

# College Preparatory Schools and Critical Consciousness

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## Research Article

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# Abstract

Critical Consciousness (CC) is a construct that has been linked to political motivation and behaviors intended to circumvent oppression. Much of the work to date has examined CC for students of marginalized backgrounds and has paid little attention to how CC develops for privileged students. Additionally, while much of the CC literature has examined characteristics of schools that are linked with CC (i.e., school/classroom climate), no studies have inquired into the nature of the larger school setting as impacting CC-development. This study proposes that one school setting that may be related to both privilege (i.e., race and SES) and classroom climate are College Preparatory High Schools. Therefore, the current study contributes to the literature by examining the structural relations between privilege, College Preparatory High School enrollment, classroom climate, and two dimensions of CC: Critical Reflection (CR) and Critical Motivation (CM). Results indicate that controlling for race, SES is predictive of College Preparatory High School enrollment. Furthermore, College Preparatory High School enrollment is directly related to CM but not CR, and is indirectly related to both CR and CM through classroom climate. The implications of these findings are discussed.

# Introduction

Increasing rates of inequality in the United States have created many barriers for low-income and marginalized racial/ethnic minority populations to achieve upward mobility (Chetty et al., 2017). Inequality is framed within a larger landscape of oppressive systems that produce, and reproduce, inequality in societies. Oppressive systems are those that systematically prevent individuals belonging to certain racial, class, gender, ethnic, and sexual groups from acquiring desirable statuses in society (Combahee River Collective, 2014). Furthermore, these systems are embedded into institutions of mobility such as employment, housing, and education (Feagin, 2006).

Research devoted to understanding how students navigate and resist these inequalities and oppressions has gained attention in recent years. One vein of this research examines the impact of Critical Consciousness development—a concept originally developed by Paulo Freire (1973, 2000), and operationalized for scientific inquiry (Watts, Diemer, & Voight, 2011). Critical Consciousness (CC) refers to an individual's awareness of inequitable and oppressive forces that reinforces a sense of efficacy and engagement in behaviors used to circumvent oppression. As this definition illustrates, there are three dimensions of CC: 1. Critical Reflection, which involves the actor engaging in critical analysis of inequality, 2. Critical Motivation, involving the actor's perceived capacity to affect change; and 3. Critical Action, or engagement in behaviors thought to result in change (Watts, Diemer, & Voight, 2011). CC has often been regarded as a tool for healthy development (Diemer et al., 2016) and empowerment for marginalized people (Christens, Winn, & Duke, 2016).

The aim of the current paper is to extend the CC literature to examine the interacting role of college preparatory school enrollment and privilege on CC development. CC research has predominantly focused on CC-development in racial/ethnic minority groups, leaving little understood about how CC develops for

privileged students. Disproportionately so, more white and upper-class students are placed into advanced courses than are black and lower-class students, and enrollment in college prep schools depict a similar story. These placements and school enrollments create vastly different educational experiences based on content/quality of instruction, classroom climate, teacher expectations, and student supports (Farmer-Hamilton, 2011; Koh & Kenway, 2016; Perna, 2005). While the school effects and college preparatory school literatures intersect at several junctures, the current study focuses only on school climate as the bridge between these two bodies of knowledge. Therefore, the current study tests a structural mediation model to examine the structural relationship between privilege (i.e., race and class), college prep enrollment, school climate, and CC. Testing these variables in this way will allow researchers to understand if, and how, privilege relates to CC-development. A review of the literature, findings, and implications are discussed in the sections following.

## Literature Review

### Critical Consciousness

Aimed at opposing the inculcation of class structure in schools, theories of Critical Pedagogy came into the fore devoted to promoting democratic values in the classroom. These values take form through student-centered, problem-based, and dialogue-focused classrooms. By focusing the classroom in these ways, students are taught to use their personal experiences to define and resolve social problems (i.e., Praxis). These classroom experiences of critical consciousness raising are imperative for stirring a sense of agency to go out into the world and enact change (Freire, 1970). However, reimagining change does by itself bring about change. Though critical consciousness raising in the classroom is imperative for setting the foundation for engaging in behavioral change, engaging in political activity (such as protest) is of the utmost importance (McAdam et al., 2001; Payne, 1995). These actions of political action create new critical social identities that foster further change (Holland et al., 1998).

Contemporary scientific applications of Critical Pedagogy theories have primarily focused on the work of Paulo Freire (Freire, 1970, 1973, 1998). This area of research has extended his work on Critical Consciousness (CC) to consist of three components: Critical Reflection (i.e., recognition and understanding of inequities and oppressive systems), Critical Motivation (i.e., perceptions of one's capacity to affect change), and Critical Reflection (i.e., engagement in behaviors intended to create change and reduce inequality) (Watts, Diemer, &Voight, 2011). Although CC is distinct from these constructs, studies of sociopolitical development, empowerment, civic engagement, and transformative potential (Christens et al. 2016; Diemer, Rapa et al. 2016; Jemal 2017; Watts et al. 2011; Watts and Flanagan 2007) have been reviewed alongside studies of CC (Heberle, Rapa, & Farago, 2020). Finally, Freire's work was originally conducted with adults, most scientific scholarship examines CC in children and adolescents, which is the focus of the current study.

Freire's contributions, and the scientific applications following his contributions, builds upon decades of work conducted by critical theorists and neo-Marxist education scholars. For example,

Michael Apple argues in *Ideology and Curriculum* that Capitalism is reproduced in schools through the formal school curriculum by way of top-down definitions of knowledge, and selective cultural traditions (Apple, 1979). Henry Giroux is also a prolific figure in the neo-Marxist study of schooling. Giroux advocates for similar objectives for schooling as Freire, however his notion of resistance stemming from participation in critical pedagogy assumes that knowledge of inequality translates to behavior directly (Giroux, 2001). While this seems reasonable to assume, recent scientific work suggests that political attitudes and behaviors may not follow those trajectories exactly (Christens et al., 2011; Diemer et al., 2016).

Scholars of culturally responsive pedagogy have also been foundational for educational theory and scholarship devoted to understanding how students navigate and resist oppression. For example, Geneva Gay emphasizes the importance for students to connect their lived experiences to the things they learn in the classroom, placing an emphasis on experiences with marginalization and discrimination (Gay, 1994, 2010). Gloria Ladson-Billings is also a prominent figure for scholarship on culturally responsive pedagogy. She advocates for an increased responsibility on teachers to support the development of critical consciousness for youth in the classroom (Ladson-Billings, 2009). Finally, scholars of sociopolitical development in adolescence, such as Roderick Watts, have been foundational for contemporary scholarship of these concepts and theories described (e.g., Watts & Abdul-Adil, 1998; Watts & Flanagan, 2007; Watts, Griffith, & Abdul-Adil, 1999; Watts, Williams, & Jagers, 2003).

CC has been linked to several antecedents and outcomes occurring both inside and outside of the school setting. For example, non-school related links include parent socialization (Diemer & Li, 2011), community engagement (Fegley, Angelique, & Cunningham, 2006; Fullam, 2017), occupational outcomes (Diemer & Blustein, 2006; Diemer, 2009; Diemer et al., 2010; Nicholas, Eastman-Mueller, & Barbich, 2019; Olle & Fouad, 2015; Rapa, Diemer, & Bañales, 2018), and voting behavior (Diemer, 2012; Diemer & Li, 2011; Diemer & Rapa, 2016). School-related effects have examined CC antecedents such as school climate (Diemer, Hsieh, & Pan, 2009; Pérez-Gualdrón & Helms, 2017; Seider et al., 2016; Seider et al., 2017), and CC outcomes such as academic functioning (Diemer, 2009; Diemer et al., 2010; Godfrey et al., 2019; Luginbuhl et al., 2016; McWhirther & McWhirther, 2016; Perez-Gualdrón & Helms, 2017; Seider et al., 2016). While these studies are invaluable for developing our understanding of the role of schools in CC production, the role of the larger school context has yet to be examined. That is, the school-related effects literature looks only at *characteristics* of schools, and not the larger social landscape in which schools are situated.

The contemporary study of CC follows on the heels of decades of critical theorists and education researchers aimed at reimagining the classroom in ways that benefit the oppressed. While Freire's work is one case in this tradition, the scientific operationalization of the concepts developed in his work allows researchers to better understand the various factors that impede or bolster CC's development. The operationalization of CC has produced a reflection component, a motivational component, and an action component, all oriented toward combatting inequality and oppression. Following the operationalization and measurement of CC (Diemer et al., 2017; Rapa et al., 2020), scholars have examined both school-

related, and non-school related factors. Among the school-related factors, only factors at the individual level have been considered, and no research to date has examined the school-level factors that influence CC development directly, or indirectly via individual-level factors. One indirect factor that may be impacted by the school setting is classroom climate.

### **Critical Consciousness and Classroom Climate**

Most often classroom climate has been conceptualized as the degree to which teachers promote open dialogue of social and political issues with students. However, other studies have operationalized classroom climate as the interpersonal relationships between students and teachers (Perez-Gualdrón & Helms, 2017), principal support for students' sociopolitical development (Diemer, Hsieh, & Pan, 2009), and the pedagogical model used in a school (Seider et al., 2016, 2017). Nonetheless, across these varying definitions, both qualitative and quantitative research demonstrate positive effects on CC-development.

Qualitative work has found that teachers who engage in classroom discussion with Mexican American students about social justice and issues related to oppression promoted students' CC development (Cervantes-Soon, 2012). Among 17-year-old activists' identity development, work has demonstrated the importance of critical discussion with mentors, including mentors and teachers at school, in the development of CC (Fullam, 2017). Thematic analysis identified three primary school practices that CC development in low-SES high school aged adolescents of color: 1. Teaching material related to social justice (i.e., history, politics/government, civics, etc.), 2. Connecting social justice material to real-world examples, and 3. Classroom discussion of fellow classmates (Clark & Seider, 2017).

Quantitative work reports evidence supporting similar links, with some exceptions (Diemer, Hsieh, & Pan, 2009; Seider et al., 2017). Cross-sectional work done by Diemer & Li (2011) found that the sociopolitical support of teachers had a small association with the sociopolitical control of youth. Similarly, Godfrey & Grayman (2014) found that an open classroom environment predicted school efficacy, critical political efficacy, and greater engagement in community service among students of color. Longitudinal evidence from Perez-Gualdrón & Helms (2017) found that a school relational climate was related to social justice orientation among Latinx youth from 8<sup>th</sup> to 12<sup>th</sup> grade. Seider et al. (2016) found that over a one-year period, adolescents attending "progressive" schools improved their critical reflection skills more than students attending "no excuses" schools. Rapa et al. (2020) find that classroom climate is related to the reflection, motivation, and action dimensions of CC. Finally, Bowers et al. (2021) found that mentoring relationship quality is related to critical reflection and hopeful future expectations for Black youth but not Latinx youth.

The literature on classroom climate and CC-development is consistent despite varying definitions of classroom climate, and distinct yet conceptually overlapping outcome variables. In general, climates where students are encouraged to participate in discussions where they learn about, and provide tangible examples of their experience with, oppression, leads to an increased awareness of these issues. In some cases, this awareness also contributes to motivation and actions to combat these inequalities. These

studies provide early preliminary support for Freire's work, for these classroom climates are a core tenet of his and other critical pedagogy theories. What is left unclear however, is how these climates may differ as a function of the school in which they are situated. One school setting that may be relevant are those found in college preparatory schools.

## **College Preparatory Schools**

College Preparatory schools, or "Prep" schools, have long been considered conduits for elite college enrollment, preparing privileged youth for life at exclusive colleges (Cookson & Persell, 1985). As College enrollment has expanded in recent decades, not all students in Prep schools attend elite colleges (Kahn, 2011), but these preparatory schools still nonetheless continue to provide an exclusionary advantage to the privileged (Farmer-Hinton, 2011). Life in college prep schools provide a unique advantage to students through the use of diverse and rigorous curricula (Koh & Kenway, 2016), highly credentialed faculty (Farmer-Hamilton, 2011), comprehensive counselor services (Perna, 2005), and supportive school and classroom climates (Holland & Farmer-Hinton, 2009). These components of prep schools reveal intentional acculturation efforts designed to position students for selective college admissions and occupational trajectories (Gatzambide-Fernandez, 2009; Kahn, 2011; McDonough, 1997; Peshkin, 2001; Weis et al., 2014). Finally, although elements of college prep schools are imitated by public schools with the intention of providing advantages to less-privileged students, the advantageous outcomes are generally confined only to those attending prep schools in their entirety (Weis et al., 2014). This is because much of the advantages of schooling occur well before the postsecondary context, and because college prep schools bestow cultural capital necessary for exclusionary privilege accumulation (Cipollone & Stich, 2017).

Inequalities continue to persist not only in access to college prep schools (Cipollone & Stich, 2017), but in access to college prep coursework imitated by public schools as well. Since the late 1980's, public high schools around the U.S. have gained more access Advanced Placement (Geiser & Santlices, 2004; Kolluri, 2018) and more recently, International Baccalaureate courses (Donaldson, 2017). However, this improved access to rigorous coursework has not translated to an increase in baccalaureate degree completions, or even college admissions (Evans, 2019; Snyder et al., 2016). Moreover, these college prep courses are overwhelmingly participated by white, high SES students (Price, 2021), and is legitimized through practices such as curricular tracking (Gamoran 1987; Gamoran et al. 1997; Long, Conger, and Iatarola 2012; Oakes 2005). Therefore, the imitation of prep school coursework leads to stratification practices in public schools that further perpetuate inequalities and fail to deliver beneficial outcomes to public school students as compared to college prep school students, thus showcasing the relatively high degree of privilege possessed by students able to gain access to college prep schools.

College preparatory schools provide students with a learning environment conducive for subsequent academic and occupational trajectories through the use of rigorous curriculum, expert faculty, and supportive climates. Despite efforts to equalize access, inequalities persist both in access to college prep schools, and to college prep courses taught in public schools, in a manner benefiting the privileged.

While the academic and occupational benefits stemming from these environments are clear, what is less clear is how these environments may foster agency to combat the systems that benefit these privileged students. While no research has examined the role of the school environment on these feelings of agency, research has recently examined how this agency develops for privileged students in general.

### **Critical Consciousness for Privileged Students**

The focus for Freire and others was to specifically focus on improving the conditions of historically marginalized and oppressed groups. However, other scholars argue that researchers should consider how CC develops for privileged students, given the reciprocal nature between privilege and oppression (Godfrey & Burson, 2018; Jemal, 2017). Additionally, these scholars argue that establishing CC as a construct for privileged students would educate them, not about their oppression, but about the oppressive systems by which their privilege is maintained (Diemer et al., 2016). However, the outcomes for privileged students that develop CC remain only theorized, despite the numerous calls for its study. Some scholars suggest that the outcomes stemming from the critical analysis of inequality for privileged students are less clear than for marginalized students (Diemer et al., 2019; Watts et al., 2011), while parents and teachers indicate a level of concern that engaging these privileged students in the critical analysis of their privilege will lead to feelings of guilt among these youth (Bigler & Wright, 2014; Watts et al., 2011). Others argue that, while critical analysis by privileged youth may create feelings of discomfort, this critical analysis may lead these students to strive for greater inclusivity and understanding of others (Ohito, 2016), and feelings of empathy toward marginalized youth (Trawalter & Richeson 2008).

The body of literature devoted to understanding CC in privileged groups is in its infancy. In one study, Diemer et al. (2019) found that White students reported greater critical analysis of inequality than did students of color, and that high-SES students reported greater critical analysis of inequality than did lower-SES students. In another study, Patterson et al (2021) found that, within a sample of predominantly White students in a rural school district, school connection and positive relationships with teachers were positively related to critical agency, and that indicators of school climate variables were generally unrelated to critical action. These studies of CC are consistent with prior work that finds that privileged and affluent youth are more likely to make structural attributions to inequality than are their less privileged peers (Flanagan & Tucker, 1999).

The literature concerned with how CC develops for privileged students is in its infancy. Early research suggests that it does in fact develop for these students, although the implications of this remain unclear and only theorized. Some argue that it will produce feelings of guilt, while others argue it will have a positive impact on students and those around them as well. Nonetheless, while these studies suggest that CC develops for privileged students, they do not provide any explanations for *how* it develops. This gap in knowledge is a key contribution of this paper, for it will elucidate one mechanic (out of a number of theoretically plausible mechanics) by which CC may develop for privileged students—classroom climate.

### **Summary**

The research concerning the role of Classroom Climate on CC-development is robust, however it has yet to consider the role of the larger school context that influences these climates. Additionally, privilege's relationship with CC-development is early on in its development and has not yet considered how privilege and the school context interact as it pertains to CC-development, directly or indirectly. College Prep schools are documented as having more supportive classroom climates, so examining the intersection of College Prep enrollment, privilege, and classroom climate as it relates to CC, is a productive endeavor. Therefore, the current paper will test for structural model between privilege (i.e., race and class), College Prep enrollment, classroom climate, and two dimensions of Critical Consciousness: Critical Reflection and Critical Motivation.

## Method

### Data

The National Education Longitudinal Study of 1988 (NELS:88) was used to conduct the analyses. Other datasets such as the CIVIC Education Study of 1999 are frequently used in CC research, however given the paper's contribution to the literature via College Prep enrollment, the use of NELS:88 was necessary. NELS:88 is a nationally representative data set that provides data about high school students in the United States and their transition to work and/or postsecondary education after high school from 1988 to 2000. Students were surveyed on a wide range of topics such as extracurricular activities, academic performance, experience in schools, and aspirations for the future. Over 25,000 students from over 1,000 schools participated in the survey through a complex sampling design (Kish, 1965) to achieve equal representation of racial, ethnic, and socioeconomic backgrounds to match census data. To achieve this, NELS stratified the country into geographic regions, creating clusters of schools within each strata, and used unequal selection probability of individuals within each cluster to efficiently create a nationally representative sample (Ingels et al., 1998). NELS began in 1988, examining a cohort of 8<sup>th</sup> graders through high school and into adulthood, ending with a final wave of data collection in 2000. This study uses data collected while participants were in 10<sup>th</sup> grade (F1, or the first follow-up).

### Sample

Two samples were used for these analyses. The first sample utilized the entire dataset to construct the latent variable measurement model, which included a total N of 10,190. The second sample was used for the structural equation model and was constructed by observing two criteria: 1. Sample members were enrolled either in a college prep high school or a general high school at F1, and 2. Sample members self-reported a race of either black or white at F1. Therefore, this study's sample does not examine other types of high schools that participants were enrolled in, such as specialized schools or religious schools, and does not include students of other races. This being the case, the study concerns itself only with black/white and SES differences for students who were enrolled either in college prep or traditional high schools in 1990. After observing these criteria and filtering out cases that did not meet these criteria, the final analytic sample for the structural equation model was 8,863 students (N = 8,863). The sample

characteristics were 12.0% African American (n = 1,041), 88.0% White/Caucasian (n = 7,626), 54.7% enrolled in a general high school (n = 4,845), and 45.3% enrolled in a college prep high school (n = 45.3%).

## **Measures**

### ***Outcome Variables***

#### **Critical Reflection & Critical Motivation**

The current study created its own measure of Critical Reflection (CR) and Critical Motivation (CM) using existing variables in NELS:88. Drawing from NELS:88 items used by Diemer et al. (2009) to measure sociopolitical development, and Perez-Gualdron & Helms (2017) measuring social justice orientation, 9 candidate items were selected for latent variable testing. In order to establish the latent model for these constructs, candidate items underwent an Exploratory Factor analysis (EFA) procedure, and then a hierarchical Confirmatory Factor Analysis (CFA) procedure using two separate split-halves of the whole dataset (n = 10,193). Exploratory Factor Analysis (EFA) used a Promax rotation and Kaiser Normalization to account for correlated factors, and a Robust Maximum Likelihood method to account for non-normal distributions. Any factor loadings less than 0.40 in the EFA or CFA stages were removed. During the EFA stage, 4 items were removed due to factor loadings being less than 0.40, and the remaining items (5 items) fit into two factors corresponding to the conceptual definitions of CR and CM provided above. The final CFA results are presented in Figure 1 below. Reliability was computed using McDonald's Omega due to the use of a latent variable model. CR reported an Omega of 0.73 ( $w = 0.73$ ), and CM reported an Omega of 0.59 ( $w = 0.59$ ). CM was used despite low reliability information due to acceptable factor loadings on the factor, and due the use of similar survey items used in other similar studies (Diemer et al., 2009; Perez-Gualdron & Helms, 2017).

#### **Classroom Climate**

The current study also created its own measure of classroom climate. Borrowing the conceptualization used by Perez-Gualdron & Helms (2017), Classroom Climate (CC) is defined as the interpersonal relationships between teachers and students. Using the same procedure as for reliability and validity testing of CR and CM described above, 12 candidate items for CC used a EFA and CFA procedure on separate split-halves of the whole dataset (n = 10,193). to test for its factor structure. Exploratory Factor Analysis (EFA) with a Promax rotation and Kaiser Normalization to account for correlated factors, and a Robust Maximum Likelihood method to account for non-normal distributions, were conducted. Any factor loadings less than 0.40 in the EFA or CFA stage were removed. During the EFA stage, 5 items were removed, and the final CFA model is presented in Figure 1 below. McDonald's Omega was calculated for CC since its factor structure was tested simultaneously with CR and CM, and this scale reported acceptable reliability information ( $w = 0.76$ ).

### ***Predictor Variables***

## College Preparatory High School Enrollment

College Prep school enrollment is measuring using a binary variable with 0 = traditional public school, and 1 = college preparatory school. Other schools such as trade schools, technical schools, or business prep schools, were excluded from the analysis.

## Socio-economic status

Student's Socio-economic status was measured using a composite measure of parent educational attainment, income, and occupational prestige created by the National Center for Education Statistics in the NELS:88 F1 data file.

## Race

Students Race was measured using a student self-report of the student's race, and responses that were not Black/African American or White were filtered out. The race variable used in this study then was a binary variable of 1 = White and 0 = Black/African American.

**Table 1: Descriptive Statistics**

Latent Variable	Item	Responses	Mean	SD
Critical Motivation	Important to do community work, volunteer	1 = Not important 2 = Somewhat important 3 = Very important	1.46	0.58
	Working to correct economic inequalities		1.90	0.70
	Important to help others in community		2.24	0.60
Critical Reflection	Feel it is OK to make sexist remarks	1 = Often 2 = Sometimes 3 = Rarely 4 = Never	3.64	0.73
	Feel it is OK to make racist remarks		3.79	0.58
Classroom Climate	Students get along well with teachers	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree	2.79	0.55
	The teaching is good at school		2.93	0.63
	Teachers are interested in students		2.86	0.68
	When I work hard teachers praise effort		2.60	0.74
	Most teachers listen to me		2.75	0.68

## Data Analysis

Before conducting the analyses, data were screened for skewness and kurtosis, and the relevant transformations were made to facilitate normality—a prerequisite for structural equation modeling (Quintana & Maxwell, 1999). The means and standard deviations for these variables are provided in Table 1 above. The assumption of normality was met with the exception of “Feel it is OK to make racist remarks,” which reported a skewness statistic greater than three. This variable was raised to the second power to facilitate normality (Bollen, 1989).

Partially latent Structural Regression Modeling was used to conduct a mediated path analysis on the variables proposed. As recommended by MacCallum et al (1996), the first step of the analyses was a saturated model with all possible paths tested between all predictor and outcome variables. Next, all the non-significant paths were removed from the model, and the model was then retested. Both models were tested using the *lavaan* package in R, using a Maximum Likelihood estimation method to account for non-normal data, and a bootstrapping approach for coefficient and standard error estimation. For model comparisons, 100 bootstrapped iterations were used, and once a final model was selected, it underwent a 10,000-iteration bootstrapped mediation modeling approach. Global fit was assessed using conventional fit statistics of CFI, TLI, RMSEA, and SRMR. Models reporting values of 0.950 or less for goodness of fit tests (CFI and TLI), and/or values of 0.05 or greater for badness of fit tests (RMSEA and SRMR) were candidates for deletion. Since Chi-Square is easily biased by large sample sizes, Chi-Square tests were not heavily relied upon make comparison decisions. Local fit was assessed by Modification Indices, individual path coefficients in the model, and residual statistics to identify weak areas of the model (Kline, 2015).

## Results

### Measurement Model

The final measurement model that examined the relationship of the indicators to their latent construct found from the EFA stage is provided below. The final measurement model includes two items that measure Critical Reflection, three items to measure Critical Motivation, and five items that measure Classroom Climate. These factors were tested simultaneously, so the use of two items for CR was appropriate. Global fit tests indicate good fit to the data (Chi-Square = 370.346,  $p < 0.00$ ; CFI = 0.982; TLI = 0.974; RMSEA = 0.032; SRMR = 0.020), and all factor loadings were acceptable. The final measurement model is provided in Table 2 below:

### Table 2: Measurement Model Factor Loadings

Latent Variable	Item	Unstandardized Estimate	SE	Standardized Estimate
Critical Motivation	(CM1) Important to do community work, volunteer	1.00	0	0.42
	(CM2) Working to correct economic inequalities	1.60	0.06	0.66
	(CM3) Important to help others in community	1.83	0.07	0.74
Critical Reflection	(CR1) Feel it is OK to make sexist remarks	1.00	0	0.74
	(CR2) Feel it is OK to make racist remarks	4.52	23.26	0.72
Classroom Climate	(C1) Students get along well with teachers	1.00	0	0.77
	(C2) The teaching is good at school	0.76	0.01	0.66
	(C3) Teachers are interested in students	0.84	0.02	0.64
	(C4) When I work hard teachers praise effort	0.80	0.02	0.57
	(C5) Most teachers listen to me	0.49	0.01	0.47

## Structural Equation Model

The results demonstrate that Classroom Climate weakly mediates the relationship between college prep enrollment, CR, and CM. There was an indirect effect of College Prep Enrollment on CR via Climate (std.  $b = 0.030$ ,  $p < 0.001$ ), and an indirect effect of college prep enrollment on CM via Climate (std.  $b = 0.024$ ,  $p < 0.001$ ). College prep enrollment was also directly related to CM (std.  $b = 0.075$ ,  $p < 0.001$ ) but not CR (std.  $b = 0.013$ ,  $p = 0.392$ ). SES was the only privilege variable that was significant in the model. Controlling for SES, Race was not predictive of college prep enrollment (std.  $b = 0.005$ ,  $p = 0.358$ ), but controlling for Race, SES was predictive of college prep enrollment (std.  $b = 0.104$ ,  $p < 0.001$ ). Finally, CR and CM were both significantly correlated with one another (std.  $b = 0.234$ ,  $p < 0.001$ ). All standardized path coefficients, significance values, and standard errors are found in Table 2 below. Global fit statistics show strong fit to the data (Chi-Square = 492.497,  $p < 0.001$ ; CFI = 0.992, TLI = 0.950; RMSEA = 0.036; SRMR = 0.026). Overall, the model effect was significant (std.  $b = 0.249$ ,  $p < 0.001$ ). Local fit statistics corroborate the findings of the global fit tests: Modification Indices suggest no large areas for improvement, no residuals are significantly correlated with one another, and all factor loadings on latent variables are adequate.

**Table 2: Path Statistics**

Path Description	Std. Coefficient	Sig.	95% CI	Std. Error
Prep g Climate	0.115	0.000		0.027
Climate g CR	0.260	0.000		0.024
Prep g CR	0.013	0.392		0.030
Climate g CM	0.207	0.000		0.023
Prep g CM	0.075	0.000		0.033
SES g Prep	0.104	0.000		0.027
Race g Prep	0.005	0.358		0.048
CR « CM	0.234	0.000		0.020
Prep g Climate g CR	0.030	0.000	0.046 – 0.083	0.009
Prep g Climate g CM	0.029	0.000	0.036 – 0.068	0.007
Total	0.249	0.000		0.073

## Discussion

The results presented in the current paper demonstrate that enrollment in a College Preparatory High School is related to Critical Reflection and Critical Motivation development. Additionally, SES is predictive of college prep high school enrollment. This suggests that students belonging to high-SES backgrounds are more likely to experience not only a school context conducive for successful academic and occupational trajectories, but it also provides a context in which students begin to feel that that inequality is unjust, and that something should be done about it. This is significant given that Critical Consciousness as an original concept was intended for oppressed people, and as a construct currently used in the academic literature for racial, ethnic, gender, and economic minorities. These findings suggest that students with class privilege do indeed develop on this construct, and that one key mechanic by which they do so is through an enriched environment via classroom climate. The current study also contributes to the literature by offering a latent variable measure of Critical Reflection, Critical Motivation, and classroom climate using NELS:88 data.

This study also experienced a number of limitations. First, the use of two indicators for a latent variable is admissible under certain circumstances (i.e., estimating two or more factors simultaneously), however it is not ideal. While the CR construct reported strong factor loadings and acceptable reliability information, future iterations studying these relationships should rely on a more comprehensive measure. Second, the findings pertaining to CM should be interpreted with caution given reliability information falling beneath advised thresholds. However, these same items were used by two other authors to study similar constructs, so the use of the same items to measure CM is not entirely misguided, especially considering

the items all reported strong factor loadings. Finally, the standardized coefficients while significant, are small. These findings do not indicate any strong relations between school type, climate, and CR or CM.

This study opens up a number of directions for future research. First, future research should include other school types in their analyses. NELS:88 offers information on other types of high schools such as occupational, technical, and business focused. Given research demonstrating Critical Consciousness development's relations with occupational aspirations and attainment (Diemer & Blustein, 2006; Diemer, 2009; Diemer et al., 2010; Nicholas, Eastman-Mueller, & Barbich, 2019; Olle & Fouad, 2015; Rapa, Diemer, & Bañales, 2018), the role of these sorts of occupational schools could serve as important factors to consider. Second, future research should also inquire into the nature of privilege and its relations with Critical Consciousness. While race and SES are important to consider, it fails to account for other marginalized groups, as well as the idea of relative privilege. The certain assumptions made in this paper about the role of race and SES should be challenged and refined in future research. Third, given the weak effects presented, additional research should identify and include variables that better explain these relations. Finally, future research should attempt to replicate the current study but with comprehensive and multidimensional measures of Critical Consciousness and Classroom Climate. Doing so will allow researchers to be more precise about college preparatory school's relations with aspects of both Climate and Critical Consciousness.

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## Figures

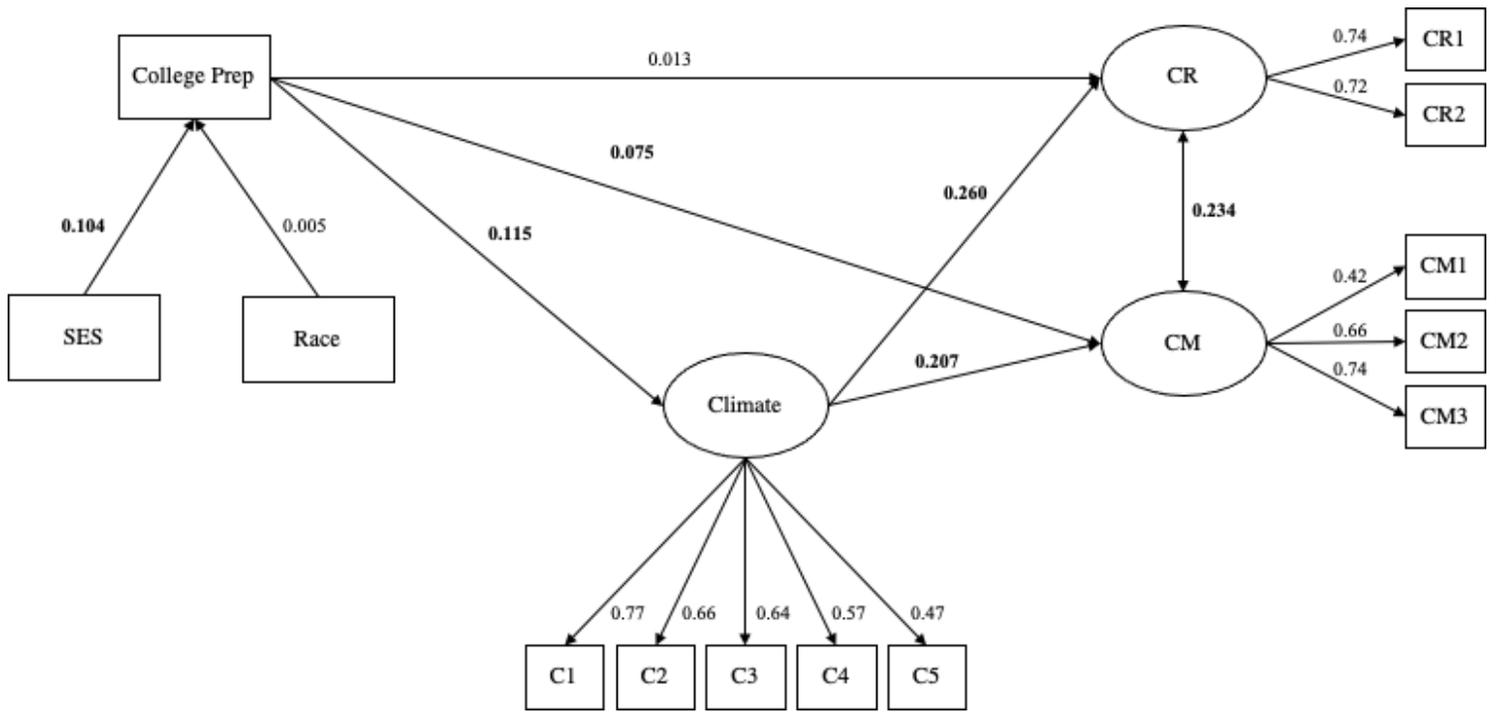


Figure 1

SEM Model