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Using National Data to Understand the Contextual Factors and Negative Experiences that Explain Racial Differences in the School Misbehavior of Ninth Grade Boys and Girls

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Abstract

The literature linking adulthood criminality to cumulative disadvantage and early school misbehavior demonstrates that understanding the mechanisms underlying student behavior and the responses of teachers and administrators is crucial in comprehending racial/ethnic disparities in actual or perceived school misbehavior. We use data on 19,160 ninth graders from the nationally representative High School Longitudinal Study of 2009 to show that boys' and girls' negative achievement and negative experiences with teachers relate more closely to school misbehavior than the contextual measures (e.g., negative peer climate, proportion Black) that have often been emphasized as most salient for misbehavior. Differences in negative achievement and experiences completely explain Black boys', Latinx boys', and Black girls' heightened levels of school misbehavior relative to White youth, and Asian boys' and girls' lower levels of school misbehavior. In contrast, differences in negative achievement and experiences only partially explain Latinx girls' higher levels of school misbehavior relative to White girls.

Keywords

delinquency; race; adolescence; teachers; peers; achievement

Introduction

While it may seem intuitive that the majority of school discipline comes in response to serious forms of misbehavior (i.e., fighting), less serious forms of misbehavior (i.e., tardiness, disrupting class) are the true source of disciplinary challenges within schools (Raffaele et al., 2003). Although these minor expressions of autonomy or boundary testing are a normative aspect of adolescence (Amemiya et al., 2020), research has consistently found racial disparities in school discipline (Welsh & Little, 2018). The simplest explanation for this is that racially minoritized students are engaging in more misbehavior, so they receive more discipline. However, a growing body of literature shows that racial disparities

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in school discipline cannot be explained fully by higher rates of misbehavior by minority students (Skiba et al., 2002, 2011). Instead, disciplinary actions may reflect the ways that racial bias and stereotypes influence disciplinary decision-making (Okonofua et al., 2016). As the potential for bias limits studies that use school discipline as a proxy for student misbehavior, fully understanding racial disparities in school misbehavior may require an expansion in how the construct is measured. This study addresses this limitation by incorporating students' perspectives of their own behavior alongside institutional perceptions of and responses to students' behavior.

A variety of student-level factors are shown to relate to misbehavior and school discipline. For instance, research has noted that youth with lower socioeconomic status (SES) and low-achieving students are disciplined more (Skiba et al., 2014aSkiba, Arredondo, & Rausch, 2014). Even still, the research suggests that the race effect exceeds that of the other student-level characteristics (Welsh & Little, 2018). Furthermore, Black and Latinx students are more likely to attend public and urban schools with higher shares of lower SES and racially minoritized classmates, all factors that relate to heightened misbehavior and discipline (Ksinan et al., 2019; Wang et al., 2010). In addition, many studies document how Black and Latinx youth have more negative experiences within schools than White and Asian youth in terms of achievement, school engagement, and student-teacher interactions. As such, research aimed at understanding racial differences in misbehavior should consider the typical student demographic and school-level factors, as well as students' negative experiences within schools.

To shed light on what might account for racial differences in school misbehavior, we use data on 19,160 ninth graders from the nationally representative High School Longitudinal Study of 2009 (HSLS), which includes rich perspectives from students, their parents, and school administrators. We lean on the criminological framework of strain theory to explore the possibility that negative experiences in school climate and teacher interactions can explain adolescent misbehavior, contributing to a creative framing of low achievement as a potential source of strain for adolescents. Moreover, because we cannot presume these processes occur monolithically, we conduct analyses at the intersection of race and gender, even including social groups at neglected points of intersection in this literature (e.g., Asian boys and Asian girls). By drawing on rich structural perspectives of the education system and our racialized society, we advance the literature on racial inequities in criminal justice outcomes, exclusionary discipline within schools, and educational outcomes.

Literature Review

School Misbehavior

School misbehavior includes cutting/skipping class, being late to class, being suspended, cheating, graffiti, fighting with peers or staff, bullying, and harassing classmates. Unlike more serious forms of misbehavior like selling drugs or fighting, minor forms of misbehavior like disrupting class or tardiness fall into a grey area that teachers and administrators must interpret to make disciplinary decisions (Raffaele et al., 2003). Schools usually address student misbehavior by removing students from the classroom, which can take the form of office referrals, suspension, or expulsion (Welsh & Little, 2018).

However, studies indicate that disciplinary decisions are influenced by various factors at both the student and school levels, including characteristics such as the student's race, SES, and academic achievement; the student's relationship with the teacher; and the school's urbanicity and school climate (Skiba et al., 2002; Welsh & Little, 2018). These factors may produce subjective interpretations of student behavior and racial disparities in school discipline (Amemiya et al., 2020; Okonofua et al., 2016; Welsh & Little, 2018). In fact, research has consistently demonstrated that Black and Latinx students are subjected to this type of discipline more frequently than their White peers (Welsh & Little, 2018).

Racial differences in school misbehavior may result from racial differences in school context and adolescents' negative experiences within school. The social control perspective proposes that individuals have a natural tendency towards selfish behaviors, including delinquency, a tendency that can only be curbed through the development of strong connections (i.e., bonds) with various social institutions (Hirschi, 1969). Hirschi (1969) identified four key elements of social bonding: attachment, commitment, involvement, and belief. These respectively relate to affective ties to significant others (teachers, peers), level of investment in conventional aspirations (academic achievement), participation in socially valued activities (attendance, sports), and acceptance of social rules as just and valid (Hirschi, 1969). General Strain Theory (GST), in contrast, frames delinquency as resulting from negative experiences with external factors that subsequently lead to a negative affective state, such as anger or depression (Agnew, 1992). Agnew (2001) expanded his theory, outlining the four categories of strain most likely to lead to crime: (1) the perception of strain as unjust; (2) high-magnitude strain; (3) strain associated with reductions in social control; (4) and strain that introduces pressure or incentives to engage in crime. Although these theories are often seen as conflicting, both offer a valuable lens to examine racial differences in adolescents' school misbehavior.

Given the complexities of disentangling perceptions of misbehavior and motivations for misbehavior, our study takes a unique approach. Our measure includes student reports of classroom behaviors (e.g., tardiness, not having class materials, not doing homework) that could be perceived as misbehavior, as well as parents' reports of being contacted by the school about their child's misbehavior (e.g., problem behavior, suspension, expulsion). By doing this, we overcome the limitations of only using school discipline as a proxy for misbehavior, triangulating the perceptions of the institution with the adolescents' own perceptions of their behavior. Our measure also captures a wide range of misbehavior, from minor (e.g., not coming to class with materials) to major forms that lead to suspension or expulsion.

Contextual Factors

The contextual factors contributing to perceived school misbehavior include both school climate and structure (Welsh et al., 1999; Wilcox & Clayton, 2001). A positive school climate may safeguard students from misbehavior or victimization (Astor et al., 1999), whereas schools with negative climates may increase student misbehavior through adolescents' negative experiences with peers (Astor et al., 1999). Considering structural characteristics, private schools are believed to foster more positive climates and academic

environments than public schools (Lleras, 2008). Similarly, the racial composition of schools' student bodies is one of the most consistent predictors of misbehavior (Skiba et al., 2014a; 2014b). However, rather than simplistically attributing higher levels of delinquency to schools' racial composition, it is important to note how schools' racial composition reflects structural racism. Decades of legalized discrimination (i.e., Jim Crow), discriminatory lending practices (i.e., redlining), and discriminatory policy decisions (i.e., urban renewal) have pushed many Black and Latinx people into neighborhoods that are uniquely disadvantaged (Massey & Denton, 1993), and into schools that are inequitably funded and staffed with teachers who often do not share the students' racial background and are likely to be implicitly or explicitly biased (Orfield et al., 2015). For instance, Black and Latinx youth are more likely than White and Asian youth to attend public rather than private schools, just as they are more likely to attend schools in urban spaces (Aud et al., 2010). We investigate how the racial inequities in school context that result from structural racism relate to racial differences in school misbehavior.

Adolescents' Negative Experiences within Schools

Racial differences in school misbehavior may also result from racial differences in adolescents' negative experiences within schools. Negative experiences with teachers may be especially salient for students' misbehavior, as teachers are central authorities in students' daily lives, making it difficult for students to avoid negative interactions (Agnew, 2010). Instances where students perceive unfair or unjust treatment, such as racial discrimination, can potentially weaken their bond to the teacher or school and increase feelings of anger, frustration, or embarrassment, ultimately increasing their misbehavior (Moon & Morash, 2013; Rebellon et al., 2012). It is also possible that students' lower academic achievement contributes to misbehavior, (Welsh & Little, 2018). Therefore, it is important to simultaneously consider students' perceptions of their teachers' fairness and egalitarianism when examining the contribution of negative achievement to students' misbehavior. Additionally, youth placed into lower-level coursework experience a host of adverse outcomes that place them on a trajectory of poorer social-cognitive development, including increased problems with adjustment, antisocial behavior, and emotional distress (Müller & Hofmann, 2016). A lower course placement that is inequitable, i.e., inconsistent with the student's level of coursework and performance in the previous year, may particularly heighten school misbehavior by negatively impacting students' sense of fairness.

Black and Latinx students may have more negative experiences within schools than White and Asian students, first, because of racist stereotypes that undermine teacher-student relationships (Okonofua et al., 2016). Indeed, research suggests implicit ways that Black and Latinx students are treated inequitably within schools. For instance, teachers provide less interaction, praise, and support to Black and Latinx students relative to White and Asian students (Musto, 2019). Teachers are also more likely to respond to normative misbehavior of Black and Latinx students with punishment (Amemiya et al., 2020). Moreover, biased assessments by educators can result in Black and Latinx student being placed into lower-level coursework compared to their White and Asian peers (Kaufman et al., 2008; Lopez, 2003), whereas Asian students are stereotyped as smart and hard-working in school (Martin, 2019). We consider the classic contextual contributors to misbehavior and delinquency

alongside nuanced measures of adolescents' negative experiences to delineate the factors that relate most closely to school misbehavior.

Drawing on the theoretical perspective of intersectionality, we view race and gender as mutually constructing categories that shape and influence systems of power (Collins, 2015). As structures play an important role in defining the experiences of women of color (Crenshaw, 2017), negative experiences within schools can have a particularly detrimental effect on girls of color. For instance, Black girls are stereotyped as loud and overbearing (Morris, 2007) and are five times more likely to be disciplined than White girls (Wallace et al., 2008). Studies also find that girls experience more negative emotions from academic failures than boys (Ellis et al., 2016), presenting the possibility of gender differences in how negative experiences within school relate to adolescents' school misbehavior. For these reasons, we consider school misbehavior at the intersection of adolescents' race and gender.

Data and Methods

HSLS, administered by the National Center for Education Statistics (NCES), investigates the trajectories of a nationally representative cohort of 21,444 adolescents in the 9th grade in 2009. Employing stratified random sampling, NCES began by recruiting public and private schools in all 50 states and the District of Columbia and then randomly sampling students from each schools' ninth-grade enrollment list, with 944 public and private schools ultimately included in the dataset (Ingels et al., 2011). We use data from the Wave 1 surveys of the adolescent, their parent, and their high school administrator. We also use the transcript data NCES collected in 2014 and adolescents' scores from the math test NCES administered in Wave 1. After excluding 110[1] adolescents with missing data on the dependent variable and excluding the 2170 adolescents of a race other than White, Black, Latinx, or Asian, our analytic sample includes 19,160 adolescents. Less than 10% of cases are missing on this study's measures, except for school administrator reports of negative peer climate (15%). We address missing values on independent variables with multiple imputation by the MICE system of chained equations (White et al., 2011). We set scales to missing for any adolescents with missing data on any one of the survey items used to construct the scale, as bias is a likely result of constructing "pro-rated" scales (Mazza et al., 2015). After using factor analysis and averaging to construct scales (survey questions and possible responses detailed in Online Tables 1 and 2), we standardize them to increase interpretability.

NCES' composite *race* variable is based on data from the Wave 1 student survey. We collapse categories to construct a four-category race variable: 1) White, 2) Black, 3) Latinx, and 4) Asian. Students dichotomously reported their *gender* in Wave 1. We constructed a scale measure of each ninth grader's *perceived school misbehavior* by averaging adolescents' and their parents' responses to four questions each (α = .71). It is important to note that this measure is intended to capture objective student misbehavior from a conceptual and theoretical standpoint. As stated before, we acknowledge the challenges inherent in accurately determining objective student misbehavior solely based on institutional responses like disciplinary actions. Consequently, to develop a more

[1]NCES requires that all unweighted frequencies be rounded to the nearest ten.

comprehensive albeit imperfect proxy for student misbehavior, we adopted an approach that incorporates both students' perceptions of their own behavior as well as institutional responses to their behavior. Adolescents reported the number of times they came to class without books/reading materials in the last six months of school. They also reported how often they go to class late, without a pencil or paper, or without their homework done. It is important to note that these behaviors do not represent a pure measure of misbehavior. There are a host of reasons beyond purposefully misbehaving (i.e., low-SES, problems at home, lack of transportation) that a youth may be exhibiting these behaviors. Yet, responses to these items do hang together ($\alpha = .71$) with the other forms of misbehavior in this scale. This may be due to the disparate discipline for minor classroom disruptions beginning in elementary school, it may be that the minority students have learned to interpret these types of behaviors as misbehavior. Parents reported how often they are contacted by the school about poor achievement, problem behavior, and poor attendance. Finally, parents reported whether their adolescent has ever been suspended or expelled; we recoded this measure to have the same range as the other items used to construct the scale.

We use these base year measures of school misbehavior rather than the measures from Wave 2 (when most of the sample was in the 11^{th} grade) for several reasons. First, the Wave 2 questions on more serious school misbehavior (e.g., arrest) were only asked of adolescents who had already dropped out of high school. Second, sample attrition is disproportionately evident among Black and Latinx adolescents such that focusing on the base year provides a more robust examination of this key population. Finally, lagged models suggested a high correlation between the two measures. In other words, adolescents who have misbehaved in Wave 2 are very likely also to have misbehaved in Wave 1, making it difficult to detect the contributions of context and adolescents' negative experiences. This also suggests that a cross-sectional approach is more appropriate than an analytic focus on changes in school misbehavior throughout high school, as school misbehavior is something that characterizes multiple years of adolescents' trajectories rather than something that changes substantively between the 9th and 11th grades. Moreover, the predictive power of 9th grade school misbehavior for later school misbehavior corresponds with research that finds that 9^{th} grade is a pivotal year for youth as they transition into high school and solidify their emerging young adult identity (Marshall, 2003). While we cannot claim causality, examining how adolescents' context and negative experiences relate to their school misbehavior during this pivotal year likely captures differences in students' experiences that were evident long before high school and that will continue to be a feature of their high school years.

We first measure contextual contributors to perceived misbehavior with categorical measures describing each adolescent's high school region, urbanicity, and type. We also use continuous measures describing the socioeconomic and racial composition of their schools' student bodies. Finally, we construct a scale measure of *negative peer climate* by averaging fourteen responses from school administrators ($\alpha = .89$), who indicated how often there is physical conflict among students, robbery or theft, student use of illegal drugs/alcohol while at school, sale of drugs on the way to or from school or on school grounds, student possession of weapons, vandalism, physical abuse of teachers, student verbal abuse of teachers, student in-class misbehavior, student acts of disrespect for teachers, student gang activities, student racial tension, and student bullying.

We measure each adolescent's negative experiences within school in terms of their teachers, math course placement, and achievement. We construct a scale measure of each adolescent's *negative experiences with their teachers* by averaging six responses from the Wave 1 survey of adolescents, three describing their 9th grade math teacher and three their 9th grade science teacher ($\alpha = .76$). They indicated whether their teacher treats students with respect (reverse-coded), treats every student fairly (reverse-coded), and treats some kids better than others. We measure adolescents' *negative experiences with math course placement* with three values—1) Advanced one or more levels, 2) Stagnant, 3) Demoted—by comparing the level of each 9th grader's math course to the level of math coursework they were in during the 8th grade. We considered adolescents who failed their eighth-grade math course to be in a level of math one level lower than they actually were. Lastly, we measure each adolescent's *negative achievement* by combining adolescents' grade point average in all their 9th grade coursework and their scores on the math test NCES administered to all respondents in 2009 (only subject tested). We average these measures to construct the scale after reverse-coding each of the two measures and then standardizing both measures. Exploratory analyses showed that this measure captures an aspect of adolescents' achievement distinct from the measure of 9th grade math course placement, with only a weak correlation between the two measures ($r = .28$). Typically, a measure of strain would include emotional variables to capture the students' negative social-psychological response to experiencing low achievement. This data, unfortunately, does not include the variables to conduct such an analysis. However, we have reverse-coded this measure because of our focus on the impact of negative achievement specifically.

Analytic Plan

First, to facilitate the interpretation of subsequent analyses, we use means and proportions to show baseline (i.e., unadjusted) racial differences in boys' and girls' school context and negative experiences; for estimates of the statistical significance of each bivariate relationship, we use gender-stratified regression models with race predicting each measure and White adolescents serving as the reference group. Next, to determine what relates most closely to school misbehavior for boys and girls (RQ1), we estimate gender-stratified linear regression models predicting school misbehavior with all measures. We also estimate squared semipartial correlations to more concretely evoke the proportion of variance in the dependent variable explained by each predictor (Peugh, 2010), with these correlations comparable across predictors unlike regression coefficients. Using Williams's (2003) PCORR2 package, we report the values in the 'SemiP^2' column of the output, i.e., the proportion of the variance in the dependent variable that is explained by each predictor alone after accounting for the contributions of the other predictors. Next, we use gender-stratified linear regression models to understand whether racial differences in school context and adolescents' negative experiences explain racial differences in boys' and girls' school misbehavior (RQ2). As specified in the HSLS users' guide (Duprey et al., 2018), we use Stata's survey procedure in all analyses to apply the Wave 1 student analytic weight, account for HSLS's complex survey design, and adjust standard errors for the clustering of students within schools. We use single-level models because statisticians increasingly argue that clustering standard errors is a sufficient means of addressing clustered data's violation of

regression modeling's independence assumption (Lucas, 2014), and because our analyses include no cross-level interactions.

Results

Table 1 provides population-estimate descriptive statistics and shows differences at the intersection of adolescents' race and gender in all measures. Black boys and Latinx boys are perceived to engage in significantly higher levels of school misbehavior (respectively, .51 and .42 SDs above the national average) than White boys (.12 SDs). In contrast, Asian boys are perceived to engage in significantly lower levels of school misbehavior (.05 SDs below average). Although racial disparities appear smaller among girls than among boys, Black girls and Latinx girls are perceived to engage in higher levels of school misbehavior (.07 and .12 SDs, respectively) than White girls (−.25 SDs) or Asian girls (−.33 SDs). The difference between Asian and White girls is not statistically significant.

Black boys and girls are most likely to attend high school in the South, whereas Latinx and Asian boys and girls are most likely to attend schools in the West (Table 1). The high schools of White boys and girls are primarily suburban, whereas the high schools of Black, Latinx, and Asian boys and girls are primarily urban. White and Asian boys and girls are more likely to attend Catholic or other private schools than Black and Latinx boys and girls. The mean percentage of students eligible for free/reduced lunch is lower at the high schools that White and Asian boys and girls attend than at the schools Black and Latinx boys and girls attend. Because US neighborhoods and schools are racially segregated, students of each race are more likely to attend schools with higher shares of fellow students of the same race. Finally, school administrators describe the peer climates at the high schools of Latinx, Asian, and Black boys and girls as more negative than the administrators at the high schools attended by White boys and girls.

Table 1 shows that, among boys, Black boys experience the highest average levels of negative achievement (.72 SDs), and negative experiences in terms of their teachers (.10 SDs), and their math course placement (.24 SDs). Asian boys, in contrast, experience the lowest levels of negative achievement (.49 SDs), and negative experiences in terms of their teachers (−.15) and their math course placement (−.14 SDs). Among girls, Latinx girls experience the highest levels of negative experiences in terms of their teachers (.09 SDs) and their math course placement (.15 SDs). Asian girls experience the lowest levels of negative achievement (−.70 SDs) and negative experiences in terms of math course placement (−.24 SDs). Black girls experience the highest levels of negative achievement (.47 SDs) among girls but the lowest levels of negative experiences with teachers (−.06 SDs).

Factors that Relate Most Closely to Adolescents' School Misbehavior

To understand the factors that relate most closely to school misbehavior for boys and girls (RQ1), Table 2 uses regression modeling to show which measures relate to adolescents' levels of school misbehavior independently of other measures and provides squared semipartial correlations for each measure. The largest squared semipartial correlations are bolded, indicating the measure that explains the most variation in adolescents' school misbehavior. Adolescents' negative achievement and experiences explain more variation in

school misbehavior than contextual factors for both boys and girls. In particular, negative achievement and negative experiences in terms of teachers retain significant and positive relationships with boys' and girls' school misbehavior, net of other measures of context and negative experiences. The substantive effects appear large, with a one SD increase in negative achievement relating to a .45 to .51 SD increase in school misbehavior, and a one SD increase in negative experiences with teachers relating to a .11 to .14 SD increase.

Explaining Racial Differences in School Misbehavior

Table 3 investigates the extent to which racial differences in context, achievement, and negative experiences explain racial differences in perceived school misbehavior (RQ2). Full models can be found in Online Table 3. Model B1 shows that, relative to White boys, reported levels of perceived school misbehavior are .40 SDs higher on average for Black boys, .30 SDs higher for Latinx boys, and .17 SDs lower for Asian boys. All three differences are statistically significant. In Model B2, introducing measures of school region, urbanicity, and school type decreases the coefficients for Black and Latinx boys, suggesting that Black and Latinx boys' lesser likelihood of attending Catholic or other private schools (as shown in Table 1) partially explains their heightened levels of perceived school misbehavior. The reduced coefficients in Model B3 suggest that differences in the composition of schools' student bodies also partially explain Black and Latinx boys' perceived higher levels of school misbehavior relative to White boys. The squared semipartial correlations in Table 2 suggest that it is differences in the socioeconomic composition of adolescents' schools (percent eligible for free/reduced lunch), rather than differences in the racial composition of adolescents' schools, that contributes more to explaining racial differences in adolescents' perceived school misbehavior. Model B4, in contrast, suggests that differences in schools' peer climate do not contribute much to racial differences in adolescents' perceived school misbehavior.

Model B5 in Table 3, finally, reaffirms findings in Table 2 on the salience of adolescents' negative achievement and experiences, over contextual factors, for adolescents' perceived school misbehavior; the differences for Black and Latinx boys relative to White boys are no longer statistically significant. While differences in context did not explain Asian boys' lower levels of perceived misbehavior relative to White boys (Models B1-B4), the Asian-White difference is also no longer significant once we account for differences in adolescents' negative experiences (Model B5). Table 3 also focuses on the extent to which contextual contributors and girls' negative achievement and experiences explain racial differences in girls' perceived school misbehavior (Models G1-G5). The patterns for girls are very similar to the patterns for boys, with the exception that Latinx girls' levels of perceived school misbehavior remain significantly higher on average than that of White girls, even after controlling on differences in contextual contributors and negative experiences (Model G5). In another exception, the difference in the perceived school misbehavior of Asian and White girls is not significant in unadjusted (G1) or adjusted (G2-G5) models.

Discussion

This study unites the literature that emphasizes the contributions of contextual and peer factors to adolescent misbehavior with the literature that emphasizes the contributions of adolescents' negative experiences (e.g., strain). Data from the large nationally representative HSLS shows that boys' and girls' negative achievement and negative experiences with teachers relate more closely to perceived school misbehavior than the contextual measures that have often been emphasized as most salient for perceived misbehavior. Girls with negative math course placement experiences also engage in more perceived school misbehavior, even after accounting for other types of negative experiences and contextual differences. Differences in these negative experiences completely explain Black boys', Latinx boys', and Black girls' heightened levels of perceived school misbehavior relative to White youth, and Asian boys' and girls' lower levels of school misbehavior. In contrast, differences in negative achievement and experiences only partially explain Latinx girls' higher levels of school misbehavior relative to White girls. These findings contribute to criminological theory by suggesting further evidence that lack of achievement and/or perceptions of unfair treatment are associated with misbehavior and, as such, that promoting fairer treatment may not only be a good end in itself but may also help to reduce the gap between groups' different levels of misbehavior.

Consistent with the previous literature, ninth grade Black and Latinx boys and girls are perceived to engage in higher levels of school misbehavior than White boys and girls, and particularly relative to Asian boys and girls. In line with research that notes that Black and Latinx youth experience more strain (Kaufman et al., 2008; Perez et al., 2008), our findings show that Black and Latinx boys and girls have higher levels of negative achievement and experiences than White boys and girls. Furthermore, racial differences in negative achievement and negative experiences with teachers completely explain the differences in perceived school misbehavior between Black and White boys and girls and between Latinx boys and White boys. Interestingly, adjusted results suggest that Asian adolescents engage in more perceived school misbehavior than expected, given their relatively low levels of negative achievement and negative experiences with teachers. Finally, Latinx girls were the only groups whose school misbehavior was not entirely accounted for by the measures included. It is possible that our measures do not capture all the types of negative experiences most salient for Latinx girls' school misbehavior. This distinction warrants future research attention.

Importantly, our findings show that negative achievement independently predicts adolescents' perceived school misbehavior and explains more variation in school misbehavior than contextual factors, negative experiences with teachers, and negative experiences with math course placement. Negative experiences with teachers are the next major contributor to adolescents' perceived school misbehavior. These patterns are consistent across ninth-grade boys and girls of all races. Achievement has often been framed in the previous literature as a measure of control rather than strain, as an indicator of adolescents' commitment, or lack thereof, to conventional goals. While our measure of achievement is not a true measure of strain, our findings support further inquiry into negative achievement as a potential source for strain. Moreover, framing low achievement as strain

for youth aligns with perspectives from the sociology of education literature. Being a student is a child's primary social identity (Dean & Jolly, 2012). Therefore, successfully fulfilling a primary social role is psychologically satisfying (Dean & Jolly, 2012), but access to high achievement is racially inequitable. Family socioeconomic status is the closest correlate of children's achievement levels (Reardon, 2011), and 32% of Black and 26% of Latinx children were 'poor' in the US in 2017, relative to only 11% of White and 10% of Asian children (McFarland et al., 2019). Moreover, schools have re-segregated, with the share of predominantly Black or Latinx increasing through the early 2000s (Fiel & Zhang, 2019).

Children are aware of these inequities (Ispa-Landa & Conwell, 2015; Shedd, 2015), with predominantly Black or Latinx schools far more likely to be labeled as 'low-performing' because of federal accountability emphases (Shifrer & Fish, 2020) and with public perceptions of these schools openly negative (Korver-Glenn, 2018; Ray, 2019). Moreover, Black and Latinx children who attend more racially diverse schools often bear witness to their White peers being disproportionately placed into higher level coursework while they endure the inferior curricula and pedagogy of lower-level coursework, with racial segregation essentially re-enacted within schools (Carbonaro, 2005). From this perspective, it makes sense that Black and Latinx youths' lower achievement frustrates and even angers them (Hanselman et al., 2014). Detaching from educational institutions, institutions that are not serving them, through school misbehavior, for instance, could be a natural defensive act (Dean & Jolly, 2012), or even an act of conscious revolution.

We find that differences in negative experiences with teachers explains more variation in adolescents' perceived school misbehavior than negative experiences with math course placement or contextual differences, regardless of adolescents' race or gender. This measure is the most conventional measure of strain, specifically referencing the degree to which adolescents perceive their teachers as fair and respectful of students. These findings are consistent with the previous literature that links teacher strain to school misbehavior (Moon & Morash, 2013; Rebellon et al., 2012). Okonofua et al. (2016) apply social psychological theories to describe a 'vicious cycle' in which racial disparities in school discipline occur as a result of teachers' racialized stereotypes and stigma, and then racially minoritized students' bias apprehension impairs teacher-student relationships, ultimately exacerbating racial inequities in educational outcomes. Furthermore, in our models that account for the contributions of other types of strain, negative peer climate does not retain an independent relationship with school misbehavior for boys and girls of any race. It is especially important to note that differences in negative peer climate contribute little to the Black-White differences in school misbehavior. Various studies emphasize the role delinquent Black peers play as a contributor to heightened levels of criminality among Black men (Evans et al., 2016; Stewart et al., 2002). Yet, we do not find negative peer climate salient, particularly after accounting for inequities Black and Latinx youth experience in learning opportunities.

In 2006, John Diamond introduced the term racialized educational terrain to understand the ways that multiple disadvantages accumulate to cause racial disparities in achievement. In this, he suggests that achievement disparities are derived from a complex interplay of structural, institutional, and ideological disadvantages. We propose that the racialized educational terrain may also impact perceived school misbehavior. For instance, our findings

show Black and Latinx youth not only attend schools (i.e., urban, public, % minority, % poor) that place them at higher risk for discipline but have higher levels of negative achievement and more experiences of unfair treatment from teachers as well. That this combination of factors explains racial differences in perceived school misbehavior points to the need to rethink how to address these disparities. Indeed, the push to promote race-neutral solutions to racial disparities can effectively uphold whiteness, obscuring the root causes of disciplinary disparities within schools (Bonilla-Silva, 2001; Cruz & Firestone, 2023). We may then be left focusing on how we can increase the cognitive and social skills of minority students to get them to meet the standard of whiteness (Okonofua et al., 2016). Instead, we need to rethink our educational spaces to recognize sociohistorical processes that have led to racial disparities, detach from ideologies that promote smartness and goodness as the standard, and dismantle power and privilege hierarchies in education (Cruz & Firestone, 2023).

Some limitations merit mention. The HSLS data did not consistently offer measures aligned with all tenets of GST. For instance, strain is often operationalized as instances of injustice. While our teacher and negative peer climate measures directly align with traditional GST framings, our measure of math course placement strain captures a more indirect form of injustice. Similarly, our measure of achievement strain captures broad structural injustices and lack of social control. Moreover, it is also important to note that the apparent effect of these different forms of strain may be partially shaped by the person reporting the strain. For instance, our measure of negative peer climate relies on school administrator reports, which may be inconsistent with ninth graders' perceptions of their peers. But our study is also strengthened by its reliance on reports from parents, school administrators, and adolescents themselves, with the triangulation of multiple perspectives perhaps increasing the validity of our measurement of adolescents' experiences. It is possible that the patterns we observe in the HSLS data would differ in more recent data, with the shift toward restorative justice and a more sensitive positive school climate overall, in many K-12 schools. Future research should extend this work once such data is available.

In other potential limitations, GST primarily operationalizes the negative emotions that mediate the relationship between strain and school misbehavior as frustration and anger. The closest measure available in HSLS is a parent's report of whether their ninth grader experiences anxiety or depression. Many of our measures are subjective rather than objective reports of adolescents' experiences. However, subjective reports may be the appropriate approach because if adolescents do not perceive something as unjust, they are unlikely to experience negative emotions and subsequent school misbehavior. Finally, we take a cross-sectional rather than longitudinal approach to capitalize on the best measures available in the dataset. Although we do not intend to draw causal conclusions, racial differences in negative experiences with achievement (i.e., racial achievement disparities) are evident by kindergarten and remain constant throughout youth's schooling careers, such that it is not unreasonable to theorize that racial differences in achievement and school misbehavior are mutually constitutive within the current structure of our education system (Cheadle, 2008). In fact, Morris and Perry (2016) use a large longitudinal dataset to conclude that one-fifth of Black-White differences in children's achievement can be attributed to Black children's disproportionate experiences of exclusionary suspension. In addition to considering racial

differences in intersection with adolescents' gender, this study contributes a focus on Asian boys and girls. By integrating ideas from both social control and general theories, this study demonstrates that adolescents' negative experiences relate much more strongly to their school misbehavior than contextual factors, especially negative experiences with teachers and achievement. This study also demonstrates how racial inequities in our broader society and in our schools are interconnected with racial inequities in our criminal justice system.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1.

Part 1 of 2: Means and Proportions Describing the Full Sample and Bivariate Differences by Race in Each Measure for Boys and Girls.

		Boys				Girls			
	Full Sample	**White**	**Black**	**Latinx**	**Asian**	**White**	**Black**	**Latinx**	**Asian**
Ninth Grader's School Misbehavior	**0.06 (1.00)**	**0.12 ref**	**0.51 *****	**0.42 *****	**−0.05 ****	**−0.25 ref**	**0.07 *****	**0.12 *****	**−0.33**
Contextual Contributors to School Misbehavior									
Region:									
Northeast	0.18	0.20 ref	0.11 ***	0.15	0.18	0.20 ref	0.18	0.12 ***	0.20
Midwest	0.22	0.29 ref	0.25 **	0.09 ***	0.15	0.29 ref	0.15 ***	0.09 ***	0.14
South	0.38	0.35 ref	0.55 **	0.34 ***	0.23	0.34 ref	0.61 ***	0.36 ***	0.24
West	0.22	0.15 ref	0.08 ***	0.41 ***	0.44 ***	0.17 ref	0.06 ***	0.43 ***	0.42 ***
Urbanicity:									
City	0.32	0.21 ref	0.40 ***	0.48 ***	0.48 ***	0.21 ref	0.47 ***	0.47 ***	0.48 *
Suburban	0.34	0.35 ref	0.32	0.31 ***	0.34	0.34 ref	0.28	0.34 ***	0.41 ***
Town	0.11	0.15 ref	0.09	0.06 ***	0.06	0.15 ref	0.09	0.06 ***	0.02 ***
Rural	0.23	0.29 ref	0.18	0.15 ***	0.12 ***	0.30 ref	0.16	0.14 ***	0.09 ***
School type:									
Public	0.93	0.91 ref	0.96 *	0.97 ***	0.92 *	0.90 ref	0.97 ***	0.95 *	0.91
Catholic	0.04	0.05 ref	0.03 *	0.02 ***	0.02 *	0.05 ref	0.02 ***	0.03 *	0.03
Other private	0.03	0.05 ref	0.01 ***	0.01 ***	0.06	0.05 ref	0.01 ***	0.02 ***	0.06
Percent students eligible for free or reduced lunch									
Quartile 1 (least) (ref)	39.15 (25.15)	31.34 ref	52.75 ***	51.56 ***	35.42	30.81 ref	54.23 ***	48.90 ***	30.73
Contextual Contributors to School Misbehavior, continued									
Percent students Black	15.64 (18.67)	10.46 ref	39.59 ***	14.50 **	12.39	10.01 ref	40.31 ***	13.52 ***	12.54
Percent students Latinx	18.63 (20.30)	9.96 ref	13.33 *	40.16 ***	23.31 ***	9.67 ref	17.46 ***	4.75 ***	22.81 ***
Percent students Asian	4.09 (7.12)	2.94 ref	2.86	5.74 ***	15.74 ***	2.84 ref	2.55	5.93 ***	17.05 **
Negative peer climate	0.15 (1.00)	0.02 ref	0.28 **	0.43 ***	0.35 *	0.02 ref	0.15	0.34 ***	0.29

		Boys				Girls			
	Full Sample	**White**	**Black**	**Latinx**	**Asian**	**White**	**Black**	**Latinx**	**Asian**
Ninth Grader's School Misbehavior	**0.06 (1.00)**	**0.12 ref**	**0.51 *****	**0.42 *****	**−0.05 ****	**−0.25 ref**	**0.07 *****	**0.12 *****	**−0.33**
Adolescents' Negative Experiences									
Negative experiences with teacher	0.03 (1.00)	0.05 ref	0.10	0.05	−0.17 **	0.00 ref	−0.06	0.09 *	−0.03
Negative experiences with 9th math math course placement	0.02 (1.00)	0.03 ref	0.24 **	0.12	−0.14 **	−0.10 ref	−0.03	0.13 ***	−0.24 *
Negative experiences with achievement	0.10 (0.88)	−0.01 ref	0.72 ***	0.48 ***	−0.49 ***	−0.20 ref	0.47 ***	0.32 ***	−0.70 ***
Adolescents (n)	19,160	5,990	1,130	1,750	840	5,820	1,060	1,740	820
Proportion of population		0.58	0.13	0.25	0.04	0.56	0.16	0.24	0.04

Source: US Department of Education, National Center for Education Statistics, "The High School Longitudinal Study of 2009" 2009. Note: Standard deviations in parentheses below means. ref= reference group.

*** $p < 0.001$

** $p < 0.01$

* $p < 0.05$.

Table 2.

Factors that Relate Most Closely to School Misbehavior for Ninth Grade Boys and Girls (RQ1) Based on Estimates from a Linear Regression Model with Standard Errors Clustered at the School and Squared Semipartial Correlations (SemiP^2).

	Model 1: Boys			Model 2: Girls		
	B	**(SE)**	**SemiP^2**	**B**	**(SE)**	**SemiP^2**
Contextual Contributors to School Misbehavior						
Region (ref=Midwest):			0.0003			0.0008**
Northeast	0.00	(0.05)		−0.09*	(0.04)	
South	0.05	(0.04)		−0.01	(0.03)	
West	0.01	(0.05)		0.01	(0.04)	
Urbanicity (ref=Suburban):			0.0000			0.0001
City	0.01	(0.04)		0.03	(0.03)	
Town	−0.10*	(0.05)		−0.01	(0.04)	
Rural	−0.05	(0.03)		−0.07*	(0.03)	
School type (ref=Public):			0.0000			0.0000
Catholic	−0.17**	(0.05)		−0.19***	(0.05)	
Other private	0.02	(0.07)		0.05	(0.06)	
Percent students eligible for free or reduced lunch	0.00 0.00	(0.00)	0.0005	0.00	(0.00)	0.0016*
Percent student Black	0.00	(0.00)	0.0000	0.00	(0.00)	0.0002
Percent students Latinx	0.00	(0.00)	0.0003*	0.00	(0.00)	0.0002
Percent students Asian	0.00	(0.00)	0.0003*	0.00	(0.00)	0.0001
Negative peer climate	0.01	(0.02)	0.0003*	0.02	(0.02)	0.0001
Adolescents' Negative Experiences						
With teachers	0.14***	(0.01)	0.0159***	0.12***	(0.01)	0.0139***
With math course placement	0.02	(0.02)	0.0008**	0.04*	(0.02)	0.0010***
With achievement	0.51***	(0.02)	0.1461***	0.44***	(0.02)	0.1320***
Constant	0.14**	(0.04)		−0.14***	(0.05)	

Source: US Department of Education, National Center for Education Statistics, "The High School Longitudinal Study of 2009" 2009.

Note: The results for the predictors with the two largest squared semipartial correlations (SemiP^2) for boys and girls are bolded.

*** $p < 0.001$

** $p < 0.01$

* $p < 0.05$.

Table 3.

Explaining Racial Differences in Ninth Graders' School Misbehavior (RQ2) - Linear Coefficients from Regression Models with Standard Errors Clustered at the School Level.

	Boys									
	Model B1		Model B2		Model B3		Model B4		Model B5	
	B	(SE)	B	(SE)	B	(SE)	B	(SE)	B	(SE)
Adolescent's Race (ref=White):										
Black	0.40***	(0.06)	0.36***	(0.06)	0.31***	(0.06)	0.31***	(0.06)	0.02	(0.06)
Latinx	0.30***	(0.04)	0.25	(0.04)	0.18***	(0.04)	0.18***	(0.04)	0.00	(0.04)
Asian	−0.17**	(0.06)	−0.20***	(0.05)	−0.22**	(0.05)	−0.22**	(0.06)	0.06	(0.05)
	Girls									
	Model G1		Model G2		Model G3		Model G4		Model G5	
	B	(SE)	B	(SE)	B	(SE)	B	(SE)	B	(SE)
Adolescent's Race (ref=White):										
Black	0.32***	(0.04)	0.27***	(0.04)	0.16***	(0.04)	0.16***	(0.04)	−0.02	(0.04)
Latinx	0.37***	(0.04)	0.33***	(0.04)	0.27***	(0.04)	0.27***	(0.04)	0.08*	(0.04)
Asian	−0.08	(0.08)	−0.11	(0.07)	−0.07	(0.08)	−0.07	(0.07)	0.13	(0.07)
Covariates Included in Each Model										
Contextual Contributors to School Misbehavior										
Region							x	x	x	x
Urbanicity							x	x	x	x
School type							x	x	x	x
Percent eligible for free or reduced lunch								x	x	x
Percent student Black								x	x	x
Percent students Latinx								x	x	x
Percent students Asian								x	x	x
Negative peer climate per administrator									x	x
Adolescents' Negative Experiences										
Negative experiences with 9th math course placement										x
Negative experiences with achievement										x

	Boys									
	Model B1		Model B2		Model B3		Model B4		Model B5	
	B	(SE)	B	(SE)	B	(SE)	B	(SE)	B	(SE)
Negative experiences with teachers										x

Source: US Department of Education, National Center for Education Statistics, “The High School Longitudinal Study of 2009” 2009. Note: Full models in Online Tables 3 and 4.

*** $p < 0.001$

** $p < 0.01$

* $p < 0.05$.