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Centering Racism to Examine School Safety for Black High School Students

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Edwards, Elianny C

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Centering Racism to Examine School Safety for

Black High School Students

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Education

by

Elianny Camilo Edwards

2022

ABSTRACT OF THE DISSERTATION

Centering Racism to Examine School Safety for

Black High School Students

by

Elianny Camilo Edwards

Doctor of Philosophy in Education

University of California, Los Angeles, 2022

Professor Sandra H. Graham, Chair

Research has well documented the ways that race and culture impact how youth experience and navigate school. Even so, frameworks and measures for assessing school climate and safety remain largely colorblind and have yet to operationalize the impact of institutional racism on Black youths' feelings of school safety. This dissertation interrupts colorblind discourse of school climate and safety to address institutional racism in schools as a threat to Black youth. The first aim of this dissertation was to use a traditional single-item measure of school safety to highlight racial-ethnic disparities among 9th grade high school youths. The second aim was to show how applying a racial lens to assessing Black youths' feelings of school safety can provide novel and valuable insight into relevant factors that influence the safety of Black youth in school—factors that would otherwise go unnoticed via traditional colorblind measures of school safety.

Aims were fulfilled using a quantitative approach across two cross-sectional studies. Data for the studies came from the 2017-2018 and 2018-2019 high school administration of the California Healthy Kids Survey (CHKS), an anonymous comprehensive survey of school climate and safety, student wellness, and youth resiliency. Study 1 used multilevel modeling to examine the relationship between race-ethnicity and feelings of school safety, as well as the moderating effect of different student-level and school-level factors. Student-level factors included sex, socioeconomic status, and different measures of social-emotional and physical experiences at school. School size and racial-ethnic diversity were examined as school-level factors. The analytic sample consisted of 337,484 youth of diverse racial-ethnic backgrounds (Black/African American= 4.1%, White=21.3%, Latino=47.2%, Asian=18.8%, Multi-Racial=6.0%, and Other Race-Ethnicity=2.5%).

Study 2 used an analytic sample of only Black 9th grade students (n=877). Drawing from Edwards (2021) Intersectional Ecological Framework for Defining School Safety for Black Students, Study 2 used a racial lens to reconfigure items from different measures of the CHKS to capture some of the racialized experiences of Black youth in school. Restructured items were used in a confirmatory factor analysis (CFA) examining Black Student Safety as a higher-order latent construct with four-factors: racial-cultural safety, academic safety, physical-environmental safety, and perceptions of school police. Multilevel modeling was then used to test the extent to which the new higher order construct predicted important outcomes for Black youth including perceptions of caring relationships at school, academic motivation, and goals and aspirations.

Results from Study 1 showed that Black 9th grade students felt significantly less safe at school than their White peers. Further, the effect of race-ethnicity on feelings of school safety was significantly moderated by sex, violent victimization, and academic motivation. Results for

the CFA in Study 2 confirmed the higher-order structure of Black Student Safety. As an aggregate construct Black Student Safety significantly predicted Black youths' feelings of school safety. Examining its' individual factors showed that racial-cultural, academic, and physical-environmental safety were stronger predictors of caring relationships, academic outcomes, and goals and aspirations for Black youth than the single-item measure of school safety. Together, findings from this dissertation emphasize a need for more comprehensive, multidimensional frameworks and instruments for assessing the safety of Black youth in schools.

Key Words: school safety, Black students, race, institutional racism, Black student safety

This dissertation of Elianny Camilo Edwards is approved.

Rashmita S. Mistry

Pedro Antonio Noguera

Ron Avi Astor

Mark P. Hansen

Sandra H. Graham, Committee Chair

DEDICATION

To my dearest Emory and Evan,

may you find genuine love and inspiration everywhere you go.

University of California, Los Angeles

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ACKNOWLEDGEMENTS

Greylock ABC—you are my family. Teachers and life-long friends from The Mott Hall School, and all the "cool nerds" I've been blessed to teach coast to coast—you will live inside my heart.

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VITA

EDUCATION

March 2019	**Master of Arts in Education**
	Human Development & Psychology Division
	University of California Los Angeles, Los Angeles, CA
May 2011	**Bachelor of Arts**
	Clinical Psychology and Child Development
	Tufts University, Medford, MA

ACADEMIC AWARDS & RECOGNITIONS

2021-2022	Inaugural UCLA ED&IS Award for Black Excellence
2021-2022	UCLA Dissertation Year Fellowship
2020-2021	Diversity Scholarship for ICPSR Summer Program at University of Michigan
2018-2019	Hoyt Family Scholarship Fellow
2017-2018	Lawrence W. Erickson Memorial Fellow
2017-2018	UCLA Research & Inquiry Conference Poster Award
2017-2018	Graduate Summer Research Mentorship Award
2016-2017	Graduate Summer Research Mentorship Award

RESEARCH EXPERIENCE

2021-2022	**Graduate Researcher for the Office of the Wasserman Dean**
	Initiative: Promoting diversity and inclusion and increasing racial equity for Black students at the School of Education & Information Studies
	Leadership: Tina Christie, Ph.D., Cecilia Rios-Aguilar PhD; Megan Franke, Ph.D.
2019-2022	**Graduate Researcher at UCLA Black Male Institute Lab**
	Project: Gateway to Graduation
	Principal Investigator: Tyrone C. Howard, Ph.D., UCLA
2017-2019	**Graduate Researcher for UCLA Middle School Diversity Project**
	Project: Middle School Diversity Study
	Principal Investigator: Sandra H. Graham, Ph.D., UCLA
2017-2019	**Graduate Researcher for CUESI Lab**
	Project: The Friendship Project
	Principal Investigators: Sandra H. Graham, Ph.D., UCLA, and Rashmita S. Mistry, Ph.D., UCLA
2017-2018	**Graduate Researcher for the UCLA Cognition Lab**
	Project: Incubation & Creativity Study
	Principal Investigator: Gerardo Ramirez, Ph.D., UCLA

PUBLICATIONS

Edwards, E.C. (2021). Centering race to move toward an intersectional ecological framework for defining school safety for Black students. *School Psychology Review,* 0 (0), 1-19.

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Edwards E.C. (April 2021). *From violence to safety: Centering school-based relationships to increase school safety in schools.* [Round Table]. American Educational Research Association, Virtual Conference.

UNIVERSITY TEACHING & MENTORING

2019-2021	**Fieldwork Supervisor & Instructional Coach**
	UCLA Teacher Education Program
2020-2021	**Lecturer for CADV350: Applied Cognitive Development**
	Department of Child & Adolescent Development, CSUN, Northridge, CA
2018-2019	**Teaching Assistant for ED-130: Race, Class, Gender & Inequality in US Schools**
	Department of Education, UCLA, Professor of Record: Tyrone C. Howard

LEADERSHIP INITIATIVES

2021-2022	**Invited Member of Faculty Search Committee**
	UCLA Civil Rights Project/Proyecto de Derechos Civiles
2020-2022	**Founding Organizer for SEIS Black Bruins**
	Black Racial Equity Student Activist Group at UCLA School of ED&IS
2020-2022	**Active Member of Police Free Schools Coalition, Los Angeles**
	Community Based Activist Organization

GENERAL INTRODUCTION

Background

On May 25, 2020, Derek Chauvin—a white Minnesota police-officer—murdered George Floyd, an unarmed Black man. Among a growing crowd of disquieted bystanders and four other officers, Chauvin knelt on Floyd's neck for 8 minutes and 46 seconds until he died. Within 24 hours, video footage of the public killing circulated worldwide and cities across the globe erupted in protest. In the United States, widespread decry of police brutality and the death of George Floyd, Breonna Taylor, and countless other Black people at the hands of law enforcement amplified a call to defund the police. The call quickly extended beyond state and municipal law enforcement to include school police as well.

Efforts to protect Black students elevated the voices of adolescent activists, and Black youth in particular. Black students' voices resonated powerfully, for example, in the Los Angeles Unified School District (LAUSD)—the second largest school district and the largest school police district in the country (Los Angeles School Police Department, 2019). On June 23rd, 2020, hundreds of Black students attended a 13-hour public schoolboard meeting to advocate against school policing. Unexpectedly, school policing was a small portion of what was ultimately a larger discourse on Black youths' feelings of safety in school. Black youths gave personal testimonies about the myriad of ways that they had experienced threats to safety at school via day-to-day encounters with racism (LAUSD Board of Education, 2020). The stories shared by Black students helped elucidate the inadequacy of frameworks of school safety that ignore institutional racism. They also called attention to the possibility that Black students' notions of school safety may differ from those dominant in education discourse and policy, given their experiences with institutional racism.

Kiara Rogers [pseudonym], for example, a student leader at Women's Leadership Academy [pseudonym], detailed her experience being profiled, denied medical attention, and accused of having a drug overdose after losing consciousness at an outdoor school event that she coordinated. "I was so busy that I forgot to drink water…the thought of dehydration was nowhere near in their mind. A nurse should've been brought out to help me and assess the situation… Instead of getting the assistance I needed by a nurse, a school police officer was there when I regained consciousness." Kiara described the incident as a traumatic racial microaggression with lasting impacts on her engagement and sense of safety. "I enjoyed school. I wanted to go to school. And now, I walk in seeing the same police officer that accused me of having a drug overdose…the same officer who monitors me walking home." For Kiara, the mere sight of the school police officer is a trigger that evokes memories of her experience being racially profiled and criminalized at school. Kiara's narrative seemingly highlights a clash between her notions of safety and that of school personnel. While the police officer sought to ensure safety by addressing the potential presence of drugs on campus, Kiara felt that the safe thing to do would have been to ensure her wellbeing beyond any negative assumptions about her as a Black student.

Encounters with school police is just one example of how Black students described experiencing racism and threats to safety at school. Mariah Hasan [pseudonym], a rising freshman at William High School [pseudonym] described feeling uncomfortable at school and having difficulty learning because her school curricula invalidate the existence of Black people. "If we don't see ourselves in the curriculum, then we're not going to want to learn as much…If we only see White history in what we're learning, then it's going to make us feel like our history doesn't matter, and we just want to make it clear that we have to learn about ourselves in school

too because if you don't teach us then who is…It's important for us to feel comfortable in school or else it's going to be harder for us to learn…" Seemingly divergent from a conversation about safety and policing, Mariah's testimony broadens the scope of school safety to include academics as a relevant and impactful dimension of school safety for Black students.

One of the most poignant statements of the day came from Candace Green [pseudonym]. Candace proudly started her testimony with "I am a rising senior at Adams High School [pseudonym], and in spite of LAUSD's failure to support Black students, I am the top student in my class and a community leader…" Candace depicted her school as a disempowering place that deprives Black students of joy, engagement, and personhood. Candance went on to warn schoolboard members that "saying it [Black Lives Matter] is not enough, actions must follow, and change must happen!" She concluded her statements by outlining what meaningful change and safety in school would look like for Black students. "Change is when you begin to listen to Black students. Change is when you begin to listen to Black parents. Change is defunding the Los Angeles School Police Department. Change is when Black students can go to school free of fear—when Black students are not criminalized based on what we choose to wear or the music we listen to. Change is when I can laugh, love, study, and play. Change is when I can breathe." Candace's testimony underscores the fact that Black students inherently experience school differently from other students because of their Blackness. Creating safe schools for Black students requires acknowledgement of race and thoughtful planning to address racism and racial inequity. Together, Kiara, Mariah, and Candace's testimonies highlight a need for a deeper conversation on what it means for Black students to be and feel safe in school.

The Problem

Examining the literature from the mid-1990s to present day reveals gaps in feelings of safety for Black students as compared to their peers (Chandler et al.,1995; Lacoe, 2015; Voight et al, 2015) as well as disparate outcomes for Black students resulting from policies meant to increase safety in schools (Kupchik & Bracy, 2009; Noguera, 1995; Noguera, 2003; Triplett, et al., 2020). Similarly, research has acknowledged that perceptions of interrelated constructs like school climate are significantly impacted by racial and ethnic background (Schneider & Duran, 2010; Thapa, et al., 2013). Even so, research on school climate and safety has largely neglected the ways that categories of race are constructed and given meaning to produce racial differences that reinforce racial hierarchies and systemically disenfranchise Black people (Bonilla-Silva, 2018). As such, researchers have been slow to develop frameworks and measurements of school safety that can capture the racialized experiences of Black students and the evolving contexts that shape those experiences (Astor & Benbenishty, 2019; Byrd, 2017).

For example, results from the 2018-2019 California Healthy Kids Survey of School Climate, Health, and Learning show a pronounced discrepancy between Black youths' reported feelings of school safety and indicators of school safety. Fifty-eight percent of Black ninth graders in LAUSD reported feeling safe at school (See Figure A). However, only 11% of Black students reported fear of being beaten up. Further, compared to White and Latino/a students, Black students experienced the least amount of bullying, and they were just as likely to see weapons at school as White students—the group that felt the safest (California Department of Education, 2019). So, if Black students are not afraid of being physically targeted, they are no more threatened by bullying than other racial-ethnic groups, and they are just as likely to see a

weapon in school as the group that feels the safest, then why don't more Black students feel safe at school?

Figure A.
California Healthy Kids Survey of School Climate, Health, & Learning 2018-2019 Results for LAUSD 9th Grade Students by Race-Ethnicity
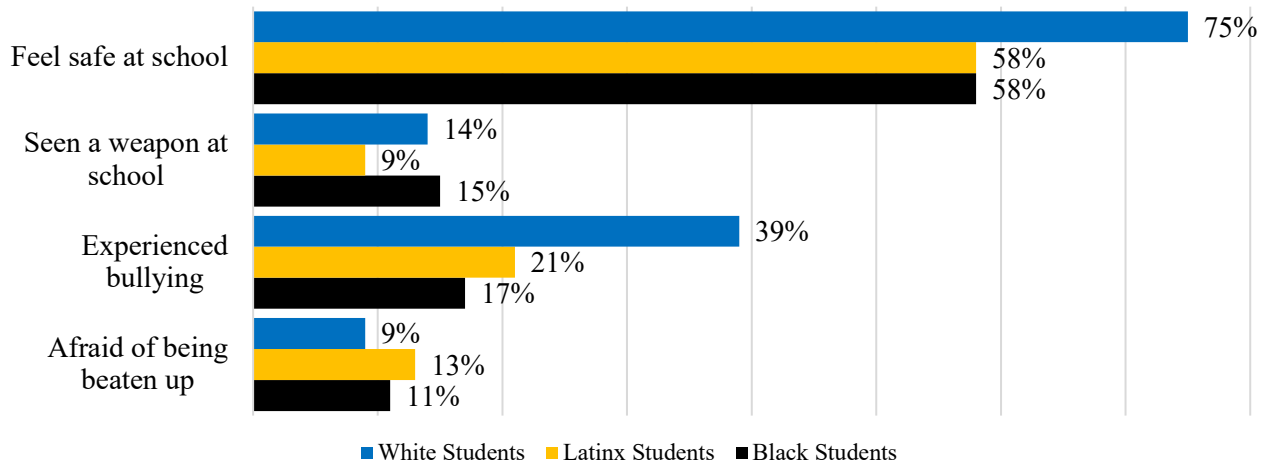
My theory is that institutional racism may be foregrounding disparities in Black students' feelings of safety in school. I use the term institutional racism to refer to subtle attitudes, negative perceptions, deficit thinking, and unquestioned school and classroom level systems, structures, practices, and policies that lead to disparate outcomes for Black students (Carmichael & Hamilton, 1967; Ezikwelu, 2020; Murji, 2007, Watson, 2019a). Studies show that as early as pre-kindergarten, Black children are subject to racial bias and discrimination in schools (Brown et al., 2010; Powell & Coles, 2020). By 7th and 8th grade, experiences of racial discrimination in school predict decreased self-esteem and academic engagement and increased symptoms of depression for Black youth (Wong et al., 2003). Further, by high school, Black students can perceive covert forms of racism and develop mechanisms for coping with its effects on their mental health and academic outcomes (Allen, 2013; Roberts et al., 2008; Tatum, 1997). Thus, the research is clear— the racialized experiences of Black youth at school threatens their

wellness, safety, and outcomes. However, researchers have yet to operationalize the harm inflicted upon Black students via institutional racism in school. Consequently, a lack of knowledge about how Black students define and perceive school safety persists.

Dissertation Overview

This dissertation intervenes upon research and educational practices that subvert or overlook the multifaceted realities of institutional racism in schools and its impact on Black youths' safety. To do so, I examined the following research questions:

1. In California, what are Black high school youths' perceptions of school safety, and do they differ from that of students of other racial-ethnic groups?
   a. To what extent do different student level and school level factors influence the relationship between race-ethnicity and feelings of school safety?
2. Can I empirically validate a new, hypothesized multifactorial measure of Black Student Safety?
   a. Is Black Student Safety related to feelings of school safety?
   b. Is it predictive of important outcomes for Black youth?

To address these questions, I employed a quantitative approach across two cross-sectional studies. Data for the studies come from the 2017-2018 and 2018-2019 high school administration of the California Healthy Kids Survey (CHKS), an anonymous comprehensive survey of school climate and safety, student wellness, and youth resiliency administered in schools. Survey items assessed student agreement with statements like *"I feel safe at school"*, *"I feel close to people at this school,"* and *"I am happy to be at this school"* on a 5-point Likert scale ranging from 1= strongly disagree to 5=strongly agree. Other items assessed frequency of specific occurrences on

a 4-point Likert scale ranging from 1= 0 times to 4= at least 4 times. For example, *"During the past 12 months how many times on school property have you been afraid of being made fun of, insulted, or called names?"* The full dataset for both the 2017-2018 and 2018-2019 administration included over 1.1 million racially and ethnically diverse participants in grades 6 to 13, with a majority coming from grades 5, 7, 9, and 11. Participants came from 2,187 traditional and non-traditional public schools in California. Analytic samples were created from this larger dataset for each individual study. For details on how samples for each study were created, see Appendix A and B.

Study 1 addressed the first research question by examining the relationship between race-ethnicity and feelings of school safety. Study 1 also analyzed the moderating effect of sex, violent victimization, academic motivation, and school connectedness on the association between race-ethnicity and feelings of school safety. The analytic sample for this study included a representative sample of 337,484 racially and ethnically diverse 9th grade students from 851 public high schools in California. Hierarchical linear modeling was used to account for the nested structure of the data (students nested within schools). School safety was measured via the item, *"I feel safe in my school.*"—which assessed participant agreement on a Likert scale from 1=strongly disagree to 5=strongly agree. Further, a race-ethnicity variable with six categories was created using the items *"What is your race?"* and *"Are you Hispanic/Latino?"* The categories in the racial-ethnic variable included Black, White, Latino/a, Asian, Multi-Racial, and Other Race-Ethnicity. Individual level factors like parent level of education, participation in free-reduced price lunch programs, and sex were used as covariates alongside school level factors like school size and school level diversity.

Study 2 focused solely on Black students to address the second research question. The analytic sample included 877 Black 9th grade youth from 65 public high schools across California. Guided by Edwards' (2021) Intersectional Ecological Framework for Defining School Safety for Black Students, this study used confirmatory factor analysis to confirm a higher-order latent variable with four factors, Black Student Safety (BSS). This study then examined the extent to which Black Student Safety could be used to predict feelings of school safety and other important outcomes for Black youth like perceptions of caring relationships at school, academic motivation, and goals and aspirations.

Together, findings from both studies offer significant contributions. First, this dissertation interrupts colorblind discourse of school climate and safety to address institutional racism in schools as a threat to Black youth. As such, findings from this dissertation help inform conceptualizations of school climate and safety moving forward. To my knowledge this is also the first inquiry to apply an institutional racism lens to operationalize school safety for Black youth. Thus, in addition to shaping discourse and frameworks of school safety, this dissertation can inform instrument development and how school climate and safety are measured moving forward. Equally important, findings from this dissertation can inform interventions at the district and school level to promote equity for Black students.

The following section of this dissertation is the literature review. In it I explain the interrelatedness of school climate and school safety and explain how existing frameworks for school climate are colorblind and present challenges to comprehensively defining and conceptualizing safety for Black students. I conclude the literature review with a brief discussion of how colorblind theoretical frameworks get enacted in policies like school policing and instruments like the California Healthy Kids Survey (CHKS). Then, I transition to detailed

descriptions of Study 1 and Study 2 and conclude with a general discussion inclusive of implications and future directions.

LITERATURE REVIEW

A Critical Review of Contemporary School Safety & Climate Research

Examination of school safety necessitates a discussion on school climate, as the two constructs have become inextricably overlapped in the last 10 years (Astor & Benbenishty, 2019; Kutsyuruba, 2015). While research has offered several distinct definitions of school safety and school climate (Astor et al., 2010; Berkowitz et al., 2017; Morrison et al., 1994, Furlong & Morrison, 2000), worldwide intervention and school reform efforts have linked both constructs and "blurred the boundaries" that once separated the different literatures (Astor & Benbenishty, 2019, p. 5). For example, early definitions of school safety focused on reducing crime and acts of physical violence on school grounds (Furlong & Morrison, 2000; Noguera, 1995; The National Institute of Education, 1977). Schools were not conceived as contributors to violence, and thus the role of school leaders was to manage the influence of external sources of violence (e.g., local crime, community violence, weapons; Astor & Benbenishty, 2019; Furlong & Morrison, 2000). Today, perceptions of school safety are more comprehensive and consider social, emotional, and psychological factors associated with feeling safe in school (e.g., belongingness, interpersonal relationships, engagement; Kutsyuruba, 2015; Williams et al., 2018). School leaders are urged to not only react and respond to threats to students' safety, but also actively work to *create* safety via prevention and early intervention (Domitrovich et al., 2017; Espelage et al., 2015; Nickerson, 2019; Williams et al., 2018). As such, today, researchers and educators agree that safety is critical to fostering positive school climate (Kutsyuruba, 2015; Osher et al., 2019).

Correspondingly, a positive school climate is broadly defined as the perceptions, values, and attitudes, as well as the structures and practices that shape the quality of school life and support people in feeling safe (Hoy, 1990; National School Climate Council, 2017; MacNeil et al., 2009). While there is still no unanimous definition for school climate or school safety, there is soft consensus that school climate is a broad, multidimensional construct for which school safety is a critical subdimension (Lewno-Dumdie et al., 2020). So, to understand school safety an analysis of school climate is required.

Examining Safety within Contemporary School Climate Frameworks

The last decade of research has produced seven extensively cited school climate frameworks (Cohen et al., 2009; Department of Education, 2018; Kutsyuruba et al., 2015; National School Climate Council, 2017; Thapa et al., 2013; Wang & Degol, 2016; Zullig et al., 2010). Each framework highlights different dimensions and key elements of school climate. For brevity and scope, this section will focus on the dimension, *safety*. I will first discuss the selection criteria for the aforementioned frameworks. Then, I will explain how each framework positions and defines safety. Last, I highlight the ways that the frameworks fail to account for the experiences of Black students.

The search for school climate frameworks initially started as a search for definitions of school safety and explanations of the relationship between school safety and school climate. As such, I did not have a solidified search criterion, but instead, gradually developed one throughout the research process. Using *Google Scholar*, a widely accessible and public search engine for scholarly literature, I searched the term "school safety." The initial search resulted in a wide range of articles published between 1994 and 2020, many of which (based on their titles and

abstracts) framed safety in the context of physical violence, victimization, and vandalism. In search of more contemporary and comprehensive conceptualizations of school safety, I limited the search to articles published in the last 15 years (between 2005 and 2020), searched the term "school climate," and selected the most relevant and highly cited articles. Cohen et al. (2009) was cited 2,187 times, Thapa et al. (2013) was cited 1,852 times, Wang and Degol (2016) was cited 580 times and Zullig et al. (2010) was cited 468 times. Then, in search of a more recent school climate review, I searched the term "school climate and safety review" and honed the search further to articles published within the last 5 years (2015-2020). Kutsyuruba et al. (2015) was listed as the top article in the search with 137 citations. Finally, the decision to include the frameworks offered by National School Climate Council (2017) and the Safe and Supportive Schools Grants of the Department of Education (2018) was based on the fact that they were referenced across several texts in the school climate and school safety literature (e.g., Astor & Benbenishty, 2019; Kutsyuruba et al., 2015; Thapa et al., 2013; Olsen et al., 2017). Equally important, they offered models that have been used to inform district and school-level interventions across the country. Together the seven frameworks offer well-known, research-based conceptualizations of school climate that inform research and practice.

Table 1 shows the seven frameworks that I reviewed. Of the seven frameworks examined, six list *safety* as a primary dimension of school climate. Of the six, five highlight distinctions between physical safety and social-emotional safety. Across those five frameworks, physical safety refers to factors like crisis management, protection from violence, physical harm, and victimization, as well as disciplinary policies and substance abuse (Cohen et al., 2009, DOE, 2018; NSCC, 2017; Thapa et al., 2013; & Wang & Degol, 2016). Overall, the five frameworks suggest that ensuring physical safety requires consistent enforcement of rules and disciplinary

polices as well as security measures for reducing violence and maintaining order. Wang and Degol (2016), for example, highlight security guards, metal detectors, and active classroom management as effective strategies for eliminating violence in schools. Thapa et al. (2013) emphasizes the impact of school rules and norms on mitigating student victimization and increasing feelings of school safety.

Social-emotional safety, on the other hand, refers to school wide practices for conflict resolution, attitudes and responses to peer aggression and bullying, and availability of caring and supportive adults. NSCC (2017), for example, highlights the importance of protecting students from teasing and exclusion. Wang and Degol (2016) agrees and adds that availability of counseling services is also critical to ensuring social-emotional safety in schools. Further, Cohen et al. (2009) asserts that social-emotional safety requires tolerance and respect of human differences (e.g., race, gender, sexual orientation). By drawing such distinctions between physical and social-emotional safety, the five aforementioned frameworks underscore the fact that promoting school safety is about more than just preventing violence and crime (Skiba et al., 2004; Williams et al., 2018). School safety is about fostering positive conditions for learning, engagement, and healthy development (Osher et al., 2019).

Unlike the five previously mentioned frameworks, Zullig et al. (2010) does not disaggregate safety into a physical and social-emotional category. Instead, safety is just one aspect of a larger dimension entitled *order, safety, and discipline* (p.141). In this dimension, safety refers to compliance with school rules and consistent school-wide disciplinary policies. In this framework, safety also requires mitigating the presence of gang activity on school grounds. Zullig et al. (2010), thus, seemingly defines safety in accordance with how other frameworks define physical safety.

Kutsyuruba et al. (2015), also differs from the aforementioned frameworks because it does not list safety as a dimension of school climate at all. Kutsyuruba et al. (2015) posits that given subjective perceptions of school climate, frameworks should be broadened to just three dimensions—*physical*, *social*, and *academic*. Thus, Kutsyuruba et al. (2015) lists safety as one of several key elements under the dimension, *physical* (p. 109). Like Zullig et al. (2010), Kutsyuruba et al. (2015) associates safety with order and discipline. Other key elements of the *physical* dimension include the condition and aesthetic of school facilities, school size, availability of resources, and student to teacher ratio. Further, while not explicitly listed under any dimensions, in the manuscript, Kutsyuruba et al. (2015) highlights the importance of school wide responses to bullying and violence and consideration of vulnerable subgroup populations like "racialized students," "exceptional learners," and "sexuality and gender-identity based groups" (p.115).

In summary, of the seven frameworks analyzed in this review, five position safety as a standalone dimension of school climate. Conversely, one framework posits that, together, order, safety, and discipline construct one dimension of school climate. The last framework refers to safety as a key element of a broader *physical* dimension of school climate. Despite discrepancies in definitions and dimensionality, Cohen et al. (2009), DOE (2018), Kutsyuruba et al. (2015), NSCC (2017), Thapa et al. (2013), Wang and Degol (2016), and Zullig et al. (2010) all acknowledge that safety is a critical factor of school climate. Further, each framework has contributed significantly to our understanding and assessment of healthy school environments (Lewno-Dumdie et al., 2020). By positioning school climate as an overarching, multidimensional construct, they have helped unpack and sophisticate our understanding of school safety. Notwithstanding the contributions of the above frameworks, it is critical to acknowledge their

limitations and where they fail to adequately represent and make space for the experiences of Black youth.

The Problem with Singling Out Safety

Cohen et al. (2009), DOE (2018), Kutsyuruba et al. (2015), NSCC (2017), Thapa et al. (2013), Wang and Degol (2016), and Zullig et al. (2010) and are all multidimensional frameworks. While it is beyond the scope of this dissertation to detail every dimension in each framework, some of the dimensions they include are *teaching and learning*, *relationships*, and *institutional environment*. In each framework, safety is either isolated as its own dimension of school climate or listed as a key element of another dimension. In other words, none of the frameworks list safety across multiple dimensions of school climate and so safety is only mentioned once in each framework. Isolating safety in this way presents a problem when attempting to assess the safety of Black students because it conceals the threats to safety that they experience across different dimensions of school. For example, Wang and Degol (2016) identifies *safety*, *community, academic*, and *institutional environment* as separate dimensions of school climate. By isolating *safety* into a single dimension separate from *community*, *academic*, and *institutional environment*, Wang and Degol (2016) posits two assumptions. The first assumption is that the safety of students is not and/or cannot be threatened by factors related to *community*, *academic*, and *institutional environment*. The second assumption is that if indeed the safety of a student is threatened by factors associated with those dimensions, the threat is not comparable to that posed by factors in the *safety* dimension (i.e., discipline and order, physical safety, etc.). Similarly, in singling out safety, the other frameworks make the same assumptions.

Such assumptions, however, are inconsistent with a long history of research on the

myriad of ways that Black students are harmed by institutional racism in school. Deficit notions

about Black students, denigrating curriculum and pedagogy, discriminatory policies and

practices, and racist social and linguistic norms are just a few aspects of school climate that

regularly threaten Black students' safety (Baker-Bell, 2013; Dumas; 2014; Ford; 2014; Johnson

et al. 2019; Kohli & Solórzano, 2012; Sondel et al., 2019; Watson, 2019b). Thus, by not

explicitly embedding safety within other dimensions of school climate, the frameworks do not

and cannot account for the insidious and multifaceted ways that institutional racism regularly

threatens the safety and outcomes of Black students in school. Inattention to the presence and

impact of institutional racism is further evidenced by the fact that six of the seven frameworks do

not mention race or racism in any of their dimensions at all. As such, Cohen et al. (2009), DOE

(2018), Kutsyuruba et al. (2015), NSCC (2017), Thapa et al. (2013), Wang and Degol (2016),

and Zullig et al. (2010) are colorblind frameworks incapable of comprehensively defining and

assessing school safety for Black students.

Exposing Colorblindness in School Climate Frameworks and Definitions of Safety

In addition to overlooking the impact of racism on Black students' safety, to varying

degrees, Cohen et al. (2009), DOE (2018), Kutsyuruba et al. (2015), NSCC (2017), Thapa et al.

(2013), Wang and Degol (2016), and Zillig et al. (2010) also minimize and evade racism. For

example, across all the frameworks, different terminology is used to identify human connection

as a critical dimension of school climate (i.e., engagement, community, social, social

relationships, relationships, and interpersonal relationships). Of the seven frameworks, five list

respect for diversity as a key element of human connection (see Table 2). According to Cohen et

al. (2009), DOE (2018), NSCC (2017), and Wang and Degol (2016), *respect for diversity* means promoting positive-interpersonal relationships across lines of difference. The frameworks suggest that fairness comes from equal treatment, and they emphasize the importance of awareness and tolerance of differences in schools. Zullig et. (2010) does not explicitly name *respect for diversity,* but similarly highlights the importance of such interpersonal relationships.

While framed as a concept for promoting equity, in each framework, *respect for diversity* is divorced from institutional analyses and concrete discourse of racism in schools. Thus, while seemingly beneficial to promoting safety and positive climate, "respect for diversity" is an underdeveloped notion that does not actually promote paradigm shifts for creating safe and equitable schools for Black students. As such, the frameworks engage in what Kohli et al. (2017) refers to as *evaded racism*—"a superficial approach to reform that centers Whiteness rather than improve the educational opportunities for students of Color" (p.186). By emphasizing "respect for diversity," "equitable and fair treatment" and "interpersonal relationships," Cohen et al. (2009), DOE (2018), NSCC (2017), Wang and Degol (2016), and Zillig et al. (2010) allude to racism without discussing it. Further, they connote that racism exists as an interpersonal phenomenon versus an institutional problem in schools.

Thapa et al. (2013) and Kutsyuruba et al. (2015), also mention *respect for diversity*. However, they present more nuance in their conceptualization by acknowledging that race, ethnicity, and other social identities impact how certain groups of students experience school and perceive school climate. Despite such acknowledgement, the only time that they connect racialized students' experiences to safety is in discourse about interpersonal interactions (i.e., bullying, victimization, violence). As such, they limit the scope and impact of racism to individual acts of discrimination. Such narrow notions of racism render invisible the many ways

that subtle attitudes, deficit notions, structural organization, and school wide policies and practices (institutional racism) create and maintain unsafe school environments for Black youth.

In all, colorblind frameworks are ill-equipped to comprehensively define and structure discourse of school safety for Black youth. Further, when colorblind frameworks inform discourse of school safety and school safety interventions, they can work to exacerbate threats to Back youths' safety. One such example, is school policing.

School Policing: Colorblind Frameworks Enacted in Policy

Across time, efforts to reduce crime and violent injury have institutionally compromised the safety of Black students (Morris, 2016; Noguera, 1995; Skiba et al., 2014). Under the guise of "making schools safe," punitive and exclusionary discipline policies have enacted a culture of fear that continues to disproportionately surveil and criminalize Black youth (McKinney de Royston et al., 2020; Noguera, 2003). For example, since the 1999 Department of Justice COPS in Schools program, schools across the U.S. have experienced a significant increase in police presence via school resource officers (SROs; Girouard, 2001). Research shows that the constant link between school and law enforcement has increased the likelihood of Black students getting arrested and entering the justice system (Morris, 2016; Skiba et al., 2014). Studies have similarly exposed racial bias in school policing. For example, Fisher et al. (2020) examined SROs' perceptions of threats to school safety. Findings showed that SROs' perceptions of threatening behavior as well as punitive responses were often shaped by students' races. In suburban, White schools, SROs cited external factors like intruders and busy roads as the biggest threat to school safety. Conversely, in racially diverse, urban schools, SROs cited students—particularly Black students—as the biggest threat to school safety. SROs endorsed racial stereotypes about Black

dangerousness and expressed deficit notions of Black students to justify their punishment. Given racial disparities in disciplinary outcomes, evidence of racial bias in school policing, and the pervasiveness of police brutality against Black people, it is no wonder why Black students report low feelings of safety in schools that employ SROs and other high security measures (Lacoe, 2015; Theriot & Orme, 2016).

In the same way that colorblind frameworks inform policies and school-based interventions like school policing, frameworks also inform instruments. When colorblind frameworks are used to inform instruments for assessing school safety, the experiences of Black students can become obscured in ways that leave gaps in our understanding of Black students' outcomes and needs—such as the case with the California Healthy Kids Survey.

The California Healthy Kids Survey: Colorblind Frameworks Enacted in Instruments

CHKS is the largest state-wide student survey of resiliency, protective factors, risk behaviors, and school climate in the nation (CalSCHLS, n.d.). Developed alongside the California Department of Education, most school districts in the state use CHKS as a comprehensive assessment of school climate and engagement to guide the Local Control and Accountability Plan (LCAP). The California Healthy Kids Survey is a robust survey with measures that capture several aspects of school life. However, because CHKS is informed by a colorblind framework, the measures are not structured to comprehensively perceive threats to Black students' safety, despite perhaps having items capable of doing so.

The guiding theoretical framework of the CHKS prioritizes caring relationships, high expectations, and opportunities for participation and contribution as developmental supports that protect against the adverse effects of stress, trauma, and other risk factors (see Figure B).

Figure B.

Guiding Theoretical Framework of CHKS
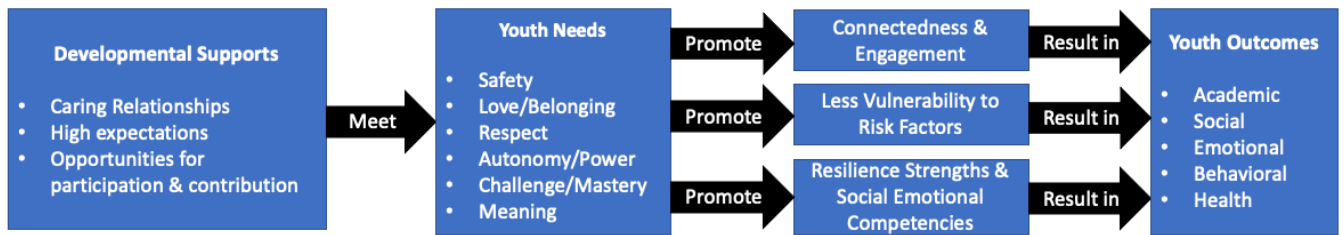
The framework posits that protective factors are essential to meeting students' basic needs (i.e., safety, love/belonging, respect, autonomy/power, challenge/mastery, meaning; Maslow, 1943; CalSCHLS, n.d.). Further, the framework proposes that having basic needs met allows students to feel more connected and engaged in school meanwhile reducing their vulnerability to risk factors and helping them to develop their social-emotional competence. The presumed result is better academic, social, emotional, behavioral, and health outcomes. Like other contemporary frameworks of school climate, the guiding theoretical framework for CHKS is also colorblind. The framework does not explicitly address race nor acknowledge the impact of racism in school. For example, it does not address the ways racism may affect Black youths' access to developmental supports in schools. Given the limitations of the guiding framework, the instrument is equally limited in its conceptualization of safety and climate.

The California Healthy Kids Survey assesses school climate via six dimensions social-emotional; academic; interpersonal relationships; order and discipline; violence, victimization, substance abuse; and safety. CHKS singles out safety as its own dimension of school climate and assesses it via one item, "*I feel safe in my school*." Further, while the survey is robust and includes items that may be able to speak to Black youths' racialized experiences in school, the colorblind framework upon which it is built and utilized makes it so that researchers don't look

at those items and think to associate them with institutional racism. So, an item like "*parents feel welcomed to participate at this school*" is seen solely as an indicator of school engagement, when it could also be an indicator of subtle, biased attitudes and practices that lead to disparate outcomes for Black youth and threaten their safety.

It is important to note that the California Healthy Kids Survey does not explicitly prompt respondents to consider their race across items. Similarly, items do not prompt respondents to address issues related to the structural organization of schools nor school policies and practices. As such, the CHKS is not ideal for assessing students' experiences with institutional racism in school. However, given the robustness of CHKS, I hypothesized that reconfiguring some of the items of the survey to intentionally try and capture the racialized experiences of Black youth in school would allow for a more comprehensive understanding of how they experience safety and threats to safety via their day-to-day interpersonal interactions and overall perceptions of school. Further, that their experiences and perceptions could serve as indicators of the effects of institutional racism and provide useful insight on Black youths' feelings of school safety. I reasoned that using a racial lens to reconfigure items might be able to speak to the types of threats that students like Kiara, Mariah, and Candace experience—threats posed by ahistorical curriculum, implicit bias, deficit notions of Black students, and encounters with school police. I tested this hypothesis is Study 2. For Study 1, I took an exploratory approach to learning about the Black students in California and examining their feelings of school safety using the standard single-item measure of safety in the California Healthy Kids Survey. More specifically, I was interested in examining disparities in feelings of safety by race-ethnicity and factors that contributed to Black students feeling safe and unsafe in school. The following chapters of this dissertation provide thorough descriptions of Study 1 and Study 2.

Table 1. *Conceptualization of Safety Across 7 Frameworks of School Climate*

Source	Dimension	Key Elements
Department of Education Safe and Supportive Schools Model (2018)	**Safety**	*Emotional Safety, Physical Safety, Substance Abuse:* Schools and school-related activities where students are safe from violence, bullying, harassment, and controlled-substance use.
Wang & Degol (2016)	**Safety**	*Social/Emotion:* Lack of bullying, availability of counseling. *Discipline & Order:* Conflict resolution, clarity, fairness and consistency of rules, beliefs in school rules. Physical: Reduced violence and aggression; students and staff feel safe; security measures; metal detectors, guards.
Kutsyuruba et al. (2015)	**Physical**	Appearance of the school building and its classrooms. School size and ratio of students to teachers in classrooms. Order and organization of classrooms in the school. Availability of resources. Safety and comfort.
Thapa et al. (2013)	**Safety**	*Rules and norms:* School rules and perceived fairness in regard to dealing with students' behavior. Consistent enforcement of school rules, structure and support. *Physical safety:* Mitigating exposure to physical violence and peer victimization. Physical layout and surroundings of the school as well as resources and supplied *Social-emotional safety:* Bullying, social violence, peer aggression prevention. Promotion of student psychological well-being.
Zullig et al. (2010)	**Order, Safety, & Discipline**	*Perceived safety, respect for peers and authority, knowledge and fairness of disciplinary policies, presence of gangs*: The extent to which problems in school are solved by students and staff, and school rules are communicated clearly and enforced consistently.
Cohen et al. (2009)	**Safety**	*Physical:* Crisis plan; clearly communicated rules; clear and consistent violation response; people in the school feel physically safe; attitudes about violence) *Social-emotional:* Attitudes about individual differences; students' and adults' attitudes about and responses to bullying; conflict resolution taught in school; belief in school rules)

National School Climate Council (2017)	**Safety**	*Rules and norms:* Clearly communicated rules about physical violence; clearly communicated rules about verbal abuse, harassment, and teasing; clear and consistent enforcement and norms for adult intervention. *Sense of physical security:* Sense that students and adults feel safe from physical harm in the school. *Sense of social-emotional security:* Sense that students feel safe from verbal abuse, teasing, and exclusion.

Table 2. *Reference to Respect for Diversity & Relationships Across 7 Frameworks of School Climate*

Source	Dimension	Key Elements
Department of Education Safe and Supportive Schools Model (2018)	**Engagement**	*Relationships, **respect for diversity,** and school participation:* Strong relationships between students, teachers, families, and schools and strong connections between schools and the broader community.
Wang & Degol (2016)	**Community**	*Partnerships:* The role that community members and parents play; parent involvement. *Quality of relationships:* Trust, interpersonal relations between staff and students, affiliation. *Connectedness:* Cohesion, sense of belonging, student activities. ***Respect for diversity:*** Fairness; autonomy, opportunities for decision making, cultural awareness.
Kutsyuruba et al. (2015)	**Social**	**Quality of interpersonal relationships** between and among students, teachers, and staff; **equitable and fair treatment** of students by teachers and staff; degree of competition and social comparison between students; degree to which students, teachers, and staff contribute to decision-making at the school
Thapa et al. (2013)	**Relationships**	**Respect for diversity**; school connectedness/engagement; social support, leadership, and students' race/ethnicity and their perceptions of school climate
Zullig et al. (2010)	**Social Relationships**	*Positive teacher-student relationships*: How well students and teachers get along, and how available and dependable students perceive teachers to be. *School social environment:* Quality of **student-peer relationships**, and how happy students feel about peers at school *Perceived exclusion/privilege:* The extent to which students feel that that they are **treated fairly and provided equal opportunity** to participate in activities at school.
Cohen et al. (2009)	**Relationships**	***Respect for diversity:*** Positive adult-adult relationships between/among teachers, administrators, and staff; positive adult-student relationships; positive student-student relationships; shared decision-making; common academic planning opportunities; diversity valued; student participation in learning and discipline; peer norms linked to learning, cooperative learning, conflict-violence prevention; being able to say "no"

		School community & collaboration: Mutual support and ongoing communication; school-community involvement; parent participation in school decision-making; shared parent-teacher norms vis-à-vis learning and behavior; student family assistance programs
		Morale & connectedness: Students are engaged learners; staff are enthusiastic about their work; students connected to one or more adults; students/staff feel good about school and school community)
National School Climate Council (2017)	**Interpersonal Relationships**	*Social and civic learning:* Support for the development of social and civic knowledge, skills, and dispositions including effective listening, conflict resolution, self-reflection and emotional regulation, empathy, personal responsibility, and ethical decision making.
		Respect for diversity*:* Mutual respect for individual differences (e.g., gender, race, culture, etc.) at all levels of the school—student-student; adult-student; adult-adult and overall norms for tolerance.
		Social-support—adults: Pattern of supportive and caring adult relationships for students, including high expectations for students' success, willingness to listen to students and to get to know them as individuals, and personal concern for students' problems
		Social-support—students: Pattern of supportive peer relationships for students, including friendships for socializing, for problems, for academic help, and for new students

STUDY 1

Feelings of School Safety Among Black Youth and Their Peers in California High Schools

Feelings of School Safety Among Black Youth and Their Peers in California High Schools.

Today some of the most extensively cited frameworks shaping the discourse of school safety presume school to be a "racially neutral" place where all students are treated fairly and unequivocally granted the same access and opportunity. However, racism continues to be a pervasive barrier to equitable schooling for Black students (Bonilla-Silva, 2018; Blaisdell, 2015; Chapman, 2013; Doucet & Adair, 2013; Ford, 2014; Kohli et al., 2017). Ignoring the omnipresence of racism in contemporary schooling and its deleterious effect on Black students' safety inherently normalizes and maintains racism and the dehumanization of Black youth in schools (Kohli et al., 2017). Further, it allows for systemic mechanisms of racism (e.g., curriculum, student surveillance, etc.) to be ignored as explanations for racial disparities and replaced by individual-based rationales that perpetuate deficit notions of Black students (i.e., Black students are aggressive, behaviorally challenged, intellectually deficient; Kohli, et al., 2017; Ford, 2014; Morris, 2016). As such, it is imperative that scholars address the critical role of race and racism in their efforts to assess and promote school safety.

Ensuring that school safety frameworks and instruments address the experiences of Black students, requires deeper understanding of racial-ethnic disparities in feelings of school safety. More specifically, as scholars, we must go beyond simply identifying disparities, and instead examine racial-ethnic differences between factors known to empower and threaten safety for youth. Such analysis can help shed light on *why* disparities in feelings of school safety may exist between different racial-ethnic groups and highlight important needs for specific groups.

Using a large, representative sample of 9th grade youth from public high schools across California, the current study aimed to fill the gap in the literature by: 1) describing Black high school youths' perceptions of school safety, 2) identifying potential differences in feelings of

school safety between Black youth and their peers of different racial-ethnic groups, and 3) assessing the extent to which different student-level and school-level factors influence the relationship between race-ethnicity and feelings of school safety.

Of particular interest in this study were student-level factors associated with social-emotional and physical experiences at school, as they are the most cited dimensions of school safety (Edwards, 2021; Thapa et al., 2013). Social-emotional factors included school connectedness, academic motivation, and academic achievement. School connectedness refers to the extent to which "students feel personally accepted, respected, included, and supported by others" at school (Goodenow, 1993, p. 80). A pivotal factor in improving the mental and physical health of youth from marginalized groups, school connectedness is particularly relevant to assessing feelings of safety for Black youth (Coulter et al., 2021). Also, research shows a positive association between academic success and perceptions of the school environment (Gietz & McIntosh, 2014). Given inequitable access to academic attainment and educational opportunities for Black youth (Ford, 2014; Mary et. al., 2014), achievement and motivation were also relevant factors to explore.

The physical factors explored in this study included verbal harassment, racial harassment, and violent victimization, as they are relevant indicators of aggression and violence in schools (Valois et al., 2002). Because the transition to high school is marked by a change in sociocultural context during a critical developmental period where youth are vulnerable to such social stressors (Benner, 2009), focusing on 9th grade students was an important consideration of this study. Participation in free and reduced-price lunch programs, parent level of education, and sex were explored as critical sociodemographic variables. Further, school racial-ethnic diversity and

school size were explored as contextual factors for their powerful influence on adolescents' perceptions of the school environment and safety (Graham, 2018).

Methods

Data for this study came from two sources—the California Healthy Kids Survey (CHKS), conducted by WestEd for the California Department of Education (Austin et al., 2020), and publicly available school-level data from the California Department of Education's web-based data reporting system, DataQuest (available at: https://dq.cde.ca.gov/dataquest/).

The CHKS is the largest statewide survey of school-aged children's perceptions of school climate and safety. The survey is administered biannually by WestEd to 5th, 7th, 9th, and 11th grade students. School staff administer the survey following detailed instructions provided by WestEd to ensure uniform data collection procedures and protection of all student and parental rights to privacy and confidentiality (refer to: https://calschls.org/survey-administration/). Student participation is voluntary, anonymous, and requires active parental consent, and school districts have the choice of online or paper administration.

A 2-year wave provides a representative sample of the state of California. Analyses for this study were conducted using the 2017-2018 and 2018-2019 administration of the CHKS Core Module. The Core Module is adjusted across elementary (grades 3-5) and secondary grades (grades 6 and up) for developmental appropriateness and administered to every entity that participates in the CHKS. Aligned with the Local Control and Accountability Plan (https://www.cde.ca.gov/re/lc/), it assesses school climate and safety, pupil engagement, student supports, bullying, and substance abuse. The Core Module also includes demographic questions to help identify the needs of key subgroups including, racial-ethnic groups, foster youth,

economically disadvantaged youth, and English Language Learners. The present analysis focused on 9th grade respondents of the Core Module. Participants were 337,484 students (50.3% Male and 49.3% Female) across 851 public high schools.

Dependent Variable: Feelings of School Safety

Like other studies (e.g., The National Longitudinal Study of Adolescent Health) students were prompted to report feelings of school safety via their level of agreement with the statement, *"I feel safe in my school."* Reponses were assessed on a Likert Scale ranging from 1=strongly disagree to 5= strongly agree.

Student-Level Independent Variables: Demographics & Social-Emotional and Physical Experiences

Demographics. A race-ethnicity variable was constructed using 2 items from CHKS, *"what is your race?"* and *"are you Hispanic/Latino?"* The racial categories provided by CHKS included, American Indian/Alaska Native, Asian, Black/African American, Pacific Islander, White, and Mixed (two or more) Race. For this study, racial categories were collapsed to focus on groups with the highest representation in California public schools. Further, across all racial groups, participants who identified as Hispanic/Latino were solely categorized as such. The resulting race-ethnicity variable used in this study included the categories: Black/African American (4.1%), White (21.3%), Latino (47.2%), Asian (18.8%), Multi-Racial (6.0%), and Other Race-Ethnicity (2.5%). The "other race-ethnicity" category represented numerical minorities in the sample (i.e., American Indian/Alaska Native and Pacific Islander).

Sex was a dichotomous variable assessed with the item, *"What is your sex?"* (Male=50.3%, Female= 49.7%). Further, in line with best practices for conceptualizing and

measuring social class in psychological research, participation in free or reduced-price lunch programs and parent level of education were used as indicators of socioeconomic status (Diemer, Mistry, Wadsworth et al., 2013). The free-reduced lunch variable (FRL) was created from the item, "*Do you receive free or reduced-price lunches at school?*" Participant responses included: 1) yes 2) no and 3) I don't know. Fifteen percent of survey participants responded, *"I don't know."* Given an inability to interpret the response, it was recoded as missing data. The final FRL variable was dichotomous (Yes = 47.8%, No = 52.2%). Parent-level of education was assessed with the item, *"what is the highest level of education your parents or guardians completed?"* and responses included: 1) did not finish high school (N = 45,071; 16.2%), 2) graduated from high school (N = 54,389; 19.5%), 3) attended college but did not complete four-year degree (N = 42,040; 15.1%) , 4) graduated college (N = 136,827; 40.5%), and 5) I don't know (N = 59,157; recoded as missing). Participation in free-reduced priced lunch programs and low parental educational attainment were indicative of low socioeconomic status.

Social-Emotional and Physical Experiences. Verbal harassment was assessed as the mean of 4 items such as "*In the past 12 months, how many times have you had mean rumors or lies spread about you?*" and "*In the past 12 months, how many times have you been made fun of, insulted, or called names*" (alpha = 0.83). Racial harassment was assessed via the item, "*In the past 12 months, how many times on school property, were you harassed or bullied for your race, ethnicity, or national origin?*" Violent victimization was assessed as the mean of 6 items including, "*In the past 12 months, how many times have you been pushed, shoved, slapped, hit, or kicked*" and "*In the past 12 months, how many times have you been threatened with harm or injury?*" (alpha = 0.73). All items used a 4-point response scale from 1= zero times to 4= four or

more times. Items were reverse coded to ensure consistency with other constructs so that higher ratings equated to more positive experiences at school.

School connectedness was assessed as the mean of 4 items such as "*I feel like I am a part of this school*" and "*The teachers at this school treat students fairly*" (alpha = 0.80). Academic motivation was assessed as the mean of 4 items like, "*I am always trying to do better in my schoolwork*" and "*I work hard to understand new things at school*" (alpha = 0.89). Items for both variables used a 5-point scale from 1=strongly disagree to 5=strongly agree. Academic achievement was assessed using participants' self-reported grades based on their responses to the item: "*In the past 12 months, how would you describe the grades you mostly received in school?*" For consistency with the traditional grade point average scale, responses were collapsed into the following 4 categories: 1) Lower than Cs (N = 40,149; 12%), 2) Bs & Cs (N = 82,060; 24.8%), 3) As & Bs (N = 133,776; 40.4%), and 4) As (N = 75,008; 22.7%).

School-Level Independent Variables: School Diversity & School Size

Data from the California Department of Education were used to compute Simpson's Index (1949)—a diversity index for each high school in the study. The diversity index represents the probability that any two students chosen at random in a particular school will be from different racial-ethnic groups. Values for Simpson's Index range from 0 to 1 with higher values representing more school diversity. Simpson's index was created using the following formula:

$$D_c = 1 - \sum_{i=1}^{g} p_i^2$$

Diversity (Dc) was calculated by summing the squared proportion of students at the same school who belong to a given ethnic group (p) and then subtracting this squared proportion from one. In

this study, Simpson's Index of Diversity was calculated for all high schools in the sample and

was used as a contextual indicator (M=.51, SD=.20). For each high school in the study, school

size was extracted from the CDE's DataQuest (M=1,994, SD= 776.04)

Table 1.1. *Descriptive Statistics for Study Variables*

Variable	Representation	Coding	Statistics
Student-Level Variables			
RaceEth	Racial-Ethnic Identity	1= Black/African American	4.1%
		2= White	21.3%
		3=Hispanic/Latino	47.2%
		4=Asian	18.8%
		5=Multi-Racial	6.0%
		6=Other Race-Ethnicity	2.5%
Sex	Sex	0=Male	50.3%
		1=Female	49.7%
FRL	Free-Reduced Price Lunch	0=Yes	47.8%
		1= No	52.2%
ParentEd	Parent Level of Education	1= Did not finish high school	16.2%
		2= graduated from high school	19.5%
		3=attended college but did not complete a 4-year degree	15.1%
		4= graduated from college	40.5%
School Level Variables for Control Purpose			
Diversity	Simpson's Index of Diversity	Continuous variable	M=0.51, SD=0.20
School Size	Total Enrollment (by CDE)	Continuous variable	M=1,994, SD=776.04
Experiences & Perceptions of School (as student-level variables)			
*Verbal Harassment	Frequency of personal experiences of verbal harassment at school	*In the past 12 months, how many times have you been…* 1= 4 or more times 2= 2 or 3 times 3= 1 times 4= 0 times	M=1.59, SD=0.83

Table 1.1. *Selected Variables and Measures and Their Descriptive Statistics (continued)*

Variable	Representation	Coding	Statistics
Experiences & Perceptions of School (as student-level variables)			
*Racial Harassment	Frequency of personal experiences of racial harassment at school	*In the past 12 months, how many times have you been…*	M=1.38, SD=0.75
*Violent Victimization	Frequency of personal experiences of violent victimization at school	1= 4 or more times 2= 2 or 3 times 3= 1 times 4= 0 times	M=1.22, SD= 0.88
School Connectedness	Perceptions of personal level of school connectedness	1= strongly disagree 2= disagree 3= neither disagree nor agree	M=3.53, SD=0.856
Academic Motivation	Perceptions of personal level of academic motivation	4= agree 5= strongly agree	M=3.91, SD= 0.88
Academic Achievement	Self-reported measure of achievement (grades)	1=Lower than Cs 2=Bs & Cs 3=As & Bs 4= As	M=2.74, SD=0.94

Note. * Represents variables that have been reverse coded so that higher codes equate to more positive perceptions

Analytic Plan

When students are nested within schools, responses within a school become correlated because they share commonalities characterized by the same context (Raudenbush & Bryk, 2002; Snijders & Bosker, 2012). The data hierarchy of students nested within schools makes a two-level hierarchical linear model (HLM) the appropriate analytical technique. In the model, Level 1 represents students and Level 2 represents schools. I developed five HLM models to explore my research questions. **Model 1** was the baseline or unconditional model:

$$Safety_{ij} = \beta_{0j} + r_{ij}$$
$$\text{with } r_{ij} \sim N(0, \sigma_e^2)$$

with $Safety_{ij}$ indicating the safety score for individual i in school j. B_{0j} is the average safety score for school j, and r_{ij} is the error term representing a unique deviation associated with individual i in school j. r_{ij} measures student-level random effect, and σ_e^2 is the variability within schools. The corresponding school-level model capturing between-school variability in safety is:

$$\beta_{0j} = \gamma_{00} + u_{0j}$$
$$\text{with } u_{0j} \sim N(0, \tau_{00})$$

with γ_{00} representing the grand mean, or overall average safety, and u_{0j} measuring the school level random effect. τ_{00} represents the variability across schools. Combining the Level 2 and Level 1 equations, the full HLM is obtained:

$$Safety_{ij} = \gamma_{00} + u_{0j} + r_{ij}$$

This model served two purposes: 1) to estimate the grand mean of safety with adjustment for clustering of students within schools and for different sample sizes across schools, and 2) to estimate variance components at the student and school levels.

Model 2 was the individual-level model which controls for characteristics of students attending each school. This model contained only level-1 covariates, specifically, participation in

free-reduced lunch program (FRL), parent level of education (ParentEd), and sex. The premise of

including individual-level variables in this model was to adequately control for

sociodemographic characteristics of the participants. The individual-level model expanded upon

the null model, with the goal of capturing individual differences that may be confounded with the

main variable of interest, race-ethnicity. The model can be expressed as:

$$\underline{\text{Level 1:}}\ Safety_{ij} = \beta_{0j} + \beta_{1j}FRL + \beta_{2j}ParentEd + \beta_{3j}Sex + r_{ij}$$
$$r_{ij} \sim N(0, \sigma^2)$$

$$\underline{\text{Level 2:}}\ \beta_{0j} = \gamma_{00} + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\beta_{2j} = \gamma_{20}$$
$$\beta_{3j} = \gamma_{30}$$
$$u_{0j} \sim N(0, \tau_{00})$$

$\beta_{1j} - \beta_{3j}$ are the coefficients (effects) of the covariates on $Safety_{ij}$ with other parameters

remaining the same as the baseline model. The student variable has a fixed slope or fixed effect

across schools. Thus, individual differences associated with each student-level variable are

assumed to have the same influence across schools. $\gamma_{01} - \gamma_{30}$ are the coefficients of the

covariates with other parameters remaining the same as in the baseline model.

Model 3 was the contextual model. It expanded upon the individual-level model to

include school-level variables, specifically, school diversity and school size. This model aimed

to examine school contextual effects. As such, school contextual variables were used to explain

the variation in school mean safety adjusting for individual level covariates. $\gamma_{01} - \gamma_{02}$ are the

effects of the covariates on the intercept with other parameters remining the same as in the

baseline model.

$$\underline{\text{Level 1:}}\ Safety_{ij} = \beta_{0j} + \beta_{1j}FRL + \beta_{2j}ParentEd + \beta_{3j}Sex + r_{ij}$$
$$r_{ij} \sim N(0, \sigma^2)$$

$$\text{Level 2 model: } \beta_{0j} = \gamma_{00} + \gamma_{01}Diversity + \gamma_{02}SchoolSize + u_{0j}$$
$$\beta_{1j} = \gamma_{00} + \gamma_{11}Diversity + u_{1j}$$
$$\beta_{2j} = \gamma_{00} + \gamma_{22}SchoolSize + u_{2j}$$
$$u_{0j} \sim N(0, \tau_{00})$$
$$u_{1j} \sim N(0, \tau_{10})$$
$$u_{2j} \sim N(0, \tau_{20})$$

Model 4 was the conditional model; it built upon the contextual model of school effects

to include more individual-level factors. $\beta_1 - \beta_9$ are the coefficient effects of the covariates on

the intercept controlling for school level diversity and size. In other words, this model assessed

main effects for the student-level variables of interest adjusting for differences between schools.

$$\text{Level 1: } Safety_{ij} = \beta_{0j} + \beta_{1j}Sex + \beta_{2j}FRL + \beta_{3j}ParentEd + \beta_{4j}VerbalHarasssment +$$
$$\beta_{5j}RacialHarassment + \beta_{6j}ViolentVictimization + \beta_{7j}SchoolConnectedness +$$
$$\beta_{8j}AcademicMotivation + \beta_{9j}AcademicAchievement + r_{ij}$$
$$r_{ij} \sim N(0, \sigma^2)$$

$$\text{Level 2 model: } \beta_{0j} = \gamma_{00} + \gamma_{01}Diversity + \gamma_{02}SchoolSize + u_{0j}$$
$$\beta_{1j} = \gamma_{00} + \gamma_{11}Diversity + u_{1j}$$
$$\beta_{2j} = \gamma_{00} + \gamma_{22}SchoolSize + u_{2j}$$
$$u_{0j} \sim N(0, \tau_{00})$$
$$u_{1j} \sim N(0, \tau_{10})$$
$$u_{2j} \sim N(0, \tau_{20})$$

Model 5 was the full model. It expanded upon the conditional model to include race-

ethnicity and interaction terms between race-ethnicity and the following student-level variables:

verbal harassment, racial harassment, violent victimization, school connectedness, academic

motivation, and academic achievement. This was the primary model of interest for this study.

$$\text{Level 1: } Safety_{ij} = B_{0j} + \beta_{1j}RaceEth + \beta_{2j}Sex + \beta_{3j}FRL + \beta_{3j}ParentEd +$$
$$\beta_{4j}VerbalHarasssment + \beta_{5j}RacialHarassment + \beta_{6j}ViolentVictimization +$$
$$\beta_{7j}SchoolConnectedness + \beta_{8j}AcademicMotivation + \beta_{9j}AcademicAchievement +$$
$$\beta_{10j}(RaceEth * VerbalHarassment) + \beta_{11j}(RaceEth * RacialHarassment) +$$
$$\beta_{12j}(RaceEth * ViolentVictimization) + \beta_{13j}(RaceEth *$$
$$SchoolConnectedness)\ \beta_{14j}(RaceEth * AcademicMotivation) + \beta_{15j}(RaceEth *$$
$$AcademicAchievement) + r_{ij}$$

$$\underline{\text{Level 2 model:}} \ \beta_{0j} = \gamma_{00} + \gamma_{01}Diversity + \gamma_{02}SchoolSize + u_{0j}$$
$$\beta_{1j} = \gamma_{00} + \gamma_{11}Diversity + u_{1j}$$
$$\beta_{2j} = \gamma_{00} + \gamma_{22}SchoolSize + u_{2j}$$
$$u_{0j} \sim N(0, \tau_{00})$$
$$u_{1j} \sim N(0, \tau_{10})$$
$$u_{2j} \sim N(0, \tau_{20})$$

Analyses for this study were conducted in RStudio using the 'nlme' package. Restricted maximum likelihood was used to account for missing data (n= 325, 258, missing on x variable = 12,226) (Enders, 2010; Finch, Bolin, & Kelley, 2014; McNeish, 2017). Because race-ethnicity, a level-1 predictor, was the substantive focus, all continuous predictor variables were group mean centered (Enders & Tofighi, 2007). Black youth were the reference group for all analyses, and to account for the large sample, size alpha levels were set at 1%. Even though tests for this study were conservative, I reported results at the 0.05 alpha level as well to allow for examination of general trends and patterns.

Results

The Unconditional Model Reveals More Within-School than Between-School Variance

Results from the unconditional model, Model 1, are presented in Table 1.2. The mean safety score for the full sample was 3.57 which is significantly different from 0. Further, the variance between high school safety scores falls within the approximate interval [0.25, 0.28], which does not cross zero, so we reject the null model that the variation is not significant. The 95% confidence interval variance in safety scores was partitioned into a variance component at the student-level and at the school-level. The intraclass correlation was 0.065, which means that approximately 6.5% of the variance in school safety scores lay between schools and 93.5% lay within schools. So, to explain the variance in feelings of school safety, level-1 moderators are needed. The remainder of this section details results for Model 5, as it was the only model to

include level-1 moderators, and the most pertinent model to my research questions. Results for

the model building process (Models 2-4) can be found in the appendix. For brevity, only

significant interactions are reported in the following tables.

Table 1.2. *Hierarchical Linear Modeling (HLM) results of the unconditional model (Model 1)*

Fixed Effects	Coefficient	*SE*	*df*	T-Ratio	*p*
Intercept (Safety)	3.57	0.0095	324407	375.73	.000***

Random Effects	Variance	*df*	T-Ratio	CI	*p*
Between-School Variability (intercept)	0.07	324407	375.73	0.25-0.28	.000***
Within-School Variability (residual)	1.005				
Intraclass Correlation	0.065				

Racial-Ethnic Differences in Feelings of School Safety

The first and second research questions for this study sought to explore Black youths'

feelings of school safety and identify potential differences between their feelings of school safety

and that of peers from other racial-ethnic groups. To answer my research questions, race-

ethnicity was added as a level-1 predictor to the full model (See Table 1.3). Results showed a

statistically significant difference between Black and White youths' feelings of school safety.

When all variables of students' social-emotional and physical experiences were at the mean, the

predicted safety score for Black students was 3.51, which is significantly lower than the

predicted safety score for White students (β=0.05, t (3.65), p<.01). No significant differences

were detected between Black and Latino, Asian, Multi-Racial, or Other Race-Ethnicity youths.

In addition to capturing racial-ethnic differences in feeling of school safety, the full

model used Black males as the reference group to assess the impact of sociodemographic and

contextual factors on feelings of school safety. Results showed that for Black female students, FRL was not significantly associated with safety scores, however, Black female students whose parents graduated college felt less safe than those whose parents did not graduate high school (β = -0.02, t (3.15), p<.01). Further, school-level diversity had a significant effect on their feelings of school safety. For Black females, an increase in school diversity was associated with feeling safer in school (β = 0.19, t (3.63), p<.01). Sex also had a significant impact on feelings of school safety. As compared to Black male students, Black female students felt significantly safer in school (β =0.05, t (2.62), p<.01).

Table 1.3. *Hierarchical Linear Modeling Results of the Full Model (Model 5)*

Fixed Effects	Coefficient	*SE*	T-Ratio	*p*
Intercept	3.51	0.036	98.58	.000***
Student-Level Variables				
Sex	0.05	0.019	2.62	.001*
FRL	0.001	0.005	0.32	0.75
ParentEd				
High School Diploma	-0.006	0.006	-0.95	0.342
Some College	-0.004	0.007	-0.62	0.533
College Graduate	-0.02	0.006	-3.15	0.002*
School-Level Variables				
Diversity	0.19	0.053	3.63	.000***
Size	-0.00002	0.00001	-1.87	0.06
Social-Emotional & Physical Experiences				
Verbal Harassment	-0.02	0.014	-1.64	0.10
Racial Harassment	-0.04	0.011	-4.04	.000***
Violent Victimization	-0.15	0.024	-6.38	.000***
Academic Motivation	0.11	0.012	9.65	.000***
School Connectedness	0.65	0.012	56.68	.000***
Academic Achievement	-0.03	0.011	-2.44	.02*
RaceEth (Black as reference)				
White	0.05	0.014	3.65	.000***
Latino	0.02	0.014	1.11	0.27
Asian	0.003	0.015	0.27	0.79
Multi-Racial	0.01	0.017	0.40	0.69
Other-Racial Group	0.016	0.021	0.79	0.43

Table 1.3. *Hierarchical Linear Modeling Results of the Full Model (Model 5) Continued…*

Fixed Effects	Coefficient	SE	T-Ratio	p
Social-Emotional & Physical Experiences Interacted with Race-Ethnicity				
RaceEth*Sex (Black Males as Reference)				
White Females	-0.09	0.020	-4.78	.000***
Latino Females	-0.02	0.100	-0.78	0.44
Asian Females	-0.07	0.021	-3.58	.000***
Multi-Racial Females	-0.04	0.024	-1.87	0.06
Other Race-Ethnicity Females	-0.07	0.030	-2.40	0.02*
RaceEth*ViolentVictimization				
White Females	-0.12	0.027	-4.49	.000***
Latino Females	-0.08	0.026	-3.27	.000***
Asian Females	-0.08	0.028	-2.27	.001*
Multi-Racial Females	-0.10	0.031	-3.27	.001*
Other Race-Ethnicity Females	-0.09	0.039	-2.10	.03*
RaceEth*SchoolConnectedness				
White Females	-0.03	0.013	-1.98	.04*
Latino Females	-0.01	0.013	-0.55	0.58
Asian Females	-0.02	0.013	-1.69	.09
Multi-Racial Females	-0.02	0.015	-1.14	0.25
Other Race-Ethnicity Females	-0.03	0.019	-1.64	0.10
RaceEth*AcademicMotivation				
White Females	-0.03	0.013	-2.11	.03*
Latino Females	-0.02	0.012	-1.62	0.10
Asian Females	-0.01	0.013	-1.02	0.31
Multi-Racial Females	-0.03	0.015	-1.74	0.08
Other Race-Ethnicity Females	-0.01	0.019	-0.40	0.69

Random Effects	Variance	df		
Between-School Variability (intercept)	0.07	196,716		
Within-School Variability (residual)	0.59			
Proportion of variance explained improvement of Model 5 over Model 1	41.05%			

The Moderating Effect of Student-Level Factors on Race-Ethnicity and Safety

The address the last research question, the full model was used to examine the extent to which different student-level factors influenced the relationship between race-ethnicity and feelings of school safety. Controlling for school size and diversity, results showed that sex,

violent victimization, academic motivation, and school connected significantly influenced the relationship between race-ethnicity and safety.

Sex as a Moderator

Sex significantly influenced the relationship between race-ethnicity and feelings of safety. Male students who identified as White, Asian, and of Other Race-Ethnicities felt safer than female students of their racial-ethnic group. However, male students who identified as Black, Latino, and Multi-Racial felt less safe than their female counterparts. With Black males as the reference group, results showed that the effect of sex (the difference in safety scores between males and females) was significantly different between Black youth and White (β= -0.09, t (-4.78), p<.01), Asian (β= -0.07, t (-3.58), p<.01), and Other Race-Ethnicity youths (β= -0.07, t (-2.40), p<.05). The effect of sex was not significantly different between Black and Latino youths (β= -0.02, t (-0.78), p=0.44) nor Black and Multi-Racial youth (β= -0.04, t (-1.87), p=0.06). I used multiple regression to test the decomposition of the interaction between race-ethnicity and sex. Results confirmed a significant difference between male and female safety scores for all racial-ethnic groups (See Figure 1.1 and Table 1.4).

Figure 1.1

Sex Moderating the Relationship between Race-Ethnicity and Feelings of School Safety
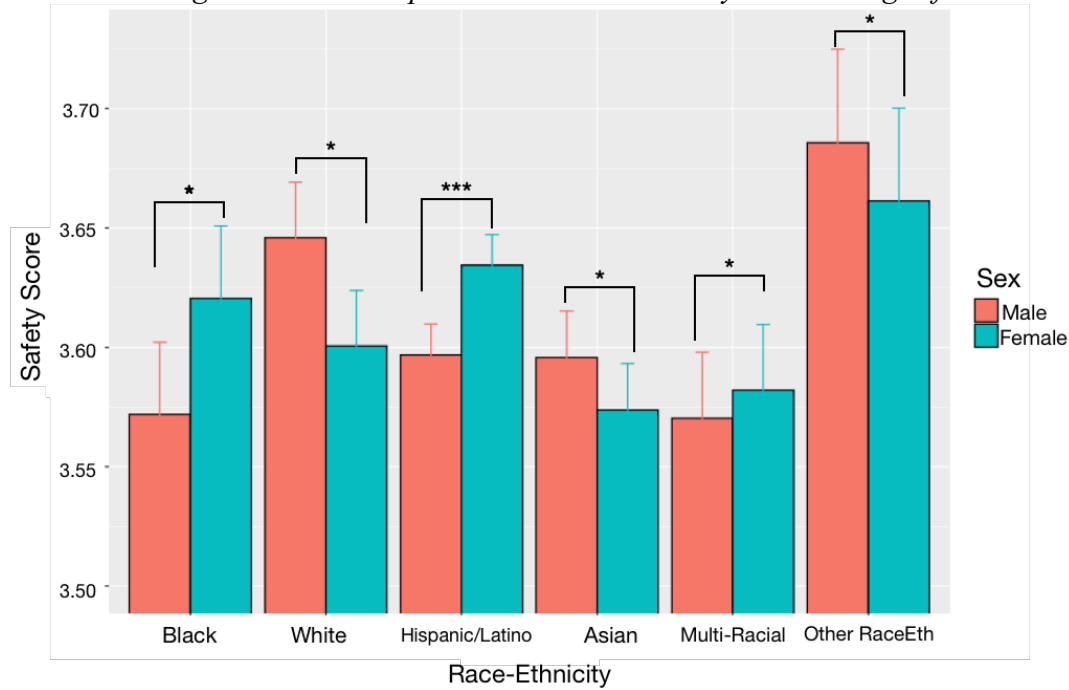
Table 1.4. *Contrast Differences Between male and female youth by RaceEth*

RaceEth	Contrast Estimates	SE	t	p
Black/African American	0.051	0.019	2.699	0.01*
White	-0.022	0.008	-2.70	.001*
Latino	0.023	0.005	4.181	.000***
Asian	-0.025	0.009	-2.885	0.04*
Multi-Racial	0.046	0.015	3.048	0.002*
Other Race-Ethnicity	-0.086	0.024	-3.647	0.003*

Violent Victimization as a Moderator

Across all racial-ethnic groups, personal experiences of violent victimization were associated with decreased feelings of school safety. However, the effect of victimization was different across racial-ethnic groups. For example, the association between victimization and feelings of school safety was significantly weaker for Black youth than White (β= -0.12, t (-4.49), p<0.01), Latino (β= -0.08, t (-3.27), p<.01), Asian (β= -0.08, t (-2.27), p<0.01), Multi-Racial (β= -0.10, t (-3.27), p<.01, and youth of Other Race-Ethnicities (β= -0.09, t (-2.10),

p<0.05). For White youth, the relationship between violent victimization and feelings of school safety was the strongest. A test of simple slopes confirmed that the differences between slopes for each racial-ethnic group were statistically significant (See Figure 1.2 and Table 1.5).

Figure 1.2
Violent Victimization Moderating the Relationship between Race-Ethnicity and Feelings of School Safety
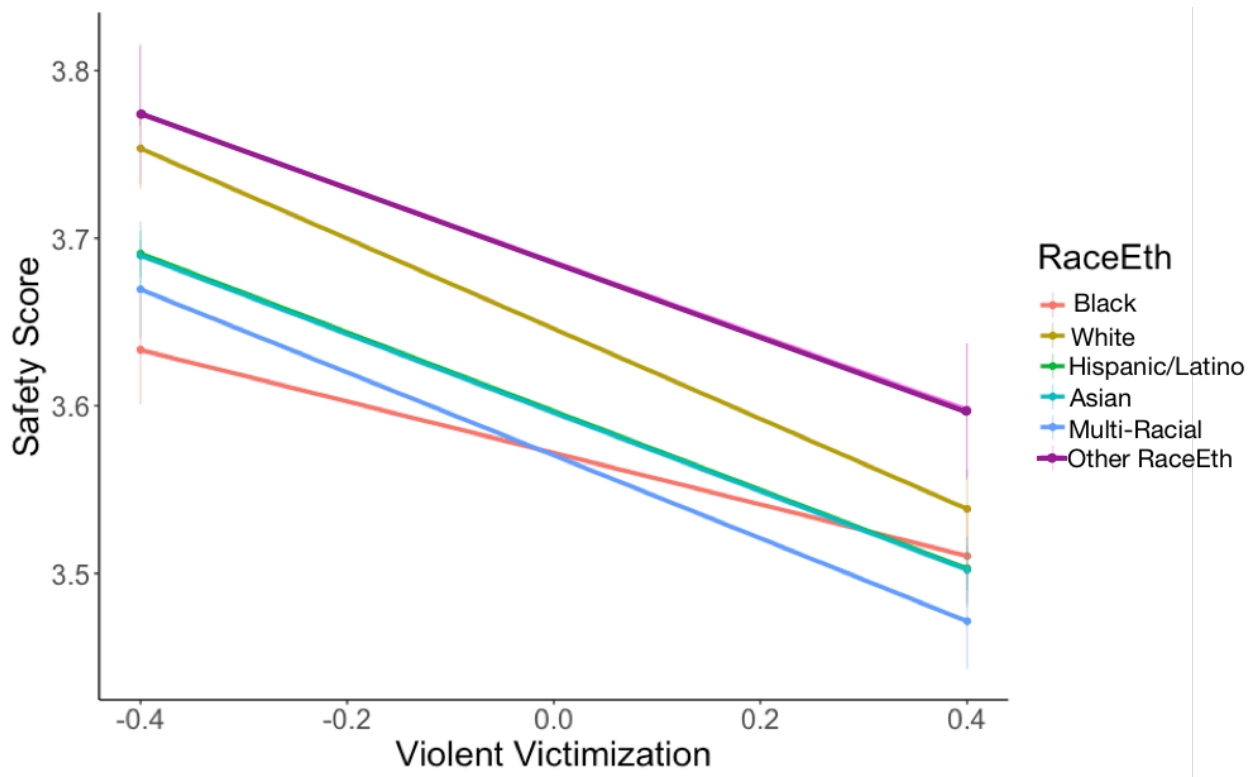
Note. Points are plotted one standard deviation (0.4) above and below the mean for the centered violent victimization variable.

Table 1.5. *Simple Slopes of Violent Victimization by Race-Ethnicity*

RaceEth	Victimization Trend	SE	Lower CL	Upper CL
Black/African American	-0.54	0.017	-0.572	-0.505
White	-0.72	0.000	-0.734	-0.697
Latino	-0.63	0.006	-0.641	-0.615
Asian	-0.69	0.010	-0.705	-0.664
Multi-Racial	-0.62	0.015	-0.648	-0.587
Other Race-Ethnicity	-0.57	0.022	-0.618	-0.530

Academic Motivation as a Moderator.

Academic motivation was associated with increased feelings of school safety for all racial-ethnic groups. However, a significant difference in the effect of academic motivation was found between Black and White youth. As evidenced by Figure 1.3, for Black youth, academic motivation was more protective than it was for White students (β= -0.03, t (-2.11), p<.05). A test of simple slopes confirmed significant differences in their slopes (β =0.47, SE=0.009, 95% CI [0.45, 0.49]). For visual clarity, a reduced version of the interaction that only highlights Black and White youth is provided (See Figure 1.4).

Figure 1.3
Academic Motivation Moderating the Relationship Between Race-Ethnicity and Feelings of School Safety
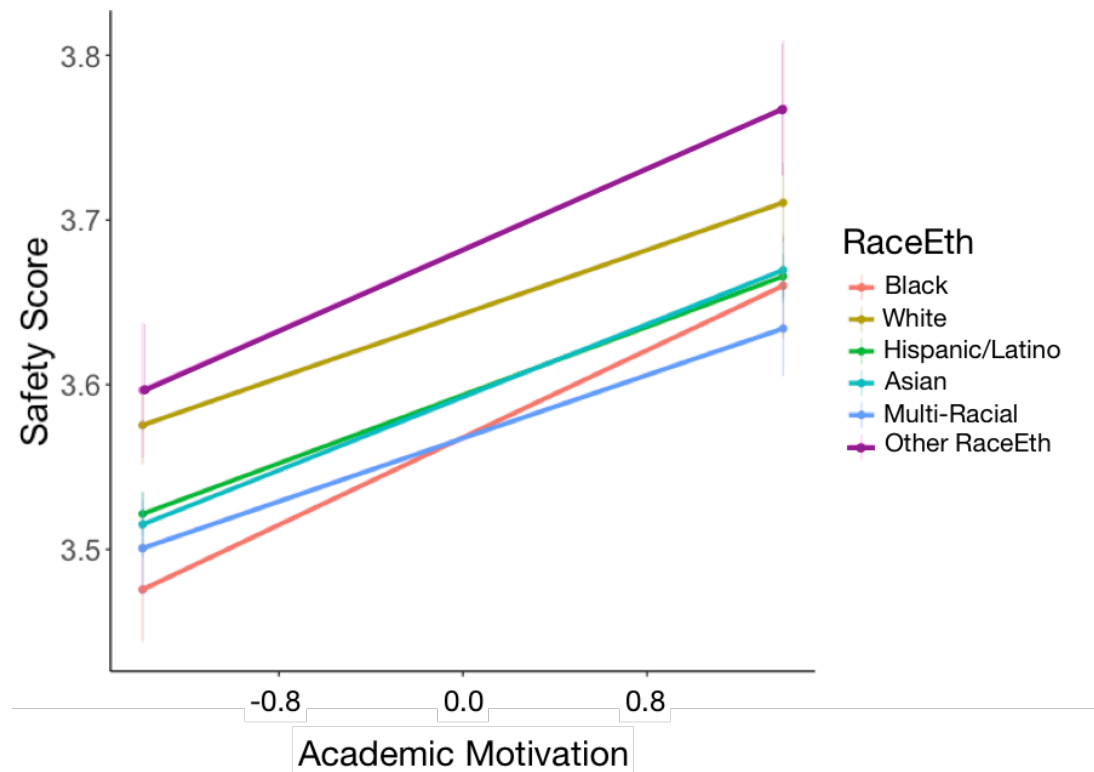
Note. Points are plotted one standard deviation (0.8) above and below the mean for the centered academic motivation variable.

Figure 1.4

Academic Motivation Moderating the Relationship Between Race-Ethnicity and Feelings of School Safety for Black and White Youth
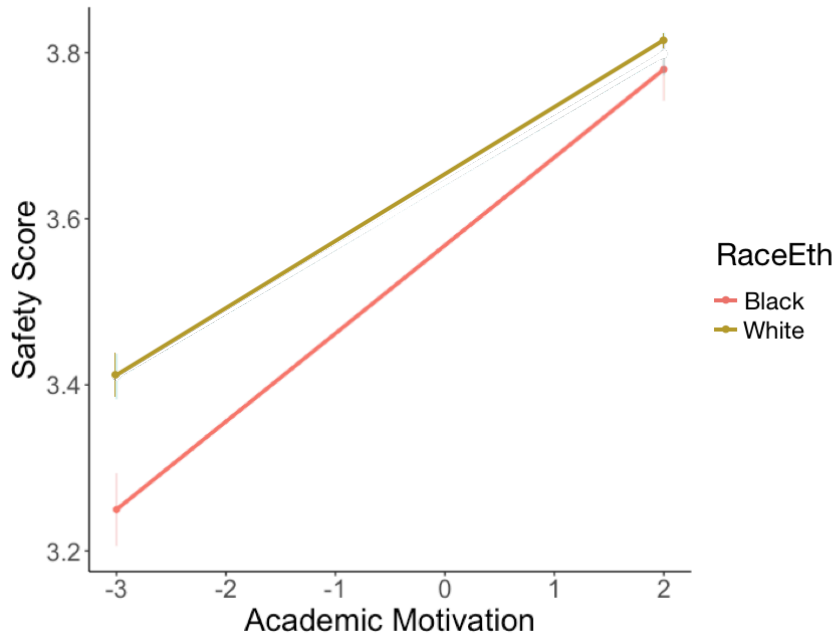
Note. This figure is a reduced version of Figure 4. For visual clarity, points were plotted at the minimum (-3.2) and maximum (1.9) of the centered academic motivation variable.

Table 1.6 *Simple Slopes of Academic Motivation by Race-Ethnicity*

RaceEth	Academic Motivation Trend	SE	Lower CL	Upper CL
Black/African American	0.47	0.019	0.457	0.490
White	0.43	0.004	0.419	0.436
Latino	0.42	0.004	0.413	0.424
Asian	0.44	0.005	0.434	0.452
Multi-Racial	0.41	0.007	0.395	0.426
Other Race-Ethnicity	0.46	0.012	0.436	0.481

School Connectedness as a Moderator.

Results also showed that school connectedness was positively associated with school safety for all racial-ethnic groups. The effect of school connectedness, however, was significantly weaker for White students than Black youth (β= -0.03, t (-1.98), p<.05). In other

words, school connectedness was more protective for Black students. Using a 95% confidence

interval, a test of simple slopes showed significant differences between the slopes of each racial-

ethnic group (Figure 1.5 and Table 1.7).

Figure 1.5
School Connectedness Moderating the Relationship Between Race-Ethnicity and Feelings of School Safety
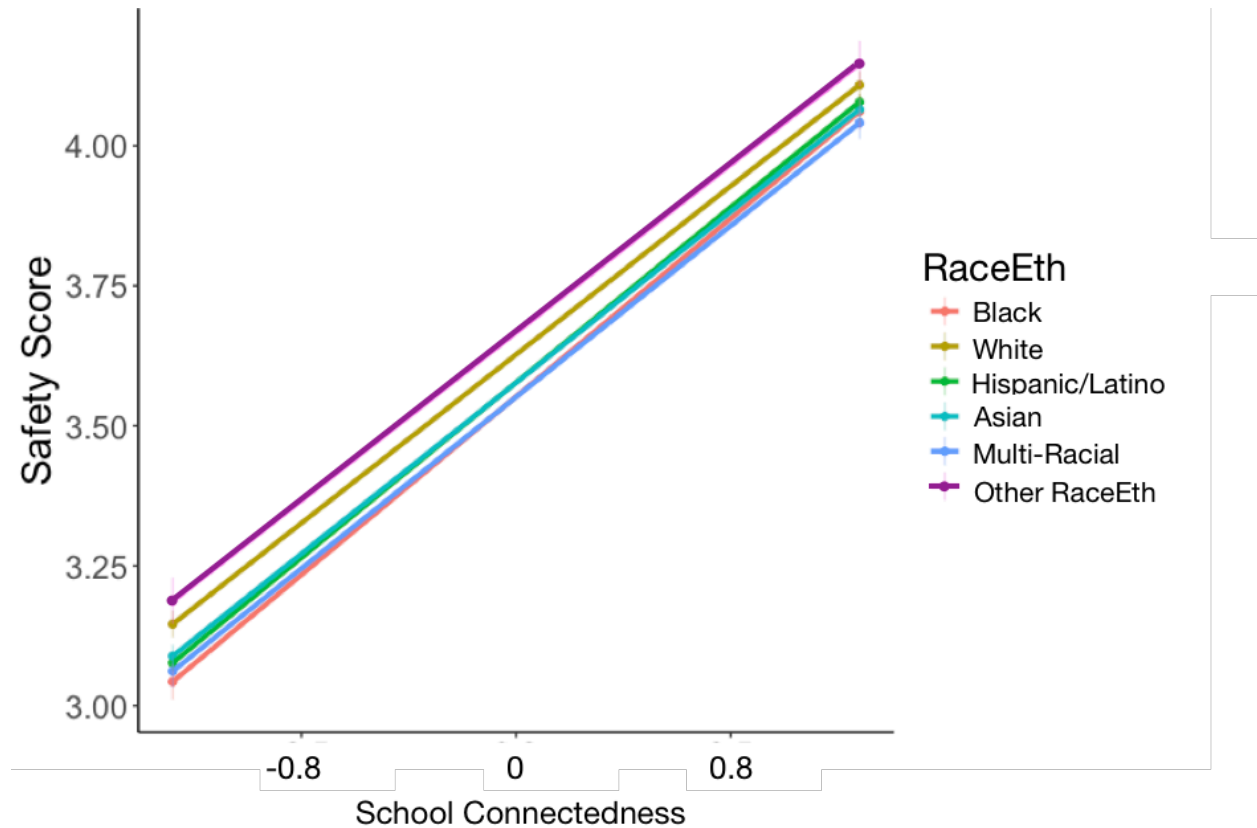
Note. Points are plotted one standard deviation (0.8) above and below the mean for the centered violent victimization variable.

Table 1.7. *Simple Slopes of School Connectedness by Race-Ethnicity*

RaceEth	SchConn. Trend	SE	Lower CL	Upper CL
Black/African American	0.748	0.001	0.733	0.763
White	0.722	0.003	0.715	0.730
Latino	0.736	0.002	0.731	0.741
Asian	0.734	0.004	0.726	0.742
Multi-Racial	0.730	0.001	0.716	0.743
Other Race-Ethnicity	0.731	0.01	0.710	0.751

Discussion

For adolescents, the high school transition is a time marked by increased vulnerability to academic declines and negative psychosocial outcomes (Barber & Olsen, 2004; Benner & Graham, 2009). For Black youth specifically, such vulnerabilities are exacerbated by an increased susceptibility to racial discrimination, negative stereotypes, and a scarcity of positive role models in schools (Holcomb-McCoy, 2007; Howard, 2019; Jernigan & Daniel, 2011). By highlighting racial disparities in 9th grade youths' feelings of school safety, findings from this study problematize general, colorblind notions of safety that fail to capture the comprehensive experiences of Black adolescents in high school.

The Race-Gap in School Safety

Results from this study showed that when controlling for sex, socioeconomic status, and school size and racial-ethnic diversity, Black 9th graders felt significantly less safe at school than their White peers. Such findings are not surprising as Black students hold more negative perceptions of school than their White peers and report more experiences of racism and lower ratings of racial fairness (Gregory et al., 2011; Skiba eta al, 2014). Moreover, Black youth are disproportionately disciplined, surveilled, and criminalized in U. S. public schools in comparison to their White peers (McKinney de Royston et al., 2020; Noguera, 2003). While the present study did not specifically assess Black students' experiences with school discipline or school policing, they are relevant considerations given the context of this study.

In the state of California, Black youth comprise approximately 6% of the student population, but 15% of student arrests. Further, in California, Black youth are more than three times as likely to be arrested by school police than their White peers (Whitaker et al., 2021). The

racialized experiences of Black youth in school coupled with the biased impact of punitive

punishment highlights a stark difference in the schooling experience of Black students and their

White peers, perhaps reflective of disparities in feelings of school safety. Prior studies with

middle school students, have also found a significant Black-White gap in feelings of school

safety (Lacoe 2015; Voight, 2015). To my knowledge, the current study is the first to provide

evidence for the gap at the high school level.

The Intersection of Race and Gender and Feelings of School Safety

This study also found an effect of sex on the relationship between race-ethnicity and

school safety. White, Asian, and Other-Race Ethnicity males felt safer at school than female

peers of the same race-ethnicity. However, Black male students felt significantly less safe at

school than Black females, and the most unsafe of all students. The challenges that exist for

Black male students have been well documented (Howard, 2010; Howard, 2014; Noguera,

2008). In schools, Black male youth are often mistreated, academically tracked out of education

opportunities, and disproportionately surveilled and disciplined (Allen, 2013; Gregory et al.,

2010; Losen & Martinez, 2013). Aware of the role that race and gender play in how they are

perceived by teachers and school administrators, to protect themselves, Black male students must

constantly work to resist unequal treatment and messages that they are deviant and anti-

intellectual— a toxically depleting task (Howard, 2010; Allen, 2013).

Despite a significant difference between Black male and female youths' feelings of

school safety, it is important to emphasize that Black girls are also marginalized in public

education in the U.S (Morris, 2016). Vulnerable to both racial and gendered forms of

discrimination, Black girls frequently fall victim to standards of femininity that sexualize their

bodies, while at the same time criminalizing them for being "too loud," "rude," and "aggressive"

(Bailey & Trudy, 2018; Crenshaw, 1991; Morris, 2005; Morris, 2016). Paradoxically, studies have found that Black adolescent girls often feel forced to adopt "tough" or "mean" attitudes for which they are reprimanded, to protect themselves from sexual harassment because their teachers fail to listen and respond to their reports (Harris & Kruger, 2020; McCullough, 2017). So, the findings of this study are not to suggest that Black girls are "doing well" in comparison to Black boys nor that Black boys should be prioritized over Black girls. Instead, they are intended to highlight the intersection of race and gender as a call for further investigation. To ensure equitable outcomes for Black youth and truly mitigate threats to their safety, frameworks and measures of school safety must be able to capture racialized gendered differences in youths' schooling experiences (Edwards, 2021).

School-Level Effect of Diversity

Results of this study also showed that for Black youth, attending a school with a racially and ethnically diverse student body was positively associated with increased feelings of school safety. This finding is consistent with extant research showing that exposure to ethnic diversity in the everyday ecology of school offers youth short and long-term benefits including but not limited to decreased social vulnerability, more complex identities, increased feelings of safety, and positive academic outcomes (Juvonen et al.,2006; Tam & Basset, 2008; Graham, 2018).

However, even in racially diverse schools, Black youth are often tracked into less rigorous classes (Ford, 2014; Lofton, 2021), disproportionately disciplined (Diamond & Lewis, 2019), and subject to bias and discrimination (Markowitz & Puchner, 2014). As such, it becomes increasingly important to complicate definitions and measures of school safety so that we may have a more specific understanding of the role of racial-ethnic diversity in shaping Black youths'

lives at school. For example, what aspects of safety does racial-ethnic diversity help bolster for Black youth in schools? Do they feel more protected from violence? From peer aggression? From racial-microaggressions? From biased curriculum? A more comprehensive understanding of how Black youth define safety, can help capture precisely *how* racial-ethnic diversity may be helpful to Black students, and elucidate instances where perhaps it has served as a threat. For example, a qualitative study by Markowitz and Puchner (2014), found that White teachers viewed racial diversity in schools as a 'necessary evil.' They felt that racially diverse settings were valuable and necessary because it would allow them to 'save' Black children from their 'difficult families', meanwhile teaching White children empathy and gratitude for what they have. Teachers and school leaders who operate under this ethos of diversity, cultivate racist school environments with grave consequences for the wellbeing and outcomes of Black youth. Thus, it is important to understand the role of racial-ethnic diversity in increasing safety for Black youth, and how racial-ethnic diversity maybe be shaping the dynamics of different school environments.

Race and Social-Emotional and Physical Indicators of Safety

As a theoretical construct**,** school safety is frequently disaggregated into social-emotional and physical indicators (Cohen et al., 2009; Thapa et al., 2013; Wang & Degol, 2016). However, in practical instruments, safety is most often assessed via items describing incidents of bullying, physical violence, and/or exposure to crime (National Center of Education Statistics, 2019; CalSCHLS, n.d.). This study explored the influence of violent victimization, school connectedness, and academic motivation on race-ethnicity and feelings of school safety. Findings showed that for youth of all racial-ethnic groups, being a victim of physical violence at school (i.e., being hit, slapped, punched, involved in a physical fight, threatened with a weapon

etc.) was associated with lower feelings of safety. However, the effect of violent victimization on feelings of school safety was least pronounced for Black youth. In this sample, approximately 10% of Black youth and 7% of White youth experienced at least one or more incidents of violent victimization. Thus, even though Black youth experienced slightly more victimization, their feelings of safety were not as negatively as they were for White youth.

In line with extant literature, this finding suggests that physical threats may not be the most salient threats to Black youths' safety, and highlights a need for a deeper focus on their social-emotional experiences at school (Edwards, 2021; Heidelburg et al., 2022). Correspondingly, results also showed that school connectedness and academic motivation were positively associated with feelings of school safety for all youth, yet significantly more protective for Black youth than their White peers. For Black students, feeling academically motivated and connected to school had a stronger positive impact on their sense of safety than it did for White students. Research shows that for Black youth experiences of discrimination are associated with decreased school connectedness (Neely, 2022). Further, Black students who experience racism and discrimination in school often internalize those experiences and begin to display low academic motivation (Scott, 2003). Thus, together both findings suggest that promoting the safety of Black youth is about more than ensuring they are protected from external physical harm. It requires nurturing an inclusive school environment and community that promotes equitable outcomes and allows Black students to be empowered and engaged participants.

Future research must go beyond simply identifying racial disparities in safety and seek understanding of how factors like school connectedness, academic motivation, and others are related to Black youths' safety. Such knowledge will yield a more relevant definition of school

safety for Black youth and a clearer understanding of factors that threaten and promote their safety. An example of research that begins to provide such understanding is a mixed-methods study by Edwards, Edwards, and Allen (2022). These researchers found that Black high school youth felt unjustly targeted and violated by school police officers. Feeling the need to protect themselves from officers at school, they dedicated much energy and attention to avoiding potential encounters which ultimately disrupted their education and decreased their academic motivation and sense of safety. Such research is critical because it illustrates the inequitable outcomes associated with implementing colorblind interventions for school safety. Further, it empowers the voices of Black students and allows them to define safety and threats to safety for themselves. As scholars we can pull from Black student narratives to better inform assessment and guide future research.

Conclusion

Findings from Study 1 confirmed a racial-ethnic disparity in feelings of school safety between Black and White 9th graders in California. The study also highlighted the intersection of race and gender when examining school safety for Black youth and drew attention to the positive impact of school connectedness and academic motivation on Black youths' feelings of school safety while calling into question whether physical factors are being overemphasized.

A limitation of this study was the inability to disaggregate the racial-ethnic category "Multi-Racial" into corresponding subgroups due to lack of data. Such limitations restricted the ethnic diversity of the different racial categories. For example, regardless of race all Latinos were coded as "Latino," otherwise there would have been a doubtful overrepresentation of Multi-Racial youth in this study. Had the data allowed for more precise racial and ethnic identification, perhaps more differences between Black youth and their non-White peers would have come

forward. Nonetheless, the study highlighted important factors to consider when assessing the safety of Black youth. The following chapter of this dissertation builds from Study 1 by exploring the potential for a more racially and culturally relevant measure for assessing Black youths' feelings of school safety.

STUDY 2

Measuring Black Student Safety: Using Higher-Order Confirmatory Factor Analysis to Validate

a New Measure with California Healthy Kids Survey

Measuring Black Student Safety: Using Higher-Order Confirmatory Factor Analysis to Validate

a New Measure with the California Healthy Kids Survey

Study 1 of this dissertation drew comparisons between Black youth and youth of other racial-ethnic groups to understand the impact of different student-level and school-level factors on feelings of safety. Building from Study 1, Study 2 explored how Black youth experience safety at school more deeply. Drawing on the California Healthy Kids Survey (CHKS), the current study utilized a sample of 877 Black ninth grade students from 65 public high schools to conduct a confirmatory factor analysis (CFA) and empirically validate a new, hypothesized multifactorial measure of Black Student Safety (BSS). I focused solely on Black youth to allow for their experiences to come forward to inform future research specific to them. Because current measures of school safety have left gaps in our understanding of Black youth, exploring a measure specific to them and their perceptions is both relevant and timely

The current study drew from Edwards (2021) which posits that ensuring the safety of Black students necessitates a comprehensive definition of safety and highlights six critical dimensions of safety to consider: racial–cultural, gender and queer identity, academic, social– emotional, interpersonal, and physical safety. Building from Edwards (2021), the impetus for this study was to provide empirical evidence that a single-item measure of school safety is not sufficient for assessing Black youths' feelings of school safety because it does not address multiple dimensions of safety. As such, this study compared the predictive power of a multifactorial construct of safety and a single-item measure of safety. It is important to note that the items used in this study did not explicitly ask youth about their race or experiences with institutional racism in school. Instead, I applied a racial lens and used extant literature on Black

youths' experiences in U.S. public education, to inferentially identify items capable of speaking to Black youths' racialized experiences at school via day-to-day interpersonal interactions and overall perceptions of school.

Methods

Data for this study came from 3 separate modules of the 2017-2018 and 2018-2019 CHKS high school administration: 1) the core module 2) the school climate module and 3) the community health module. The school climate and community health modules are supplementary to the core module, and so schools and school districts opted into completing them as additional surveys. The school climate module assesses academic rigor and supports, respectful relationships, student motivation and classroom involvement, discipline and enforcement of rules, and quality of facilities maintenance. The community health module assesses and identifies community conditions, supports for youth, and youth community engagement. The analytic sample for this study consisted of 9th grade students from public high schools in California who participated in all three modules and self-identified as Black/African American (See Appendix B). The analytic sample was 877 Black 9th graders from 65 public schools. In the analytic sample, 25.4% of respondents identified as male, 23.1% identified as female, and 51.5% were unknown due to random missingness. Missing cases were still included in analyses; however, gender comparisons were not possible—a limitation of this study.

Although including more than one module decreased the sample size and may have potentially introduced some bias if schools who opted into the same surveys shared some underlying characteristics, the decision to focus on three modules was warranted. Three modules allowed for a larger, more comprehensive pool of relevant items from which to choose for the

factor analysis. Also, it allowed for the unique opportunity to empirically examine Black youths'

perceptions of school police and its relation to their feelings of school safety. To my knowledge,

this is the first study to do so.

Binning and Winnowing the Item Pool

Items across all three modules were compiled into a single pool of 241 items. The first

steps of this study included binning and winnowing of items. Figure 2.1 provides a schematic of

the entire process. I collaborated with a fellow education researcher with relevant skills and

content expertise to follow a similar "binning and winnowing" process as that implemented by

DeWalt and colleagues (2007) and replicated by Edelen and colleagues (2012). First, I

independently sorted through the initial pool to remove items that were undoubtedly out of the

scope of the study because they either did not pertain to issues of school safety as conceptualized

in this paper or they were not of relevance to the research questions. For example, excluded

items included questions like *"When did you last visit a dentist to get your teeth checked or*

cleaned" and *"During the past 30 days, on how many days did you smoke cigarettes?"* At the

end of that process, 114 items remained. I then independently sorted the items into "bins"

according to the dimension of safety they best encapsulated as defined by Edwards (2021). The

sorting process was largely informed by the definitions posited for each dimension (see Table

2.1).

Table 2.1 *Edwards (2021) Definitions for 6 Dimensions of Safety for Black Youth*

Racial-Cultural Safety: Black students feel racially and culturally safe when they can see themselves in their education, and who they are and where they are from informs and enriches their learning.
Gender & Queer Identity Safety: Black students feel gender and queer identity safety when they are free to explore a variety of interests and can unabashedly experience personhood via varying forms of self-expression and partnership.
Academic Safety: Black students feel academically safe when they are unafraid to make mistakes in pursuit of new skills and knowledge, and when they feel affirmed that they can learn and achieve success as themselves.
Social-Emotional Safety: Black students feel social–emotionally safe when they feel free to explore and express their genuine thoughts and feelings via a range of emotion without fear of judgment or risk of exclusion.
Interpersonal Safety: Black students feel interpersonally safe when they have dependable relationships with caring, empathetic peers and adults who know them and whom they can turn to for personal encouragement, material resources, and/or academic support.
Physical Safety: Black students feel physically safe when they are not psychologically, emotionally, or physiologically burdened by the threat of bodily harm, and feel confident that they can rely on school to help meet their essential needs.

To further reduce the number of items, I reviewed them a second time and removed items with duplicate content, lack of clarity, and those that upon a second revision still seemed out of the scope of the study. I also removed the gender and queer identity bin due to insufficient data on account of missingness on the gender variable. Upon narrowing the pool to 47 items, I asked my collaborator to independently sort the items into the remaining 5 bins. At the end of the process, my collaborator and I compared our resultant bins and discussed discrepancies until a resolution was found. The biggest discrepancy was with the social-emotional and interpersonal bins, as we struggled to make clear distinctions between items for each bin. Ultimately, we decided to omit both bins as none of the items truly captured the essence of the definition put

forth by Edwards (2021). Further, because there was so much fluidity between the bins and high correlation between the items, we did not anticipate that the CFA would extract distinct factors. We also added a new bin—perceptions of school police. Perceptions of school police is not one of the outlined dimensions of school safety in Edwards (2021), however, given applicable items from the community health module and relevance to the experiences of Black youth in school, we decided to maximize the opportunity to include it as a bin. Finally, upon deciding on racial-cultural safety, academic safety, physical safety, and perceptions of police as the final 4 bins, my collaborator and I sorted through the remaining items one last time and removed any remaining items deemed unfit. The final pool resulted in 22 items across the 4 different bins.

Figure 2.1.
Schematic of Item Pool   Development

127 items not binned

Outside of defined scope of study (scope = Black youths' perceptions of potentially racialized experiences at school)

Total pool of items from core, school climate, and community health modules: 241 items

114 items sorted into 5 bins

67 items and 1 bin removed

Gender and Queer Identity bin was removed due to lack of data. Additional items in remaining bins removed:

Duplicate content-13
Item beyond scope-44
Lack of clarity-12

Racial-Cultural (32)

Academic (26)

Gender & Queer Identity (3)

Social-Emotional (20)

Interpersonal (13)

Physical(20)

Note: r signifies bins that were removed

Racial-Cultural (13)

Academic (8)

Social-Emotional(8) r

Interpersonal(10) r

Physical (8)

Perceptions of Police a

Note: a signifies a bin that was added

2 bins removed and 1 added

Inability to make a clear distinction between the two bins, and high correlation between all the items resulted in 2 bins being removed, an additional bin being added, and items being organized.

Racial-Cultural (5)
Academic (5)
Physical (4)
Perceptions of Police (5)

25 items removed

Lack of inter-rater agreement- 14

Lack of clarity/not easily categorized- 11

Final Pool for Item Analysis:
22 items representing 4 conceptual dimensions of safety for Black youth

Racial-Cultural (7)   e.g. "*Teachers at this school treat students fairly*"
Academic (5)   e.g. "*My teachers give me useful feedback on my work*"
Physical (5)   e.g. "*The schoolyard and buildings are clean and in good condition*"
Perceptions of Police (5)   e.g. "*The officer at my school treats all students with respect regardless of race, ethnicity, or nationality*"

Analytic Plan

     Item Analysis. Before running the CFA, I conducted an item analysis to assess inter-item correlation, item-total scale score correlation, and Cronbach's alpha for the items in each factor. This process allowed for the identification of potentially "misbehaving items" that could impact the results of the confirmatory factor analysis. For each factor, items that did not meet the .30 threshold for item-total scale score correlation, items that were not in the acceptable range of .20-.40 for inter-item correlation, and items that reduced the factor's alpha below the .700 minimum threshold were omitted (Lin, 2020). Ultimately, 16 items were brought forth for the CFA. For items and descriptive statistics see Table 2.2. It is important to note, that at this stage in the research process, the Physical Safety factor was re-identified as Physical-Environmental because items that came forward focused largely on the environmental conditions of schools.

Table 2.2. *Descriptive Statistics for Factors and Items Pulled Forward for CFA*

Variable	Item Text	N	M	SD
Racial-Cultural				
A24	*I feel happy to be at this school*	826	3.31	1.14
A25	*The teachers at this school treat students fairly*	835	3.21	1.13
A29	*Parents feel welcome to participate at this school*	833	3.31	1.03
A30	*School staff take parent concerns seriously*	831	3.29	1.08

Cronbach's α: 0.79
Mean inter-item correlation: 0.49

Variable	Item Text	N	M	SD
Academic				
Sc3	*My teachers work hard to help me with schoolwork when I need it*	836	3.35	1.18
Sc4	*Teachers show how classroom lessons are useful in real life*	835	3.20	1.23
Sc9	*My teachers give me useful feedback on my work*	818	3.31	1.21
Sc50	*This school promotes academic success for all students*	785	3.28	1.09

Cronbach's α: 0.86
Mean inter-item correlation: 0.60

Table 2.2 *Descriptive Statistics for Factors and Items Pulled Forward for CFA Continued…*

Variable	Item Text	N	M	SD
Physical-Environmental				
Sc41	*The schoolyard and buildings are clean and in good condition*	779	2.97	1.17
Sc42	*My classroom is so crowded it is hard to concentrate and learn*	777	2.62	1.11
Sc45	*The school grounds are kept clean*	777	2.89	1.14
Sc52	*The school has clean drinkable water*	780	3.17	1.12

Cronbach's α: 0.72
Mean inter-item correlation: 0.39

Variable	Item Text	N	M	SD
Police-Perceptions				
Bhc45	*I feel safer with the officer at school*	771	2.43	1.09
Bhc47	*The officer has a good relationship with students*	769	2.25	1.07
Bhc49	*The officer treats all students with respect no matter the race, ethnicity, or nationality.*	766	2.48	1.08
Bhc50	*The officer does a good job of stopping violence at school*	765	2.32	1.07

Cronbach's α: 0.91
Mean inter-item correlation: 0.74

Confirmatory Factor Analysis. In accordance with expert recommendations for higher order confirmatory factor analysis, to make an informed argument about the presence of a higher order model for Black Student Safety, I tested three different models (Crede & Harms, 2015). The first model was the oblique lower-order 4-factor model, which freely estimated all the relationships among the lower-order factors—racial-cultural, academic, and physical-environmental safety, and perceptions of school police. This model is important to test because a better fit for this model than for the higher order model implies that the higher-order factor (Black Students Safety) is unable to accurately model the relationships among first order factors.

First, I used the CFA function in RStudio Lavaan to fit the model and standardize the 4 latent variables. The CFA function imposes several defaults consistent with how CFA models are

typically specified, and it enables the specification of models with compact model syntax

objects. For example, by default, latent variables have means set to zero but freely estimate

variance. Additionally, the factor loading of the first indicator for each latent variable is set to

one while the intercept for this indicator is freely estimated. I overrode the defaults to implement

the scaling option and implemented the =~ operator to define latent variables (on the left) and the

specific items that load onto them (on the right). In fitting the model, I specified std.lv=TRUE

within the CFA function call to override the default hybrid scaling and instead ask Lavaan to (1)

standardize the factors and (2) freely estimate all loadings. The resulting syntax was:

```
Cfa.1<-
    Racial-Cultural=~a24 + a25 + a29 + a30
    Academic=~ sc3+ sc4 + sc9 + sc50
    Physical-Env=~ sc41 + sc42 + sc45 + sc52
    Police-Perc=~bhc45 + bhc47 + bhc49 + bhc50
Fit.1<-cfa(cfa.1, data=s2data2, meanstructure=TRUE, std.lv=TRUE)
```

Then, to assess the higher order model, I added Black Student Safety as an additional

latent construct, based on the previous 4 factors using the SEM function.

```
Sem1<-
    Racial_Cultural=~a24 + a25 + a29 + a30
    Academic=~ sc3+ sc4 + sc9 + sc50
    Physical_Env=~ sc41 + sc42 + sc45 + sc52
    Police_Perc=~bhc45 + bhc47 + bhc49 + bhc50
Black_Student_Safety =~ Racial_Cultural + Academic +
Physical_Env + Police_Perc'
Fit.sem1<-sem(sem1, data=s2data2, meanstructure=TRUE,
std.lv=TRUE)
```

Finally, the last CFA model I tested was a single factor model. The single factor model is

a simpler representation of first order factors than the higher order model because the

correlations among first-order factors are constrained to the same latent variable. A well-fitting

single factor model suggests that all manifest variables are indicators of a common latent factor.

```
SFM<- ' f =~a24 + a25 + a29 + a30 + sc3+ sc4 + sc9 + sc50 +
sc41 + sc42 + sc45 + sc52+ bhc45 + bhc47 + bhc49 + bhc50
SingleFactorModel<- cfa (sfm, data=s2data2, std.lv=TRUE)
```

In all, I judged the extent to which each model approximated the data with fit indices

(See Table 2.3). A nonsignificant model chi-square test was desired as it would signify that the

structure approximates the underlying data and should not be rejected. However, the test is

overly sensitive to sample size (Bollen, 1989; Lac & Donaldson, 2017). Thus, the comparative

fit index (CFI) and the non-normed fit index (NNFI; also known as TLI) were also inspected.

Values could range from 0 to 1, with higher values, preferably above .90, indicating better model

fit (Ullman, 2007; Ullman & Bentler, 2003; Lac & Donaldson, 2017). Two residual based

indices were also interpreted. The standardized root square mean residual (SRMR) is adequately

sensitive in detecting model misspecification, with values below .08 considered desirable (Hu &

Bentler, 1998; Lac & Donaldson, 2017). The root mean-square error of approximation (RMSEA)

with values below.05 indicate close fit, between .05 and .08 fair fit, between .08 and .10

mediocre fit, and above .10 poor fit (MacCallum, Browne, & Sugawara, 1996; Lac & Donaldson,

2017). Further, in each model, items with statistically significant loadings above a magnitude of

.30 were deemed as adequately capturing their respective constructs (Lac & Donaldson, 2017).

No convergence problems were encountered.

Hierarchical Linear Modeling. Finally, the last step of analyses for this study was to

construct a Black Student Safety variable by taking the average of the four-factors and then using

the new variable in a series of HLM models. HLM analyses assess the extent to which BSS

predicted feelings of safety, perceptions of caring relationships at school, academic motivation,

and student goals and aspirations above and beyond the single-item measure of safety provided

by CHKS. Following a similar process as Study 1, each full HLM model controlled for school

size and racial-ethnic diversity as well as parent-level education and participation in free-reduced

lunch programs. As in Study 1, school safety was assessed via the item, "*I feel safe in my school*" and academic motivation was assessed as the mean for four items such as, *"I try hard to make sure that I am good at my schoolwork"* (α=.89). Perceptions of caring relationships at school was assessed as the mean of 3 items including, *"At my school, there is a teacher or adult who really cares about me"* and *"At my school there is a teacher or adult who listens to me when I have something to say"* (α=.80). Goals and aspirations were assessed as the mean of 2 items including, *"This school has helped me put my college and career goals and experiences into a plan"* and *"This school has helped me think about and explore future career goals."* Responses for all items were on a 5-point Likert scale from 1=strongly agree to 5=strongly disagree.

Results

Higher Order Confirmatory Factor Analysis

The chi-square for the higher order model was significant at the .01 alpha level, indicating some level of misspecification, however, the values for the global fit statistics are generally deemed acceptable (CFI=.940, TFI=.928, SRMR=.077, RMSEA=.072). The data fit both the 4-factor model and the higher-order model similarly, however, the higher-order model had more degrees of freedom which signal fewer parameters, thereby deeming it a more parsimonious and favorable model (Mulaik, 2001; Preacher, 2006; see Table 2.3). More specifically, the oblique lower-order 4-factor model had 6 correlations between the four factors that were replaced with 4 factor loadings in the higher-order model, thus simplifying the model. The single factor model had the worst fit by all indices (CFI= 0.582, TFI= 0.518, SRMR= 0.122, RMSEA= 0.187). For brevity and scope, the remainder of this section only focuses on the

higher-order model. See Appendix D for figures of the four-factor model and the single-factor model.

In addition to acceptable fit indices, the higher-order model also had significant loadings well above the .30 threshold. The only item that did not meet the threshold was item Sc42—"*My classroom is so crowded it is hard to concentrate and learn.*" This item had a 0.22 loading onto the factor physical-environmental safety, thereby providing evidence to support dropping the item from the model (see Table 2.4). Prior to dropping the item, I reverse coded it to test whether it would make a significant change in the loading, which it did not. As such, the subsequent HLM analyses, did not include item Sc42.

Table 2.3 *Fit Indices for the 3 Different CFA Models Tested in Study 2*

Model	χ^2	df	p	CFI	TFI	SRMR	RMSEA
Oblique Lower Model (4-factor model)	421.79	98	<.01	.940	.927	.077	.073
Higher-Order Model (Black Student Safety)	424.61	100	<.01	.940	.928	.077	.072
Single-Factor Model	2375.83	104	<.01	.582	.518	.122	.187

Figure. 2.2.
Higher Order Model of Black Student Safety
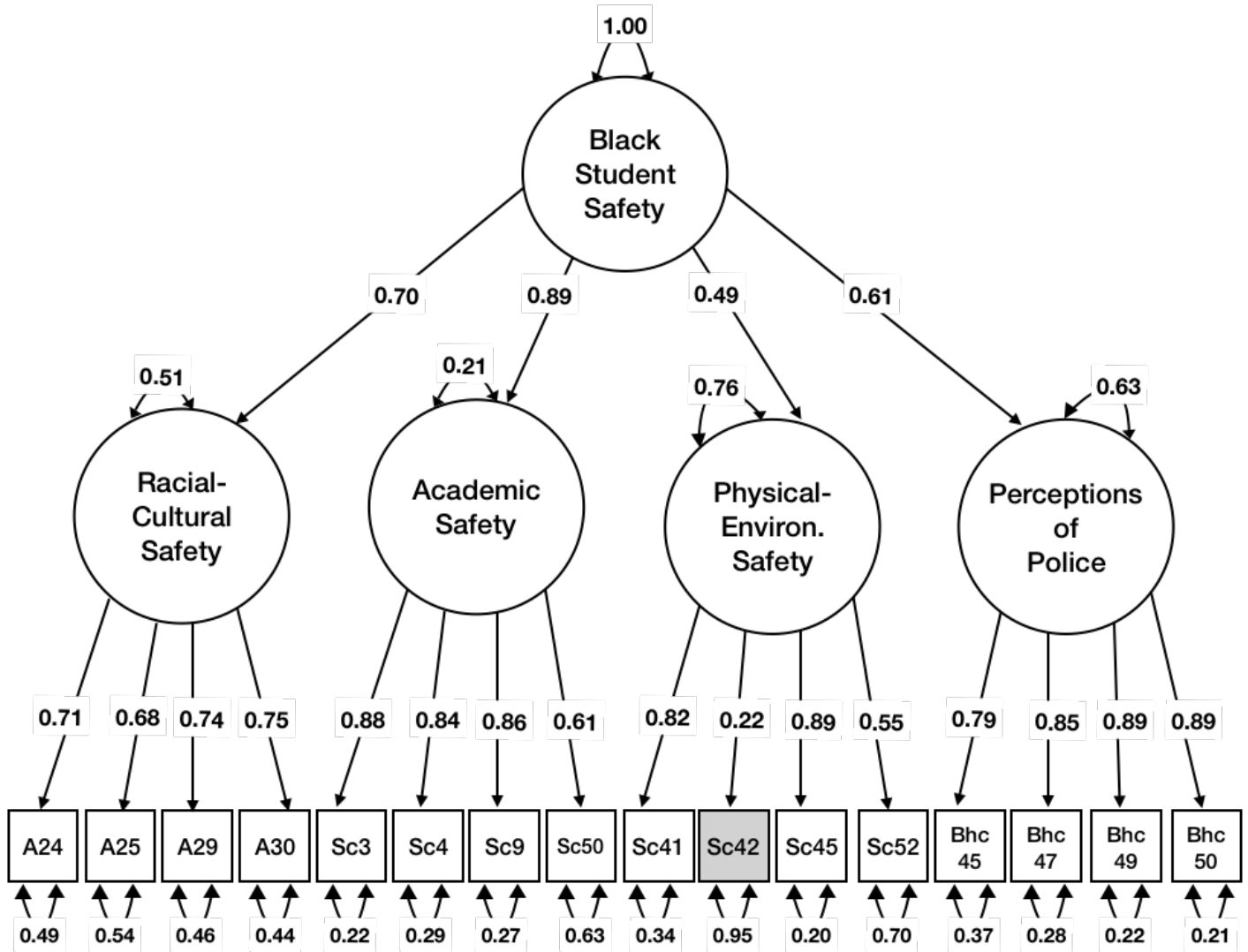
Table 2.4. *Standardized Factor Loadings for Higher-Order Black Student Safety Model*

Variable	Item Text	*β*	*SE*	*p*
Racial-Cultural		0.70	0.095	.000
A24	*I feel happy to be at this school*	0.71	0.038	.000
A25	*The teachers at this school treat students fairly*	0.68	0.038	.000
A29	*Parents feel welcome to participate at this school*	0.74	0.036	.000
A30	*School staff take parent concerns seriously*	0.75	0.037	.000
Academic		0.89	0.316	.000
Sc3	*My teachers work hard to help me with schoolwork when I need it*	0.89	0.062	.000
Sc4	*Teachers show how classroom lessons are useful in real life*	0.84	0.063	.000
Sc9	*My teachers give me useful feedback on my work*	0.86	0.061	.000
Sc50	*This school promotes academic success for all students*	0.61	0.042	.000
Physical-Environmental		0.49	0.060	.000
Sc41	*The schoolyard and buildings are clean and in good condition*	0.82	0.040	.000
Sc42	*My classroom is so crowded it is hard to concentrate and learn*	0.22	0.041	.000
Sc45	*The school grounds are kept clean*	0.89	0.040	.000
Sc52	*The school has clean drinkable water*	0.55	0.039	.000
Police-Perceptions		0.61	0.069	.000
Bhc45	*I feel safer with the officer at school*	0.79	0.034	.000
Bhc47	*The officer has a good relationship with students*	0.85	0.032	.000
Bhc49	*The officer treats all students with respect no matter the race, ethnicity, or nationality.*	0.89	0.033	.000
Bhc50	*The officer does a good job of stopping violence at school*	0.89	0.033	.000

Hierarchical Linear Models Part 1: Black Student Safety as an Aggregate Predictor

Upon confirming a factor structure for Black Student Safety, I tested its predictive power. More specifically, I tested the extent to which Black Student Safety as an aggregate construct (comprised of the mean of its 4-factors) predicted feelings of school safety as traditionally assessed in CHKS. I also tested how Black Student Safety predicted perceptions of caring relationships, academic motivation, and student goals and aspirations. With these analyses, I was particularly interested to test whether Black Student Safety predicted outcomes beyond the single-item measure of safety used in CHKS, and so I included the single-item of safety in the HLM models as well. Moving forward, the single-item measure of safety will also be referred to as CHKS Safety for clarity.

Unlike Study 1, the HLM analyses in the current study focus only on Black students and did not draw comparisons across different racial-ethnic groups. Further, this study did not include interactions, and research questions were not particularly concerned with adding new covariates to the model to try and explain as much variance as possible. As such, continuous level-1 predictors in this study were group mean centered (Enders & Togachi, 2007). Given a lack of clear guidance or strong consensus for reporting effect sizes in multilevel models, grand mean centering also served to standardize each variable before analysis (Lorah, 2018). Such standardization helped to provide information about the magnitude of the effect (after controlling for other covariates and nesting) via standardized coefficients (Lorah, 2018). For concision and clarity, the following HLM results only report findings from the final models. Last, because my sample is so large, I set the alpha level at 1% to reduce the likelihood of Type I error well below 5%. However, for the sake of examining general trends and patterns, I do still report results between a .01 and .05 alpha level.

Black Student Safety Predicting CHKS Safety. Results showed that when the sample mean is set to 0, CHKS safety scores for 9th grade Black youth is 3.29. Further, controlling for all school-level and student-level factors, Black Student Safety significantly predicted CHKS safety (β=0.52, t (13.49), p<0.01). For every one-unit increase in Black Student Safety, CHKS safety increased by 0.52 (See Table 2.5).

Table 2.5. *HLM Results of Black Student Safety Predicting CHKS Safety*

Fixed Effects	Coefficient	SE	df	T-Ratio	P
Intercept (CHKS Safety)	3.29	0.22	522	14.69	.000***
Black Student Safety	0.52	0.04	552	13.49	.000***
Parent Ed					
High School Diploma	0.07	0.14	552	0.47	0.64
Some College	0.26	0.14	552	1.86	0.06
College Graduate	0.04	0.13	552	0.35	0.73
Free-Reduced Lunch	-0.08	0.07	552	1.09	0.25
School Diversity	0.008	0.007	58	1.09	0.28
School Size	0.00007	0.00007	58	0.99	0.32
Random Effects	Variance	df			
Between-School Variability (intercept)	0.17	552			
Within-School Variability (residual)	0.83				

Black Student Safety Predicting Caring Relationships. When the sample mean is 0, Black youth scores for caring relationships is 2.67. Controlling for all student and school level factors, Black Student Safety significantly predicted caring relationships (β=0.33, t (9.41), p<0.01). For every one-unit increase in Black Student Safety, caring relationships increased by 0.33. CHKS Safety and Black Student Safety both significantly predicted perceptions of caring relationships, however, the effect of CHKS Safety on caring relationships was much weaker than that of Black Student Safety (β=0.11, t (3.27), p<0.01) (See Table 2.6)

Table 2.6. *HLM Results of Black Student Safety Predicting Caring Relationships*

Fixed Effects	Coefficient	SE	df	T-Ratio	p
Intercept (Caring Relationships)	2.67	0.18	539	14.83	.000***
Black Student Safety	0.33	0.04	539	9.41	.000***
CHKS Safety	0.11	0.03	539	3.27	.001***
Parent Ed					
High School Diploma	0.09	0.11	539	0.87	0.39
Some College	0.14	0.11	539	1.22	0.39
College Graduate	0.08	0.10	539	0.83	0.22
Free-Reduced Lunch	-0.04	0.06	539	-0.77	0.44
School Diversity	0.0007	0.006	58	0.13	0.89
School Size	0.00003	0.00006	58	0.58	0.56

Random Effects	Variance	df
Between-School Variability (intercept)	0.17	546
Within-School Variability (residual)	0.83	

Black Student Safety Predicting Academic Motivation. When the sample mean is set to 0, Black youth scores for academic motivation was 3.76. Controlling for all student and school level factors, Black Student Safety significantly predicted academic motivation for Black youth (β=0.35, t (9.70), p<0.01). For every one-unit increase in Black Student Safety, academic motivation increased by 0.35. Again, the effect of Black Student Safety was much stronger than that of CHKS Safety (β=0.22, t (6.25), p<0.01). (See Table 2.7).

Table 2.7. *HLM Results of Black Student Safety Predicting Academic Motivation*

Fixed Effects	Coefficient	SE	df	T-Ratio	p
Intercept (Academic Motivation)	3.87	0.19	539	20.64	.000***
Black Student Safety	0.35	0.04	539	9.70	.000***
CHKS Safety	0.22	0.04	539	6.25	.000***
Parent Ed					
High School Diploma	0.14	0.12	539	1.23	0.22
Some College	0.17	0.11	539	1.53	0.13
College Graduate	0.16	0.10	539	1.54	0.12

Table 2.7. *HLM Results of Black Student Safety Predicting Academic Motivation Continued…*

Fixed Effects	Coefficient	SE	df	T-Ratio	p
Free-Reduced Lunch	0.008	0.06	539	0.13	0.89
School Diversity	0.006	0.006	58	1.02	0.31
School Size	-0.0001	0.00006	58	-1.58	0.12
Random Effects	Variance	df			
Between-School Variability (intercept)	0.14	539			
Within-School Variability (residual)	0.85				

Black Student Safety Predicting Goals and Aspirations. When the sample mean is set to 0, the mean score for goals and aspirations was 3.55. Controlling for all student and school level factors, Black Student Safety significantly predicted goals and aspirations for Black youth (β=0.83, t (22.74), p<0.01). For every one-unit increase in Black Student Safety, goals and aspirations increased by 0.83. Unexpectedly, CHKS Safety had the opposite effect on goals and aspirations, for every one-unit increase in CHKS Safety, goals and aspirations *decreased* by 0.15 (β=-0.15, t (-4.03), p<0.01) (See Table 2.8).

Table 2.8. *HLM Results of Black Student Safety Predicting Goals and Aspirations*

Fixed Effects	Coefficient	SE	df	T-Ratio	p
Intercept (Goals and Aspirations)	3.52	0.19	543	18.60	.000***
Black Student Safety	0.83	0.04	543	22.74	.000***
CHKS Safety	-0.15	0.04	543	-4.03	.001***
Parent Ed					
High School Diploma	0.01	0.12	543	0.08	0.93
Some College	-0.03	0.12	543	-0.27	0.78
College Graduate	-0.005	0.10	543	-0.05	0.95
Free-Reduced Lunch	-0.03	0.06	543	-0.42	0.67
School Diversity	0.002	0.006	58	0.37	0.71
School Size	-0.001	0.00007	58	-1.81	0.08
Random Effects	Variance	df			
Between-School Variability (intercept)	0.035	543			
Within-School Variability (residual)	0.96				

Hierarchical Linear Models Part 2: 4-Factors of Black Student Safety as Predictors

In addition to assessing the predictability of Black Student Safety as an aggregate construct, I also tested the predictive power of the four separate factors—racial-cultural safety, academic safety, physical-environmental safety, and perceptions of school police. This analysis was important because it allowed for a deeper look into the influence of each individual factor on the different outcomes examined in this study. Again, I included the single-item measure of school safety provided by CHKS in each model to compare effects.

Racial-Cultural and Academic Safety Predict CHKS Safety. Results showed that when controlling for school-level and student factors, racial-cultural safety significantly predicted Black youths' feelings of CHKS safety (β=0.68, t (16.47), p<0.01). Physical-environmental safety also significantly predicted CHKS Safety, but the effect was not as strong (β=0.09, t (2.32), p<0.05). Academic safety was significantly, *negatively* associated with CHKS Safety (β=-0.10, t (-2.09), p<0.05), and perceptions of school police was not significantly associated with CHKS Safety (See Table 2.9).

Table 2.9. *HLM Results of Black Student Safety Factors Predicting CHKS Safety*

Fixed Effects	Coefficient	*SE*	*df*	T-Ratio	*p*
Intercept (CHKS Safety)	3.23	0.19	549	16.53	.000***
Black Student Safety					
Racial-Cultural Safety	0.68	0.04	549	16.47	.000***
Academic Safety	-0.10	0.05	549	-2.09	0.03*
Physical-Environmental Safety	0.09	0.04	549	2.32	0.02*
Perceptions of School Police	0.05	0.04	549	1.20	0.23
Parent Ed					
High School Diploma	0.07	0.13	549	0.58	0.56
Some College	0.18	0.12	549	1.45	0.15
College Graduate	0.05	0.11	549	0.42	0.67
Free-Reduced Lunch	-0.05	0.06	549	-0.77	0.44
School Diversity	0.006	0.006	58	0.93	0.36
School Size	0.00008	0.00005	58	1.32	0.19

Table 2.9. *HLM Results of Black Student Safety Factors Predicting CHKS Safety Continued...*

Random Effects	Variance	*df*
Between-School Variability (intercept)	0.11	549
Within-School Variability (residual)	0.83	

Racial-Cultural and Academic Safety Predict Caring Relationships. Racial-cultural

safety and academic safety were also significant predictors of perceptions of caring relationships.

The more racial-cultural and academic safety that Black youth felt, the more caring relationships

they perceived to have at school. The effect of racial-cultural safety was stronger and more

significant, (β=0.32, t (7.33), p<0.01) than the effect of academic safety (β=0.10, t (2.29),

p<0.05). Further, both factors proved to be stronger indicators of perceptions of caring

relationships than the single-item measure of school safety provided by CHKS (β=0.02, t (0.60),

p=0.55) (See Table 2.10).

Table 2.10. *HLM Results of Black Student Safety Factors Predicting Caring Relationships*

Fixed Effects	Coefficient	*SE*	*df*	T-Ratio	*p*
Intercept (Caring Relationships)	2.65	0.17	536	15.24	.000***
Black Student Safety					
Racial-Cultural Safety	0.32	0.04	536	7.33	.000***
Academic Safety	0.10	0.04	536	2.29	0.02*
Physical-Environmental Safety	0.02	0.04	536	0.70	0.49
Perceptions of School Police	0.05	0.04	536	1.38	0.17
CHKS Safety	0.02	0.04	536	0.60	0.55
Parent Ed					
High School Diploma	0.11	0.11	536	0.10	0.33
Some College	0.12	0.11	536	1.13	0.26
College Graduate	0.08	0.10	536	0.81	0.42
Free-Reduced Lunch	-0.04	0.06	536	-0.70	0.45
School Diversity	0.001	0.0005	58	0.22	0.83
School Size	0.00004	0.00005	58	0.77	0.45

Random Effects	Variance	*df*
Between-School Variability (intercept)	0.14	536
Within-School Variability (residual)	0.71	

Racial-Cultural and Academic Safety Predict Academic Motivation. Similarly**,** racial-cultural and academic safety were significantly associated with academic motivation. As racial-cultural safety increased, so did academic motivation (β=0.38, t (8.76), p<0.01). Similarly, as academic safety increased so did academic motivation (β=0.17, t (4.12), p<0.01). CHKS Safety also significantly predicted academic motivation (β=0.11, t (2.90), p<0.01), however, the effect was not as strong as that of the aforementioned factors (See Table 2.11).

Table 2.11 *HLM Results of Black Student Safety Factors Predicting Academic Motivation*

Fixed Effects	Coefficient	SE	df	T-Ratio	p
Intercept (Academic Motivation)	3.87	0.17	536	22.19	.000***
Black Student Safety					
Racial-Cultural Safety	0.38	0.04	536	8.76	.000***
Academic Safety	0.17	0.04	536	4.12	.000***
Physical-Environmental Safety	-0.06	0.03	536	-1.64	0.10
Perceptions of School Police	0.01	0.04	536	0.37	0.72
CHKS Safety	0.11	0.04	536	2.90	0.004*
Parent Ed					
High School Diploma	0.16	0.11	536	1.41	0.16
Some College	0.16	0.11	536	1.44	0.15
College Graduate	0.14	0.10	536	1.39	0.17
Free-Reduced Lunch	0.01	0.06	536	0.20	0.84
School Diversity	0.007	0.005	58	1.29	0.20
School Size	-0.00009	0.00005	58	-1.61	0.11
Random Effects	Variance	df			
Between-School Variability (intercept)	0.15	536			
Within-School Variability (residual)	0.71				

Academic and Physical-Environmental Safety Predict Goals and Aspirations.
Academic safety and physical-environmental safety were significantly, positively associated with Black youths' goals and aspirations. As academic safety increased so did Black youths' goals and aspirations (β=0.52, t (12.45), p<0.01). Similarly, greater feelings of physical-environmental safety were associated with stronger sense of support towards achieving future goals and

aspirations (β=0.39, t (11.36), p<0.01). CHKS safety was not significantly associated with goals and aspirations. Last school size was significantly negatively associated with goals and aspirations and the .05 level (β=-0.0001, t (-2.30), p=0.02).

Table 2.12. *HLM Results of Black Student Safety Factors Predicting Goals & Aspirations*

Fixed Effects	Coefficient	*SE*	*df*	T-Ratio	*p*
Intercept (Goals and Aspirations)	3.58	0.18	540	20.12	.000***
Black Student Safety					
Racial-Cultural Safety	0.04	0.04	540	1.00	0.33
Academic Safety	0.52	0.04	540	12.45	.000***
Physical-Environmental Safety	0.39	0.04	540	11.36	.000***
Perceptions of School Police	0.04	0.04	540	1.04	0.30
CHKS Safety	-0.06	0.04	540	-1.71	0.09
Parent Ed					
High School Diploma	-0.05	0.11	540	-0.47	0.64
Some College	-0.06	0.11	540	-0.62	0.54
College Graduate	-0.03	0.10	540	-0.31	0.76
Free-Reduced Lunch	-0.018	0.05	540	-0.33	0.74
School Diversity	0.006	0.005	58	1.06	0.29
School Size	-0.0001	0.00006	58	-2.30	0.02*
Random Effects	Variance	*df*			
Between-School Variability (intercept)	0.20	540			
Within-School Variability (residual)	0.70				

Discussion

Building from Edwards (2021), the current study sought to provide evidence of school safety as a multidimensional construct, that for Black youth, is inextricably tied to their perceptions and lived experiences as racialized beings (Bonilla-Silva, 2018). After drawing items from 3 separate modules of the California Healthy Kids Survey, results of a confirmatory factor analysis ascertained a multifactorial measurement structure for the construct Black Student Safety (BSS). BSS was composed of four-factors—racial-cultural safety, academic safety, physical-environmental safety, and perceptions of school police. Each factor was composed of 3-

4 items that spoke to racialized experiences of Black youths in U.S. public education, thereby highlighting relevant threats to safety that are typically obscured and/or absent in other instruments. In the following sections, I describe findings for Black Student Safety as an aggregate construct. I then explain its factors and corresponding items and draw on extant literature to posit novel inferences about how Black youths may conceptualize school safety.

Black Student Safety as an Aggregate Construct

Results of the HLM analyses showed that as an aggregate construct Black Student Safety strongly predicted Black youths' feelings of school safety as assessed by the single-item measure, "*I feel safe in my school.*" For Black youth, higher scores of BSS were associated with feeling safer in school. Further, when comparing the predictive power of BSS to the single-item measure of school safety, results showed that BSS was a stronger predictor of caring relationships and academic motivation than the single-item measure. These results are important because they provide insight into the types of issues that Black youth may be referencing when they report feeling unsafe at school. This study provides evidence to suggest that Black youths' safety is bound to their racial-cultural and academic experiences, the physical school environment, and their perceptions of school policing practices.

Results of the HLM analysis also exposed a counterintuitive finding, as CHKS safety was negatively associated with Black youths' goals and aspirations. The safer that students reported feeling (according to CHKS safety), the less supported they felt in planning and executing their college and career goals. A challenging result to decipher, there is no clear explanation for why this association may have been negative. As such, the finding underscores the problem with having a single item measure of safety. Such a limited measure does not offer sufficient

information from which to draw robust inferences that can help point to *why* youth may feel how they do.

Unpacking Findings for Each Factor of Black Student Safety

Examining loadings for each factor of Black Student Safety, highlight academic and racial-cultural safety as the strongest factors. Further, results of HLM analyses confirm that they are also the factors with the most predictive power. Racial-cultural safety and academic safety are strong predictors of perceptions of caring relationships, youth goals and aspirations, as well as academic motivation, and feelings of safety. Racial-cultural safety had the stronger effect on every outcome—a noteworthy finding because the items of this factor did not explicitly prompt participants to consider their race or culture. Instead, the items that constructed the factor drew from theory and previous research to attempt to capture the ways that race may play a role in how Black youth experience school. For example, items in this factor assessed the extent to which Black youth felt that they were treated equitable and their perceptions of about how their families were received at school. The following sections describe the items of each construct in more detail and how they work together to capture the latent factor and predicted outcomes for Black youth.

Racial-Cultural Safety and Black Youths' Perceptions of Equity and Care

Four items loaded onto the factor racial-cultural safety, *"I feel happy to be at this school"*, *"The teachers at this school treat students fairly"*, *"Parents feel welcome to participate at this school"*, and *"School staff take parent concerns seriously."* In the CHKS, the aforementioned items were part of larger measures of school connectedness and parental

involvement. However, as indicators of racial-cultural safety, in this study the items seemingly spoke to Black youths' perceptions of racial equity and care in school.

Edwards (2021) defines racial-cultural safety as "valuing and welcoming students' diverse ways of being, knowing, communicating, and participating in school" and posits that Black students feel racially and culturally safe when, "they can see themselves in their education, and who they are and where they are from informs and enriches their learning" (p. 262). This definition aligns with the items that came forward for racial-cultural safety—particularly those that address parent engagement in school, as parents are a direct representation of where youth come from, and they participate in school as extensions of their children.

Numerous qualitative studies have documented the ways that institutional racism in K-12 schools disempowers and excludes Black parents. Subtle attitudes, negative perceptions, deficit thinking, and school and classroom level practices and policies push Black parents out of school, meanwhile demonizing them as absent and disinterested in their children's education (Posey-Maddox, 2017; McCarthy Foubert, 2020; Powell & Coles, 2020). Findings from this study seem to suggest that Black high school youth may have awareness of and be actively threatened by schooling environments that they perceive as inequitable—more specifically, schools that they feel lack fairness for all students and do not value and welcome their parents. Conversely, Black youth experience racial-cultural safety when they are happy at school, when they perceive teachers treat all youth fairly, and when they feel that their parents are invited and appreciated members of the community.

Racial-Cultural Safety Predicting Student Outcomes. Results from HLM analyses showed that racial-cultural safety significantly predicted CHKS safety. The more racial-cultural safety that Black youth felt, the safer they reported feeling at school. Greater racial-cultural

safety was also associated with positive perceptions of school-based relationships with adults. This is an important finding for several reasons. First, studies show that students who have meaningful relationships with teachers feel safer and more connected to school (Furrer et al., 2010). For Black students, a critical determinant of strong student–teacher relationships is perceiving their teachers as caring (Edwards, 2019; Howard, 2002; Wandix-White, 2020). In Howard (2002) and Edwards (2019), Black students described caring teachers as those who showed interest in their personal lives and invested time outside of class to engage with them and their families. Conversely, they described uncaring teachers as those with deficit notions and indifferent attitudes.

Findings from both qualitative studies corroborate results from the current study, and highlight that creating safe, welcoming, and equitable environments for Black youth requires that their families be similarly engaged. This finding is also important because it highlights a critical aspect of school safety for Black youth that the single-item measure of school safety in CHKS (CHKS safety) did not. HLM results did not show a significant association between CHKS safety and perceptions of caring relationships for Black youth. Thus, Black Student Safety— specifically the racial-cultural safety factor, provides insight into relevant aspects of Black youths' wellbeing above and beyond the typical measure of safety.

Racial-cultural safety also predicted academic motivation above and beyond the single-item measure of safety. Black youth with greater racial-cultural safety were also more academically motivated. This finding underscores the importance and impact of working alongside families to promote academic success for Black youth. Conversely, while the single-item measure of safety was also predictive of academic motivation (to a lesser extent), it did not provide insight into the aspects of safety that impact Black youths' motivation.

Academic Safety and Black Youths' Perceptions of Education for Real Life

Academic safety "invites students to learn by empowering their stories and voices…" (Edwards, 2021, p. 264). Further, Black students feel academically safe when "they are unafraid to make mistakes in pursuit of new skills and knowledge, and when they feel affirmed that they can learn and achieve success as themselves" (Edwards, 2021, p. 264). In this study, the four items that loaded onto academic safety embody important aspects of the definition above. The items: *"My teachers work hard to help me with my schoolwork when I need it"*, *"Teachers show how classroom lessons are helpful in real life"*, *"My teachers give me useful feedback on my work"*, and *"This school promotes academic success for all students"* all seemingly speak to the importance of empowering and affirming Black students via productive instructional practice and relevant academic content.

Instructional practices greatly influence how youth perceive and respond to their classroom environments. Like all students, Black youth are vulnerable to the emotional and psychological distress provoked by poor instructional practices. However, Black students are uniquely vulnerable to similar (and worse) forms of distress via racial microaggressions in the classroom (Jernigan & Daniel, 2011). School curricula is a common yet frequently overlooked threat to the safety of Black students. Saturated with ahistorical content and devoid of meaningful representations of Black people, school curriculum often perpetuates racial microaggressions against Black students (Brown & Brown, 2010). Further, deficit paradigms that maintain low academic expectations of Black youth restrict them from educational opportunities offered to students of other racial-ethnic backgrounds (Ford, 2014). Having the developmental capacity to perceive covert forms of racism, Black adolescents are often astutely aware of the threats posed by low quality instruction and low expectations (Allen, 2017; Brown, 2017;

Roberts et al., 2008; Tatum, 1997). As such, it seems reasonable that the items that came forward as indicators of academic safety highlight relevant lessons, useful teacher feedback, and the extent to which Black youth feel that teachers respond to and support the achievement of *all* students.

   Academic Safety Predicting Student Outcomes. Academic safety was positively associated with Black youths' academic motivation, perceptions of caring relationships, and goals and aspirations. Black youth who felt more academically safe felt more motivated to achieve academically and perceived stronger relationships with adults at school. They also felt more supported in planning and executing their college and career goals. Together these findings provide evidence that ensuring the safety of Black youth requires thoughtful consideration of their academic experiences in school. Given the biases that Black youth confront in schools and disparities in their achievement outcomes, discerning and addressing the academic experiences of Black youth is impossible without critical discourse of race and institutional racism in school.

   Such insight is not and cannot be provided by traditional measures of school safety. In fact, results from the HLM analyses showed that the single-item measure of school safety (CHKS safety) was not a significant predictor of goals and aspirations or caring relationships for Black youth. CHKS safety did significantly predict academic motivation, however, academic safety was a stronger predictor for academic motivation thereby further illustrating that a Black Student Safety measure offers better understanding of Black youths' safety needs than traditional measures.

Physical-Environmental Safety and Black Youths' Morale

   Black students feel physically safe when they are not psychologically, emotionally, or physiologically burdened by the threat of bodily harm, and feel confident that they can rely on

school to help meet their essential needs (Edwards, 2021). Results of the confirmatory factor analysis highlighted 3 items associated with the factor physical-environmental safety. Together, the items focused solely on the conditions of the facilities at school. The items included, *"The schoolyard and buildings are clean and in good condition", The school grounds are kept clean",* and *"The school has clean, drinkable water."*

This finding was particularly novel because traditional measures of physical safety tend to primarily focus on bodily harm caused by violence and victimization. As such, the maintenance of school facilities is often overlooked as a relevant influence on students' sense of physical safety at school. In this study, however, the conditions of the school environment emerged as a relevant consideration for the safety of Black youth. Moreover, as a factor of Black Student Safety, physical-environmental safety was positively associated with Black youths' goals and aspirations. Stronger feelings of physical-environmental safety were associated with a stronger sense of support towards achieving future college and career goals.

Findings for this study are aligned with extant literature on the impact of school facilities on student outcomes. Better school conditions are associated with more positive student behavior and academic achievement, meanwhile low-quality school conditions are associated with increased absences, suspensions, and drop-out rates (Boese & Shaw, 2005; Branham, 2004; O'Malley et al., 2008). Coupled with findings from previous research, findings from this study suggest the possibility that school building conditions impact feelings of safety via its influence on morale. Teacher retention research shows that teachers who work in schools with satisfactory conditions express more positive attitudes about their classrooms and have a higher likelihood of staying in the classroom than teachers who work in schools with low quality facilities (Buckley, Schneider, & Shang, 2005; Earthman & Lemasters, 2009). Thus, a clean and well-maintained

school could similarly serve as a motivating agent for Black students. Black youth are overrepresented in high poverty schools where capital investments for facilities maintenance and operations are the lowest, meanwhile the burdens of facility needs are the highest (Filardo, 2021; Filardo, 2016). A clean and well-maintained school could implicitly communicate investment in student wellbeing and education, thereby boosting morale and pushing Black youth to feel similarly invested in their education and future goals.

Perceptions of School Police and Future Directions for Research

In this study, perceptions of school police also emerged as a critical factor associated with Black youths' safety in school. Items for this factor included, *"I feel safer with the officer at school," "The officer has a good relationship with students," "The officer treats all students with respect no matter their race, ethnicity, or nationality," and "The officer does a good job of stopping violence at school."* Studies show that Black youth are disproportionately targeted and discriminated against by school police officers (Fisher et al., 2020; Morris, 2016). Further, Black youth perceive that school police often escalate issues at school rather than help resolve them (Edwards et al., 2020; Edwards et al., 2022). Ninety-eight percent of the sample for this study attended a school with a police officer. Given the well-documented threats presented to Black youth via policing as a disciplinary practice in schools, the emergence of this factor was anticipated. Surprisingly, however, perceptions of school police did not significantly predict any outcomes examined in this study.

Perceptions of School Police Predicting Student Outcomes. Perceptions of school police was not associated with CHKS safety, nor was it associated with Black youths' academic motivation, goals and aspirations, or perceptions of caring relationships at school. Such findings are not to suggest that school police is not relevant to the outcomes of Black youth. Instead, it

may be that perceptions of school police are predictive of other important outcomes not examined in this study. For example, school police officers often respond to issues beyond their level of expertise, including issues pertaining to student mental health and counseling needs (Edwards, 2020). As such, it seems relevant for future studies to examine how Black youths' perceptions of police may impact outcomes like depressive symptoms, anxiety, and stress. Further, a limitation of this study was an inability to explore gender differences due to missing data. Study 1 highlighted stark differences between male and female students' feelings of safety. Examining interactions between gender and perceptions of school police could offer insight into varying outcomes for students of different genders.

Conclusion

Study 2 of this dissertation offers novel contributions to the field of psychology and education, and the school climate and safety literature. By providing empirical evidence of multiple factors associated with Black youths' feelings of school safety, this study builds upon research that problematizes unidimensional, colorblind approaches to school safety that render the needs of Black youth invisible (Edwards, 2021; Heidelburg et al., 2021). It is important to note that this study does not suggest that Black Student Safety is the best and ultimate measure for assessing Black youths' feelings of safety. Instead, this study is meant to push scholars and educators to think critically about the multitude of ways that institutional racism threatens the safety of Black youth in schools in hopes of inspiring new frameworks, instruments, and interventions that comprehensively speak to their reality. A critical next step in ensuring the development of more effective instruments for assessing Black youth safety is conducting qualitative research. More qualitative research is needed to develop a deeper understanding of

how Black youth conceptualize and discuss safety. Such research can also help to hone the factors of safety offered in this study as well as introduce new, relevant factors.

GENERAL DISCUSSION, IMPLICATIONS, & FUTURE DIRECTIONS

Examining outcomes for Black youth underscores the continual failure of the U.S public education system to serve them effectively and equitably. Across all levels of schooling, Black youth are disproportionately retained, suspended, and expelled from school, meanwhile pushed into the carceral and juvenile justice system (NCES, 2019a; Skiba et al., 2014, Gregory et al., 2010). They have the lowest reading attainment of any racial-ethnic group (NAEP, 2019), and one of lowest high school graduation rates in the nation (NCES, 2019b). Further, suicide rates for Black youth have doubled in the last decade and are growing faster than that of any other group (Watson-Coleman, 2019). All the while, Black youth report feeling less safe at school than other peers.

In the face of such outcomes, it is imperative that school climate and safety scholars develop a more critical, racial lens for assessing the threats to safety posed against Black youth in schools. Across time, frameworks for school climate and safety and the instruments that they have informed have left gaps in our understanding of how Black youth experience school. These frameworks evade race and ignore how institutional racism shapes the organization and dynamics of schools to threaten the safety and outcomes of Black students. As scholars we must be keen to problematizing colorblind approaches to school safety that wrongfully examine schools as "racially-neutral" spaces.

This dissertation had two overarching aims. The first aim was to use a traditional colorblind measure of school safety to highlight racial-ethnic disparities among high school

youths. The second aim was to show how applying a racial lens to assessing Black youths' feelings of school safety—even with imperfect measures—can provide novel and valuable insight into relevant factors that influence the safety of Black youth in school—factors that would otherwise go unnoticed.

Contributions

The aims of this dissertation were fulfilled, and together findings from both studies provide several important contributions. First, findings emphasize that a single-item measure of safety is not effective in identifying threats to Black youths' safety at school, nor conversely, identifying factors to help strengthen their sense of safety. While a single-item measure of safety can be used to identify racial-ethnic disparities, it is not comprehensive enough to help explain *why* disparities both within and between groups may exist. For example, findings from Study 1 corroborate existing research on racial disparities between Black and White students' feelings of safety (Lacoe, 2015). However, a major finding of Study 1 highlighted stark gender differences as well. The difference between male and female students was among the most pronounced for Black youth. A colorblind, single-item measure of safety is not able to capture the nuances related to Black youths' experiences with racialized gender bias at school. Further, without employing a racial lens to examine the experiences of youth in school, the need for such a measure is imperceptible. Thus, a more effective instrument for assessing Black youths' safety requires multiple items that speak to the intersection of race and gender (Crenshaw, 1991) and the way it relates to how Black youth navigate school and experience safety. Limitations caused by missing data did not allow for deeper analysis of intersectionality in Study 2. However, a

stronger understanding of factors that threaten and promote the safety of Black youth across different genders would offer several benefits to ensuring equity and safety in school.

Another significant contribution of this dissertation is evidence to support a multidimensional conceptualization of safety for Black students. Findings suggest that in addition to having a measure of safety with multiple items, the items need to speak to safety across several domains. This dissertation provides empirical evidence to support scholarship that advocates for more complex measures and frameworks for assessing the experiences of Black youth in school (Edwards, 2021, Heidelburg, 2022, Neely, 2022). Study 2 uncovered racial-cultural safety, academic safety, physical-environmental safety, and perceptions of school police as relevant factors strongly and positively associated with Black youths' feelings of school safety. Further, most of the factors predicted important outcomes for Black youth above the traditional, single-item measure. This is important because it shows that for Black youth safety is related to issues like what they learn in class, how they receive feedback, the extent to which their families are welcomed into the school community, the orderliness of school facilities, and the extent to which they feel respected by disciplinary figures at school. If we harken back to the introduction of this dissertation, these are all issues that speak directly to the testimonies of Black adolescents at the Los Angeles Unified School District schoolboard meeting. Further, Black youths' day-to-day experiences, interpersonal interactions, and overall perceptions of school can provide useful insight on their experiences with and the impact of institutional racism at school. Such insight is useful in informing future instruments for examining the effect of institutional racism on Black youths' feelings of school safety more explicitly.

Limitations

A limitation of this dissertation is that the items used for analyses came from the California Healthy Kids Survey, a robust but colorblind instrument that was not designed to capture anything distinctively relevant to Black youth. For example, the items used to identify factors of Black Student Safety were informed by research on inequities and disparities related to Black youths' experiences in school, however, they did not explicitly prompt respondents to consider their race. As such, items and factors inferred Black youths' experiences as a function of their racial identity, but there was no definitive way to ensure that youth were responding to items with race in mind. Such limitations thus present important empirical questions for future research. Testing the extent to which the racial-cultural safety, academic safety, physical-environment safety, and perceptions of school police hold up as factors with a different sample of Black youth could provide support for the higher-order model of Black Student Safety. Similarly, drawing comparisons between Black youth and youth of other race-ethnicities could highlight factors that perhaps are equally important to other groups and those that are distinctively relevant to Black youth.

Further, while Study 1 modeled school size and racial-ethnic diversity as relevant school-level covariates predicting feelings of school safety, this dissertation did not thoroughly explore the impact of the school and neighborhood context. Even so, I recognize the profound importance of doing so. Using data from this dissertation, future studies will focus on select school districts to allow for more in-depth analysis of the effect of contextual factors like neighborhood geography, economics, and crime on school safety and academic outcomes. Given findings from Study 2 that highlight the importance of physical-environment safety, deeper exploration of context factors is particularly important for Black youth.

Implications

Despite using imperfect items, when intentionally working to capture the racialized experiences of Black youth, relevant factors emerged. The factors that emerged in this study not only predicted Black youths' feelings of safety, but they were also positively associated with Black youths' academic motivation, perceptions of caring relationships at school, and sense of support and direction towards future goals and aspirations. As such, the findings of this dissertation also offer important implications for practice; the most evident being that comprehensive, multidimensional assessments of school safety have the potential to offer school leaders more robust data with which to inform school-based interventions and policies.

For example, in February 2020-2021, the Los Angeles Unified School District approved the Black Student Achievement Plan (BSAP) which allocated funds to addressing longstanding disparities in educational outcomes between Black students and their non-Black peers via series of programs and initiatives (Los Angeles Unified School District, 2021). One program is the Leadership and Equity Academy for Principals (LEAP), a two-year program to support principals. A primary objective of LEAP is to support school leaders in creating a healthy school culture and climate for Black youth. If the LEAP program provided school leaders with a comprehensive, multidimensional measure of Black Student Safety it could serve as a useful tool for identifying areas of strength and growth at their school. If results showed, for example, that Black youths' academic safety was the most compromised dimension of safety at the school because Black youth feel that teachers do not teach relevant lessons, then the principal could prioritize developing interventions targeted at improving curriculum. Similarly, if the assessment highlighted gaps in Black youths' racial-cultural safety driven mostly by youths' perceptions of how staff and faculty interact with parents, then the principal would know to target practices for

family communication and engagement. A single-item measure of safety is incapable of providing school leaders with such guidance, and thus would require them to invest time and resources to seeking additional information elsewhere to inform decision making.

Future Directions

My biggest takeaway from this dissertation is that the voices of Black youths need to be amplified to help drive school safety research and instrument development. As such, building from this dissertation, I plan to continue working to unpack the meaning of Black Student Safety. I plan to work alongside Black adolescents to develop a new, original measure of Black Student Safety. Using a mixed methods approach my hope is to develop an instrument that encompasses the 6 dimensions of school safety introduced in Edwards (2021). To do this, I will conduct interviews with Black high school youth to gain a thorough understanding of their conceptualization of school safety, and factors that threaten and bolster their sense of safety. I will use their insight to inform items and consult with them throughout the process of instrument development to ensure that items are relevant and accurately capturing Black youths' perceptions and experiences. Centering the voices of Black youth in research is critical because as stated by LAUSD student, Candace Green, "change is when you begin to listen to Black students." Only then can meaningful transformation occur, and scholars work toward developing measures that can help schools truly become a place for Black youth to "laugh, love, study, and play."

Last, amidst nationwide grief sparked by the tragic murder of 19 children and 2 teachers via the school shooting at Robb Elementary School in Uvalde, Texas, school safety is a trending topic. While issues of physical safety are rightfully at the forefront of our conscious, so too are questions about how to better raise and support young people to avoid senseless acts of killing.

The gunman has been identified as a local high school student, which the media describes as severely disturbed, lonely, and having significant social, socioeconomic, and academic needs (Klemko, Foster-Frau, & Boburg, 2022). While there is no explaining or justifying such a heinous crime, the tragedy highlights the importance of fostering and maintaining school environments where all youth feel valued and protected, as well as some of the devasting consequences associated with an inability to do so. This dissertation does not focus on threats to safety produced by crime and gun violence, however, that is not to devalue the paramount importance of protecting students from such occurrences. Instead, this dissertation offers a more expansive conceptualization of safety with hopes of inspiring more preventative versus reactive approaches to mitigating threats to school safety across multiple dimensions. Similarly, my while research focuses intently on Black youth, it has relevant implications for how we think about and address issues of school safety for youth of other subgroup populations as well.

APPENDIX A

Decision Tree for Constructing the Analytic Sample in Study 1

**California Healthy Kids Survey
Secondary Core Module (Grade 6-13)**

2017-2018 Administration
n=650,858

2018-2019 Administration
n=511,430

N=1,162,288 total observations

I filtered the dataset to focus only on respondents
from public high schools

N=699,792 observations

Data were not at the student level. Given an inability to
discern duplicate cases between 9th and 11th grade
and a particular interest in the high school transition,
I filtered further to focus only on 9th grade respondents

N=337,532 participants

For consistency, I filtered out alternative schools, continuation schools, military
schools, schools listed in the dataset that were no longer operating under CDE,
and schools erroneously entered more than once in the dataset

Analytic Sample= 337,484 students from 851 public high schools

Decision Tree for Constructing the Analytic Sample in Study 2

2017-2018 & 2018-2019
California Healthy Kids Survey
Secondary Core Module (Grade 9)

N=337,532 participants

I filtered the dataset to focus on respondents that participated in all three modules: the core, school climate, and community health modules

N=13,905

Given a particular interest in Black youth, I narrowed the dataset further by focusing only on respondents who identified as Black/African American

Analytic Sample =
877 Black 9th graders from 65 public high schools

APPENDIX C

Results of the Model Building Process in Study 1

Hierarchical Linear Modeling (HLM) Results of the Control Model (Model 2)

Fixed Effects	Coefficient	*SE*	T-Ratio	*p*
Intercept	3.54	0.012	302.31	.000***
Student-Level Variables				
Sex (male as reference)				
Female	-0.03	0.004	-6.46	.000***
FRL (yes as reference)				
No	-0.02	0.005	-4.09	.000***
ParentEd (did not finish high school as reference)				
High School Diploma	0.06	0.007	7.59	.000***
Some College	0.06	0.008	7.12	.000***
College Graduate	0.13	0.007	18.82	.000***

Random Effects	Variance	*df*	T-Ratio	*p*
Between-School Variability (intercept)	0.06	221,076	302.31	.000***
Within-School Variability (residual)	0.990			
Proportion of variance explained improvement of Model 2 over Model 1 (between-student)	1.3%			

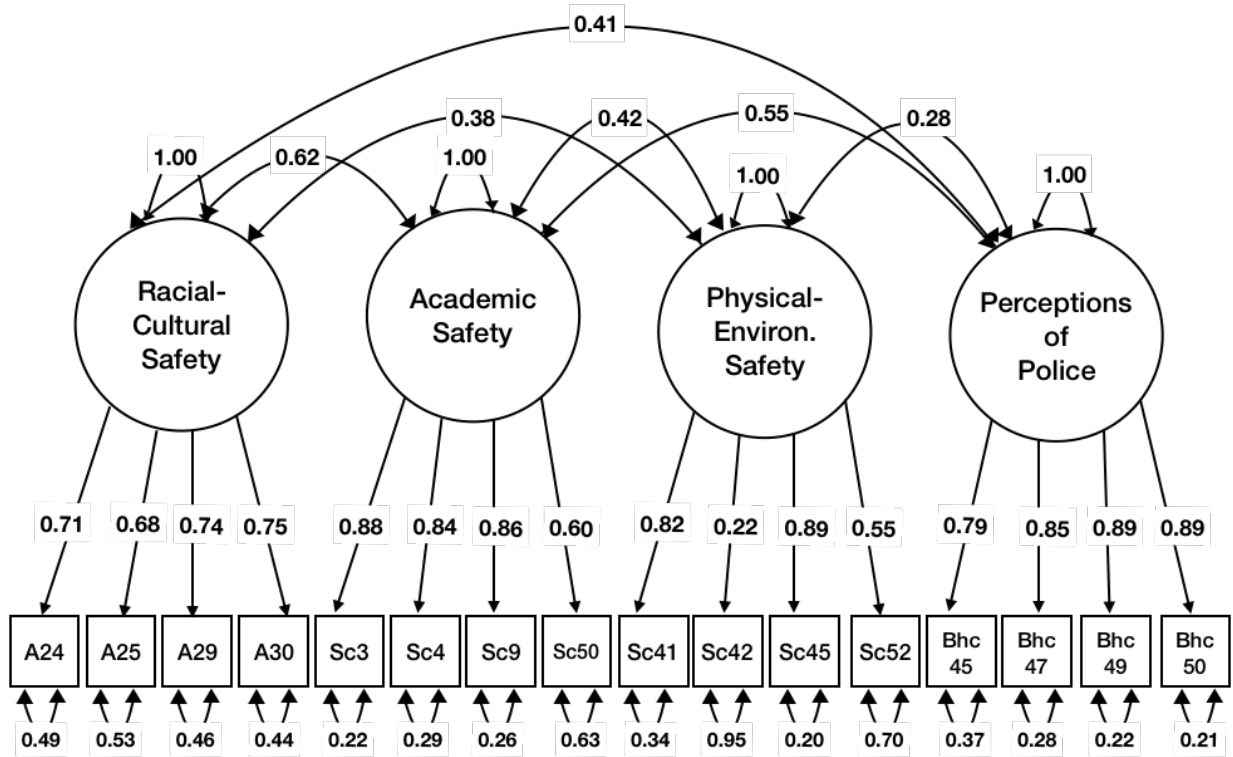*Hierarchical Linear Modeling (HLM) Results of the Contextual Model (Model 3)*

Fixed Effects	Coefficient	SE	T-Ratio	p
Intercept	3.54	0.032	111.18	.000***
Student-Level Variables				
Sex (male as reference)				
Female	-0.03	0.004	-6.21	.000***
FRL (yes as reference)				
No	-0.02	0.005	-4.16	.000***
ParentEd (did not finish high school as reference)				
High School Diploma	0.06	0.008	7.64	.000***
Some College	0.06	0.008	7.18	.000***
College Graduate	0.13	0.007	18.78	.000***
School-Level Variables				
Diversity	0.07	0.05	1.41	0.16
Size	-0.000026	0.000011	-2.18	.03**

Random Effects	Variance	df	T-Ratio	p
Between-School Variability (intercept)	0.06	217,807	111.17	.000***
Within-School Variability (residual)	0.992			
Proportion of variance explained improvement of Model 3 over Model 1 (between-student)	8.32%			

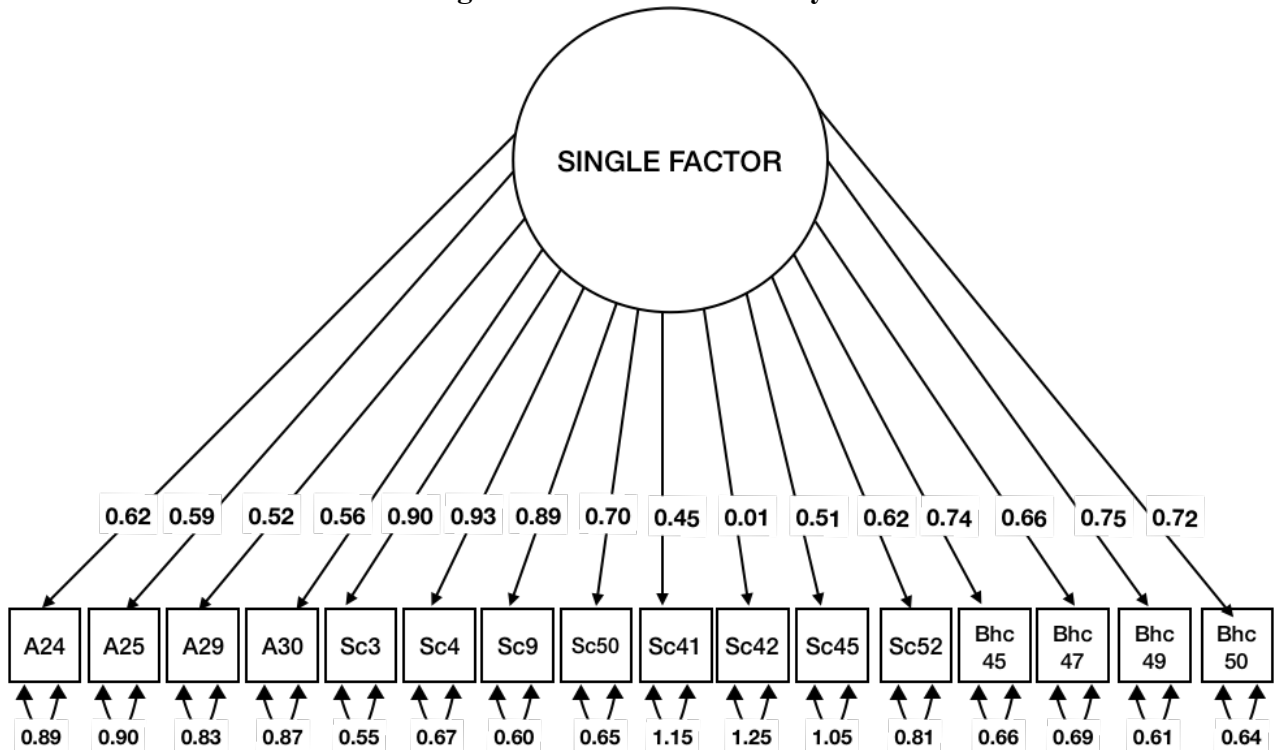*HLM Results of the Conditional Model without Interactions (Model 4)*

Fixed Effects	Coefficient	SE	T-Ratio	p
Intercept	3.54	0.033	107.52	.000***
Student-Level Variables				
Sex (male as reference)				
Female	0.0004	0.004	0.11	0.908
FRL (yes as reference)				
No	-0.002	0.004	0.47	0.639
ParentEd (did not finish high school as a reference)				
High School Diploma	-0.01	0.006	-1.65	0.099
Some College	-0.01	0.007	-1.48	0.127 ***
College Graduate	-0.027	0.006	-4.57	.000***
School-Level Variables				
Diversity	0.18	0.05	3.37	0.001*
Size	-0.000024	0.00001	-1.93	.05*
Social-Emotional & Physical Experiences				
Verbal Harassment	-0.04	0.003	-15.43	.000***
Racial Harassment	-0.03	0.003	-12.85	.000***
Violent Victimization	-0.23	0.006	-42.89	.000***
Academic Motivation	0.09	0.002	37.54	.000***
Academic Achievement	-0.03	0.002	-14.19	.000***
School Connectedness	0.64	0.003	37.54	.000***

Random Effects	Variance	df	T-Ratio	p
Between-School Variability (intercept)	0.07	197,490	107.53	.000***
Within-School Variability (residual)	0.59			
Proportion of variance explained improvement of Model 3 over Model 1 (between-student)	41.02%			

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APPENDIX D

Four-Factor Model for Study 2

0.41

0.38   0.42   0.55   0.28

1.00   0.62   1.00   1.00   1.00

Racial-Cultural Safety   **Academic Safety**   **Physical-Environ. Safety**   **Perceptions of Police**

0.71   0.68   0.74   0.75   0.88   0.84   0.86   0.60   0.82   0.22   0.89   0.55   0.79   0.85   0.89   0.89

| A24 | A25 | A29 | A30 | Sc3 | Sc4 | Sc9 | Sc50 | Sc41 | Sc42 | Sc45 | Sc52 | Bhc 45 | Bhc 47 | Bhc 49 | Bhc 50 |

0.49   0.53   0.46   0.44   0.22   0.29   0.26   0.63   0.34   0.95   0.20   0.70   0.37   0.28   0.22   0.21

Single Factor Model for Study 2

SINGLE FACTOR

0.62   0.59   0.52   0.56   0.90   0.93   0.89   0.70   0.45   0.01   0.51   0.62   0.74   0.66   0.75   0.72

| A24 | A25 | A29 | A30 | Sc3 | Sc4 | Sc9 | Sc50 | Sc41 | Sc42 | Sc45 | Sc52 | Bhc 45 | Bhc 47 | Bhc 49 | Bhc 50 |

0.89   0.90   0.83   0.87   0.55   0.67   0.60   0.65   1.15   1.25   1.05   0.81   0.66   0.69   0.61   0.64

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