .996$), but monoracial White students were significantly lower in social belonging than monoracial Black students ($p = .038$). There were no significant differences between biracial Black/White students and monora-cial Black students in lower-stereotype-salient schools ($p = .209$), although we note that biracial Black/White students showed descriptively lower levels of social belonging in lower-stereotype-salient schools compared with monoracial Black students ($d = -0.29$; see Table 2).

In addition, biracial Black/White students showed no significant differences across school contexts ($p = .720$). However, monoracial White students showed

higher social belonging in higher-stereotype-salient schools ($p = .001$), and monoracial Black students showed lower social belonging in higher-stereotype-salient school contexts ($p = .017$).

These results are mixed, but we believe are most consistent with the outsider hypothesis for two reasons. First, biracial Black/White students report no differences in belonging based on the school context, suggesting that they are viewed as outsiders regardless of the racial make-up of the school. Second, biracial Black/White students show nearly identical descriptively lower levels of belonging when compared with the racial group that reports the most belonging in each school context ($d = -0.34$ in higher-stereotype-salient schools and $d = -0.29$ in lower-stereotype-salient schools; see Table 2). Specifically, in higher-stereotype-salient schools, monoracial White students had the highest levels of belonging, and biracial students did not report fitting in as well as monoracial White students ($d = -0.34$), whereas monoracial Black students reported the highest levels of belonging in lower-stereotype-salient schools, and biracial students reported descriptively (although not statistically significantly) lower levels of belonging as compared with monoracial Black students ($d = -0.29$).

Thus, when considering the similarity of effect sizes, these results are equivocal support for the outsider hypothesis since biracial students report descriptively similar lower levels of belonging across both school contexts. However, when focused only on statistical significance, these results could be taken to support the stereotype salience hypothesis because both monoracial Black and biracial students show lower levels of belonging than monoracial White students in higher-stereotype-salient contexts, but in lower-stereotype-salient schools, biracial students do not significantly differ in their belonging from either monoracial group of students, although monoracial students significantly differ in their levels of belonging in lower-stereotype-salient schools. Monoracial Black and White students report lower belonging consistent with our predictions that monoracial White students would have lower levels of belonging in lower-stereotype-salient schools and monoracial Black students would have lower levels of belonging in higher-stereotype-salient schools.

*Broad sense of self.* There was a marginal effect of school context with students reporting having a broader sense of self in higher-stereotype-salient compared with lower-stereotype-salient schools, $F(1, 1393) = 2.89$, $p = .089$, a significant effect of racial group membership, $F(2, 1393) = 35.06$, $p < .001$, and no significant interaction between school context and racial group on broad sense of self, $F(2, 1393) = 1.43$, $p = .241$. Tukey's post hoc tests showed that monoracial White students had significantly broader sense of self than biracial

Black/White students ($p < .001$) and monoracial Black students ($p < .001$). There was a marginal effect showing that biracial Black/White students had a broader sense of self than monoracial Black students ($p = .079$). These results provide partial support for the multiple identity protection hypothesis because biracial Black/White students fell descriptively between monoracial White and monoracial Black students on a broad sense of self. Although marginal, these results suggest that a biracial student's dual racial identities may allow for a broader sense of self outside of their racial minority identity since they can claim more than one racial identity simultaneously.

## Discussion

The experience of biracial Black/White students is a unique case theoretically in which to study stereotype threat in school settings because it represents a group that identifies with two conflicting stereotyped identities that coexist within the same social domain (e.g., Black and White; Gaither, 2018). Despite the fact that the biracial demographic reflects the fastest growing youth population in the United States, examining their social and cognitive outcomes within educational settings has been largely understudied (but see Cheng & Klugman, 2016; Echols et al., 2018; Nishina et al., 2010, for exceptions). Here, we are among the first to directly compare biracial and monoracial adolescents' perceptions of threat in middle school in order to empirically test for racial group differences on stereotype threat outcomes while also considering the role of school context in those racial group differences.

Based on the previous literature on stereotype threat, we expected that schools with lower numerical representation of negatively stereotyped students and larger racial achievement gaps would make salient negative racial stereotypes and prime stereotype threat for students from negatively stereotyped groups (i.e., monoracial Black students in this study). Students from positively stereotyped groups (i.e., monoracial White students in this study) were expected to experience a stereotype lift in school contexts that made salient positive stereotypical racial comparisons for White students, whereas they would fare worse in school contexts in which they lost that stereotype boost. These hypotheses were generally supported in our analyses, particularly with the pattern of results on school trust and social belonging, further supporting the role that one's school context can play in shaping academic experiences.

Because of mixed findings in the literature on these issues for students with multiple racial identities, we predicted that biracial Black/White students would experience one of three possibilities: (1) they might experience threat in higher racial stereotype salient schools because those contexts would prime their negatively stereotyped identity (stereotype salience hypothesis); (2)

because of their multiple racial identities, which include one positively stereo-typed racial identity, biracial Black/White students might be protected from threat in higher racial stereotype salient schools (multiple identity protection hypothesis); and (3) biracial Black/White students might feel like outsiders across school contexts due to not being accepted by either group of monoracial peers (outsider hypothesis). Our results were mixed but showed support for different hypotheses, based on the outcome.

First, the stereotype salience hypothesis was supported for the school trust outcome. Both monoracial Black and biracial Black/White students reported low levels of trust in teachers and adults in stereotype salient schools only, which is consistent with the experience of stereotype threat interfering with forming positive relationships with teachers. That is, for biracial Black/White students and their monoracial Black peers, low trust could be because these school contexts made salient their negatively stereo-typed racial identity and because their teachers perhaps viewed them with racial bias (e.g., Okonofua et al., 2016).

The outsider hypothesis received mixed support for the student social belonging outcome. Biracial Black/White students generally reported (descriptively but not robustly) lower levels of social belonging than the racial group of students with the highest levels of belonging in each school context. That is, monoracial White students had the highest levels of belong-ing in higher-stereotype-salient schools, and biracial Black/White students had significantly lower levels of belonging than monoracial White students in that context. In the lower-stereotype-salient context, monoracial Black stu-dents had the highest levels of belonging, and biracial Black/White students had descriptively lower levels of belonging than monoracial Black students. Although this effect was not statistically significant, the size of the effect was similar to the size of racial difference effect in higher-stereotype-salient schools. One interpretation of this pattern of effects is that it is general sup-port for the outsider hypothesis since the effect sizes are similar and biracial Black/White students show a pattern of lower belonging in both school con-texts. Alternatively, when focusing on only statistically significant results, of which there is only one in the higher-stereotype-salient school context, this pattern of results could be interpreted instead as being in support of the ste-reotype salience hypothesis since both biracial Black/White students and monoracial Black students had significantly lower levels of belonging in higher-stereotype-salient schools. We think it is important to consider both of these possibilities and that future research should ascertain whether there is more support for one or the other.

Regarding the broad sense of self outcome, monoracial White students reported a broader sense of self than biracial Black/White students and

monoracial Black students. Biracial Black/White students and monoracial Black students did not statistically significantly differ from each other on this measure. That being said, we do want to point out that in Table 2, which shows whether there are racial differences on a broad sense of self within each school context, there is a suggestion that biracial Black/White students report a significantly broader sense of self in higher-stereotype-salient schools. The pattern of results in higher-stereotype-salient schools is that monoracial White students report the broadest sense of self, biracial Black/White students report the next broadest sense of self, and monoracial Black students report the least broad sense of self. The results in this particular school context could be considered to be in support of the multiple identity protection hypothesis since biracial students reported being in the middle on monoracial White and Black students on this outcome. We point out this pattern of effects, in part, in case future researchers are only working with students within higher-stereotype-salient schools.

Although we expected the school context to moderate racial differences on whether or not students reported having a broad or narrow sense of self, one possibility why we did not find these differences across school contexts is that individuals who have a negatively stereotyped identity feel a narrower sense of self regardless of school context because those stereotypes are so prevalent and pervasive. It may be that this measure simply captures a part of the experience of being a marginalized student and therefore is not sensitive to the specific school context, whereas school trust and social belonging at school may be more influenced by the school context itself due to those measures being specifically about relationships at school. It might also be that this measure of sense of self was too general. More specifically, this measure did not distinguish between what specific identities students had in mind when they responded to the questions. Thus, a narrow sense of self could well be positive if only a few positive identities are salient to a student. Future research should bolster this measure with additional items that gauge which specific identities are salient, as well as the valence of those identities.

In sum, we find some level of support for each of our hypotheses for biracial students, which emphasizes the complexity of studying students with multiple identities within different types of social contexts. In general, the most consistent effects were in higher-stereotype-salient schools with both monoracial Black students and biracial Black/White students showing less school trust, lower belonging, and a narrower sense of self than monoracial White students in that same context. In lower-stereotype-salient schools, the results were more mixed for biracial Black/White students. There were no statistically significant differences between biracial and monoracial students on school trust or social belonging in this context, and both biracial Black/

White and monoracial Black students reported a narrower sense of self than monoracial White students in this context. Descriptively, biracial Black/White students had less school trust ($d = -0.20$) and social belonging ($d = -0.29$) than monoracial Black students in lower-stereotype-salient contexts, and we believe these effect sizes are large enough for future studies to take note that there is a possibility that biracial students may feel like outsiders in this context as well.

Overall, these findings suggest that school context, in the form of both numerical representation and size of the racial achievement gap, is associated with perceptions of stereotype threat in schools for students differentially based on a student's racial group membership. As expected, monoracial White students felt the least threat in higher-stereotype-salient schools, which emphasizes positive stereotypes about their racial group. Monoracial Black students felt the least threat in lower-stereotype-salient schools, which are less likely to emphasize negative academic stereotypes about their racial group. Biracial Black/White students showed a mix of results across outcomes and school contexts. Because our results indicate that biracial Black/White students have different experiences of threat and belonging than their monoracial peers, it is especially important for research and in-school interventions to focus specifically on support systems targeting the unique threat and belonging issues biracial students may face, which may need to differ from interventions developed for monoracial students (e.g., Borman, Rozek, Pyne, & Hanselman, 2019; Brady, Cohen, Jarvis, & Walton, 2020; Rozek, Ramirez, Fine, & Beilock, 2019). Rather, interventions that help affirm the strengths of distinct student identities, backgrounds, and experiences might be one promising avenue for supporting biracial students who potentially have multiple negative associations with their various racial identities (Stephens, Hamedani, & Destin, 2014). In fact, past work shows boosts in flexible and inclusive thinking when simply reminding either adults or children about their multifaceted selves (Gaither, Fan, & Kinzler, 2020; Gaither et al., 2015). Moreover, other work highlights that students feel more support in challenging systemic racism over sexism and social justice in school contexts (Diemer, Kauffman, Koenig, Trahan, & Hsieh, 2006), supporting this notion of needing to make school contexts also more inclusive.

A limitation already noted is the fact that racial classifications for all students were parental or guardian reports and therefore did not necessarily reflect how the biracial student might actually self-identify. In fact, other work suggests that biracial identification in particular is less static and more fluid, meaning our measurements of biracial identification only at one time-point in the school year may not accurately reflect how a student identified at the time of the survey administration (Binning, Unzueta, Huo, & Molina,

2009; Echols et al., 2018; Terry & Winston, 2010). We also did not have more information about students' parents, such as which parent was Black or White and which parent was the primary caregiver for the student.

In addition, research needs to extend this line of work to other types of biracial individuals since identity complexities and experiences of stereotype threat and belonging are directly related to racial identity hierarchies. For example, in prior research, biracial students from higher status groups, such as Asian and White racial groups, were more likely to claim a biracial identity than biracial individuals who were part of lower status racial groups such as Black or Latino (Townsend, Fryberg, Wilkins, & Markus, 2012). Differing positions in racial identity hierarchies of different groups of biracial students could lead to distinct outcomes for students' experiences of stereotype threat as well as making the role of context in that threat more versus less influential.

And finally, given the relatively small number of schools in this study, these results serve only as an initial step toward understanding the effects of school context and composition on biracial students' stereotype threat. Future studies with larger samples of schools would strengthen these results and could use multilevel modeling to account for the nested data.

## *Practical Recommendations and Conclusions*

Based on these results, it is clear that the school context (i.e., the stereotype salience of the school context) should be accounted for when measuring experiences of stereotype threat and belonging for all students regardless of racial background. However, knowing that biracial youth are having distinct stereotype threat experiences compared with their monoracial counterparts, we urge researchers studying biracial youth to not only consider their racial background as a factor in your study design and analyses but also the social context in which you are studying that biracial individual. Moreover, although stereotype threat outcomes are associated with other academic outcomes, it is only one measurement of the adolescent experience, meaning these results should not be used to infer biracial students' overall life trajectories or profiles.

Relatedly, other work with adolescents suggests that greater racial diversity in middle school may also foster the development of more complex or inclusive social identities (Knifsend & Juvonen, 2014). Although we believe this is true generally, based on our study, we recommend that measures of a broad versus narrow sense of self be carefully interpreted since the specific identities salient in a particular context (and the valence of those identities) might be critical for understanding students' identity complexity.

It is also important that school demographic forms provide enough options for accurate self-identification. Asking students about their racial identity

directly may be a more accurate measurement of racial identification compared with parental report depending on a child's age. Despite the U.S. Census Bureau now allowing citizens to select more than one racial option (Parker, Morin, Horowitz, Lopez, & Rohal, 2015), many demographic forms used by hospitals, schools, and other institutions continue to allow for only single racial selections. Furthermore, the lack of inclusive racial options on these forms can contribute to issues in providing proper health care for patients in addition to proper support in classroom settings (Hasnain-Wynia & Baker, 2006; Woo, Austin, Williams, & Bennett, 2011).

All told, our findings suggest that educators and researchers should not assume that a student with multiple racial identities is going to experience school racially in the same way as either of their monoracial counterparts. Given that the number of biracial children in the country is only increasing, more fully understanding these differences is imperative as researchers and educators continue to seek out the best ways to give all students the most positive and effective school experience. Identifying how to make learning contexts more inclusive rather than exclusive clearly would benefit all students regardless of one's racial background.

## Author's Note

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