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Los Angeles

Unexamined Beliefs: Understanding Teachers' Reasoning about Poverty

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Education

by

Lindsey Nenadal

2018

ABSTRACT OF THE DISSERATION

Unexamined Beliefs: Understanding Teachers' Reasoning about Poverty

by

Lindsey Nenadal

Doctor of Philosophy in Education

University of California, Los Angeles, 2018

Professor Rashmita S. Mistry, Chair

Teachers' racial, ethnic, and gender biases have been shown to impact their classroom practices and expectations of students, but little research has examined how teachers' poverty-related biases affect their students' educational experiences. This study focused on elementary school teachers' social class bias as it intersected with race, ethnicity, and gender by examining teachers' reasoning about poverty and its relation to their assessment of student work. Data were collected from fifth grade teachers (N = 302) throughout California. Participants were asked to use a provided rubric to assess a single personal narrative and were told that it was written by a fifth grade student, although it was actually written by researchers for the purpose of this study. Before assessing this piece of writing, participants viewed (but did not assess) what they were told was another piece of the same student's writing. The student demographics included in this first piece of writing (i.e., student's social class background, race/ethnicity,

gender) varied and represented one of twelve possible student profiles. This piece of writing was meant to prime the participants as to the demographics of the student whose work they were going to assess. To assess explicit beliefs about poverty, teachers completed a survey a week after assessing the student writing that asked about their own demographics, values, ideologies, and about their beliefs about the traits of poor and middle class people and causal attributions for poverty. Overall, participants endorsed more positive and fewer negative traits for both the poor and middle class and believed that poverty is more likely to be caused by reasons outside of an individual's direct control than by causes within one's control. Political ideology and the endorsement of System Justification and the Protestant Work Ethic were related to beliefs about poverty. Results from the assessment of students' writing should be interpreted with caution, but suggest a significant interaction between the effects of students' race/ethnicity and social class on the grades teachers' assigned the writing. Implications and next steps are discussed.

The dissertation of Lindsey Nenadal is approved.

Sandra H. Graham

Meredith Phillips

John S. Rogers

Rashmita S. Mistry, Committee Chair

University of California, Los Angeles

2018

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VITA

EDUCATION

M.A. in Education 2015
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B.A. in Liberal Studies (*magna cum laude*) 2005
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PROFESSIONAL EXPERIENCE

Graduate Student Researcher 2012 – 2018
UCLA, Los Angeles, CA
Worked on five research projects that involved collaborating with teachers; conducting interviews, surveys, focus groups, and site visits; analyzing, discussing, writing, and presenting data to teachers, schools, and larger educational and research audiences.

Classroom Evaluator 2018
The New Teacher Project (TNTP), California
Observed and evaluated first-year teachers using the TNTP Core Teaching Rubric.

Field Supervisor for Pre-Service Teachers 2017 – 2018
Teacher Education Program, UCLA, Los Angeles, CA
Supported pre-service and first-year teachers through observations, debriefs, planning sessions, and individualized Master's Degree project support.

Research Assistant on Program Evaluation Team 2016 – 2018
Glass Frog Solutions, New York, NY
Observed classes, interviewed teachers in an Arts and English Language Development Program.

Teaching Assistant in Six Courses 2015 – 2017
Departments of Education and Psychology, UCLA, Los Angeles, CA
Participated in weekly planning meetings with professors, lectured, led class activities, worked closely with students in class and office hours, and provided in-depth feedback on assignments.

Elementary and Middle School Summer School Teacher 2013 – 2015
Camino Nuevo Charter Academy, Los Angeles, CA
Created and implemented a summer school educational plan to meet the academic needs of students and help prepare them for the upcoming school year.

Second and Third Grade Teacher 2008 – 2012
Camino Nuevo Charter Academy, Los Angeles, CA
Met students' needs by collaborating with teachers, attending Teacher's College Reading and Writing Summer Institutes, and being a Cotsen Foundation for the Art of Teaching Fellow.

Fourth and Fifth Grade Teacher 2006 – 2008
Centennial College Preparatory Academy, Huntington Park, CA
As a founding teacher that helped open this new middle school, used standards and student data to create pacing plans, unit plans, and lessons to teach fourth and fifth grade students.

SELECTED PUBLICATIONS

Nenadal, L. & Mistry, R.S. (2018). Teacher reflections on using inquiry-based instruction to engage young children in conversations about wealth and poverty. *Early Childhood Research Quarterly.*

Mistry, R.S., Nenadal, L., Griffin, K., & Hazelbaker, T. (2017). The pedagogy of economic inequality: An evidence-based approach to promote elementary school-age children's understanding of wealth, poverty, and civic engagement. *PS: Political Science and Politics.*

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Mistry, R. S., White, E. S., Chow, K. A., Griffin, K., & Nenadal, L. (2016). A mixed methods approach to equity and justice research: Insights from research on children's reasoning about economic inequality. *Invited chapter for Ruck, M., Liben, L., & Horn, S. (Eds), Equity and Justice in Developmental Sciences: Theoretical and Methodological Issues. Advances in Child Development and Behavior* (Vol. 50, pp. 209–236). Elsevier.

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Nenadal, L., Hazelbaker, T., Griffin, K.M., & Mistry, R.S. (2017). *Won't You Be My Neighbor: Elementary school children's conceptions of neighborhood wealth distribution and fairness.* Paper presented at Society for Research in Child Development, National Conference, Austin, TX.

Pham, J., Diera, C., Nenadal, L., & Tanio, N. (2017). *The multiple meanings of social justice in an urban residency teacher education program*. Paper presented at American Association of Colleges for Teacher Education National Conference, Tampa, FL.

Nenadal, L. & Mistry, R.S. (2016). *Teacher reflections on talking to young children about poverty and inequality.* Paper presented at American Educational Research Association, National Conference, Washington, D.C.

Cochran, H., Nenadal, L., Wilson, C., Mistry, R.S., & Thomas, C. (2015). *Drawings, photographs, mixed media to discuss poverty and inequality.* Paper presented at National Art Education Association, National Conference, New Orleans, LA.

INTRODUCTION

In 2016, roughly one in every five children lived in poverty in the United States (National Center for Education Statistics, 2018). What we know from decades of research is that living in poverty affects children's social, emotional, and cognitive development and negatively impacts school readiness skills (Brooks-Gunn & Duncan, 1997; McLoyd, Mistry, & Hardaway, 2014). What we know less about is teachers' beliefs about and biases toward individuals living in poverty, the role that those beliefs and biases play in the classroom, and how they may impact students' educational experiences. This is in spite of voluminous research demonstrating that teachers' racial, ethnic, and gender biases affect students in myriad ways, including through lowered achievement expectations (Gershenson, Holt, & Papageorge, 2015) and differences in the scoring of classroom assessments (Lavy & Sand, 2015). Although there is currently little, if any, research available about teachers' beliefs about individuals living in poverty, studies have shown that many American adults endorse negative stereotypes about poor people, such as the belief that poor people are lazy and uneducated (Cozzarelli, Wilkinson, & Tagler, 2001). If endorsed by teachers, these beliefs could result in biases that negatively impact students' experiences in the classroom. This is especially important to consider at the elementary school level, as this is a time period when children spend the majority of the day with one teacher and their developing ideas of self are influenced by the feedback they receive from those in their most proximal environments, including teachers (Cole, Jacquez, & Maschman, 2001; Eccles, 1999). To address these gaps in the literature, my dissertation study examined elementary school teachers' beliefs about individuals living in poverty and how possible biases may have impacted their assessment of students' writing. Further, the larger goal of this study was to give

researchers and educators a better understanding of teachers' beliefs and practices so that they can continue to work together to support teachers' in meeting the needs of all students.

Literature Review

Achievement Gap

Millions of students in elementary schools today come from homes where their families struggle to get their basic needs met. Nearly 5 million (21%) children ages 6 to 11 live in poverty, while 10.5 million (44%) live in low-income families (Koball & Jiang, 2018). Living in poor and low-income households is not experienced equally by all racial and ethnic groups (Diemer, Mistry, Wadsworth, López, & Reimers, 2013) and in 2016, approximately 60% of Black, Hispanic, and American Indian children, as compared with 28% of their White and Asian peers, lived in low-income households (Koball & Jiang, 2018). These percentages were calculated using the federal poverty threshold, which compares a family's pre-taxed income to a measure of need based on the size of the family (Diemer et al., 2013). In 2016, the year from which the most recent national poverty data are available, the average poverty threshold for a family of four was $24,399 (U.S. Census Bureau, 2018). This threshold is also used to determine what it means to be *low-income,* although definitions vary slightly depending on the source. The U.S. Department of Education defines low-income as living at or below 150% of the poverty threshold (e.g., an annual income of approximately $36,500 for a family of four in 2016) (Federal TRIO Programs, 2018), while researchers often recognize low-income as between 100% and 200% of the threshold (e.g., annual income of less than $49,200 for a family of four in 2016) (Huston & Bentley, 2010). Although definitions may differ, there is a strong consensus that living near the poverty threshold is associated with hardships that can affect children's development (Brooks-Gunn & Duncan, 1997; Huston & Bentley, 2010).

One such area that can be affected by living in low-income and poor households is children's readiness for entering elementary school. School readiness is often measured through assessing children's language and literacy development, cognition and general knowledge, approaches toward learning, physical well-being and motor development, and social and emotional development (U.S. Department of Education, n.d.). As compared with 75% of their middle- to upper-income peers, only 48% of children who live in poverty demonstrate school readiness skills at the age of 5 (Isaacs, 2012). Further, this gap that exists at the entry into formal schooling persists throughout children's schooling experiences. Using data gathered from 12 nationally representative studies, Reardon (2013) compared math and reading achievement scores between high-income students (family income in the 90th percentile) and low-income students (family income in the 10th percentile) from the past 50 years. He found that the income achievement gap grew 30 to 40 percent over a thirty-year period, is now almost twice as large as the Black-White achievement gap, and remained stable across years in school.

There are a number of reasons why the income achievement gap may exist and remain unwavering across the school years. Larger societal factors, such as the growing income inequality in the United States (Reardon, 2013), the increase in economically segregated schools (Orfield & Lee, 2005), and the difference in the allocation of funds between high- and low-income schools (U.S. Department of Education, 2015a), play a part in the academic disparities between high- and low-income students. Factors inside schools, such as the differences between teachers' qualifications in high- and low-income schools (Lankford, Loeb, & Wyckoff, 2002; Peske & Haycock, 2006), impact the quality of students' education. And factors inside the classroom, such as teachers' beliefs about individuals living in poverty and their possible biased

classroom practices, may have implications for poor and low-income students' educational experiences.

Reforms in low-performing schools often focus on integrating new curricula and programs and on making larger systemic changes, with little attention paid to addressing teachers' beliefs about their students (Warren, 2002). What is even more disconcerting is that some teacher trainings can further reify stereotypes about students from poor and low-income households. For example, Ruby Payne is well known in the professional development circuit for her book and workshop titled *A Framework for Understanding Poverty*. Her website states that she is "an expert on the mindsets of economic classes and overcoming the hurdles over poverty" and "has trained hundreds of thousands of professionals," including teachers and administrators (aha! Process Inc., 2017, para. 2). However, multiple scholars (for example, see Gorski, 2008; van der Valk, 2016) have identified numerous concerns about her work, including how it perpetuates the idea of the "culture of poverty" and focuses on individual interventions instead of addressing systemic causes of poverty. Workshops like those offered by Payne run the risk of perpetuating teachers' stereotypic beliefs and negatively impacting classroom practices and interactions with students. Poor and low-income students often already enter the classroom at an academic disadvantage and their educational experiences can become even further compromised based on how their teachers perceive and address the academic and behavioral challenges they present (Okonofua, Walton, & Eberhardt, 2016). To better support teachers in meeting the needs of their poor and low-income students, researchers and educators must first understand teachers' beliefs about and biases toward students from poor and low-income households.

Teacher Biases

Few would argue that most teachers enter the teaching profession with good intentions. In a survey of almost 900 teachers, 90% said that helping "underprivileged" children was a factor in deciding to become a teacher, with 68% listing it as a major factor or one of the most important factors (Johnson, Yarrow, Rochkind, & Ott, 2012). Further, three-fourths of those surveyed agreed that good teachers can help all students learn, including those from disadvantaged backgrounds. While many teachers want all of their students to be successful and strive to meet their needs, personal beliefs and biases can implicitly impact their practices and interactions in the classroom (Flannery, 2015), which can result in differential treatment of students. As Slater (2008) writes,

> So even if what we teach is value-neutral, our teaching – by the manner in which we do it and the nature of our interactions in the course of it – conveys messages to our children about how they should regard themselves, consider others and meet their obligations (p. 47).

A bias, or a "personal and sometimes unreasoned judgment" (Merriam-Webster, 2017) may be explicit or implicit. Staats, Capatosto, Wright, and Jackson (2016) defined implicit bias as "the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner. Activated involuntarily, without awareness or intentional control. Can be either positive or negative. Everyone is susceptible" (p. 14). Some studies use lab-based Implicit Association Tests to measure teachers' implicit beliefs (for example, see O'Brien, Hunter, & Banks, 2006; van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010), but multiple studies have also examined how teachers' implicit biases show up in the more authentic contexts of their teaching practices and interactions in the classroom.

For example, a recent study with middle and high school teachers found differences in their assessment of student work based on students' race/ethnicity. Harber and colleagues (2012) found that White middle and high school teachers were more likely to give higher marks

on a poorly written essay when the student was identified as Black or Latino (Black students only when teachers also reported a lack of support at school) than they were when the same essay was identified as being written by a White student. The authors posited that this "positive feedback bias" may have been due to teachers being more lenient on Latino students' writing mechanics and mastery of English and their own "self-image concerns" (p. 1158) when assessing Black students' work.

Researchers have also documented how teachers' beliefs and practices differ based on students' gender. Much of this work has focused on teachers' perceptions of students' math effort and ability, with studies suggesting that upper-elementary school teachers perceived boys as being more talented at math than girls and girls as trying harder, but being less logical, at math than boys (Jussim & Eccles, 1992; Tiedemann, 2000). However, in terms of assessments and grades, Cornwell, Mustard, & Parys (2013) observed that, after examining objective test score data and subjective teacher-given grade data, student test scores and teacher-given grades did not match up. Throughout the elementary school grades, although girls outperformed boys on reading assessments and boys most often outperformed girls on math and science assessments, teacher-given grades often favored girls. The grades given to boys did not match their performance on the assessments.

Although not nearly as abundant as research on teachers' race, ethnicity, and gender biases, limited research has looked at how teachers' perceptions of students and their families differ based on social class. When Auwarter and Aruguete (2008) asked teachers to respond to a vignette that varied only in gender and parent occupation (used as a proxy for socioeconomic status (SES)), they found that teachers indicated that the low-SES students had less promising futures than the high-SES students. Further, high-SES boys received higher evaluations of

personal characteristics (e.g., "competent") than low-SES boys, whereas low-SES girls received higher evaluations than high-SES girls. While not able to explain the differences in the evaluations of boys and girls, the authors cited these findings as evidence of the importance of doing research that examines more than one student characteristic at a time (e.g., SES and gender). And though not explicitly focused on students, Norman (2016) found in her small qualitative dissertation study that elementary school teachers endorsed common stereotypes of low-SES parents, such as being unskilled and not smart, and thought that these parents were not doing enough to support their children.

Extant research suggests that teachers' perceptions of, expectations of, and practices towards students can be biased based on students' group membership (e.g., race and ethnicity, gender, SES). Although many teacher bias studies focus on one or two student demographics at a time (e.g., SES and gender), scholars are calling for the use of an intersectional approach in research that considers students' multiple social categories at once (e.g., SES, gender, and race and ethnicity; Ghavami & Mistry, *forthcoming*; Hancock, 2007). Because biases may differ according to the overlap of multiple categories, it is important to examine these intersections to better understand what may be driving teachers' biased practices. For example, in the case of this study, if a teacher appears to have a negative bias towards low-income students, might this bias look different in her grading of a paper written by a White female student from a poor family versus that of a Black male student from a poor family? This type of intersectionality is especially important and interesting to examine considering the overrepresentation of Black, Hispanic, and American Indian children living in low-income households (Koball & Jiang, 2018) and the potential that has to impact teachers' beliefs.

Whether biases are based on students' race/ethnicity, gender, socioeconomic status, or a combination of the three, they can have serious implications for students' outcomes. Teachers' expectations of students shape how and what they teach to those students (Timperley & Phillips, 2003) and their perceptions of students can ultimately impact students' academic outcomes (Rosenthal & Jacobson, 1968). These biases can impact already marginalized groups (Ferguson, 2011) and further perpetuate the cycles of inequality that we see in our educational system and society today (Okonofua, Walton, & Eberhardt, 2016). Although limited research has shown that teachers have different perceptions of students based on SES (Auwarter & Aruguete, 2008), more work is needed to examine how teachers' classroom practices may differ based on students' social class and how their reported beliefs about poverty may relate to their assessment of student work.

Adults' Beliefs About Poverty

Although there are not currently any studies focused on assessing teachers' explicit beliefs about poverty, multiple studies have examined how American adults think about poverty. These beliefs have often coincided with the endorsement of the American Dream, a term first coined by James Truslow Adams in his 1931 book, *The Epic of America*, when he described "that dream of a land in which life should be better and richer and fuller for everyone, with opportunity for each according to ability or achievement…and be recognized by others for what they are, regardless of the fortuitous circumstances of birth or position" (p. 317). This belief in social and economic mobility has been a staple of American culture and, although Americans' belief in the American Dream has fluctuated over the years, a recent Gallup poll found that 62% of Americans still believe that if you work hard, you can get ahead (Newport, 2016). The idea of a permeable boundary between classes can lead individuals to view living in

poverty as something they can change if they just work a little harder (Williams, 2009). However, in reality, the United States currently has one of the highest rates of economic inequality among all industrialized countries (Desilver, 2013) and over 40% of children born into the bottom level of the income distribution will stay there as adults (Reeves, 2014).

Research has shown that American adults vastly underestimate the level of wealth inequality in the United States and would prefer to live in a country with a more equal wealth distribution than what is currently found in our society (Norton & Ariely, 2011). However, even though Americans favor a redistribution of wealth, such that resources from the upper quintile are shared with the bottom four quintiles (Norton & Ariely, 2011), American adults have also been shown to hold negative stereotypes about those in the lowest income quintile. For example, Cozzarelli and colleagues (2001) found college students endorsed more negative (e.g., uneducated, unmotivated) and less positive stereotypes (e.g., capable, hardworking) about the poor than about the middle class. Stronger work ethic beliefs were related to the endorsement of negative stereotypes about the poor and an Independent political affiliation, as compared to a Republican affiliation, was related to the endorsement of more positive and less negative stereotypes about the poor. Lott (2002) suggests that these types of pervading negative stereotypes about the poor create an "us" versus "them" mentality between the haves and the have-nots, with far-reaching policy implications.

Policy support for those living in poverty may also be impacted by adults' perceptions of the causes of poverty. Attribution theory posits that when trying to understand a situation, such as why someone lives in poverty, a person gathers information to determine what they believe is the cause of the situation and this belief shapes accompanying feelings and actions (Weiner, Osborne, & Rudolph, 2011; Zucker & Weiner, 1993). Researchers often categorize causes of

poverty into three separate categories: individualistic (e.g., lack of effort, lack of thrift), structural/societal (e.g., discrimination in hiring, government insensitive to the poor), and fatalistic (e.g., bad luck) causes (Bullock, 1999; Mistry, Brown, Chow, & Collins, 2012; Seider, 2011). Although there has not been a study that looks specifically at teachers' beliefs about the causes poverty, other studies have found that conservative adults (Zucker & Weiner, 1993), middle-class adults (Bullock, 1999), and college students (Cozzarelli et al., 2001) endorse individualistic attributions more often than structural/societal and fatalistic attributions.

Although the three categories help in classifying perceived causes of poverty, the same causal category may invoke different feelings and actions from the perceiver (Weiner et al., 2011). For example, having a disability and spending money on things you do not need are both categorized as individualistic causes of poverty, but are likely to provoke very different feelings and motivations toward a poor person. Whereas poverty caused by a disability may lead to feelings of sympathy and a desire to help, poverty caused by spending habits may lead to feelings of anger and a lack of desire to provide assistance. Weiner and colleagues (2011) suggested a more comprehensive classification system that recognizes these nuances. Using their taxonomy, a perceived cause of poverty is simultaneously categorized on three dimensions: locus, which identifies the cause as either internal or external to the individual; stability, which identifies the cause as either enduring or temporary; and controllability, which identifies the cause as either within or outside of one's control (see Table 1). This comprehensive classification taxonomy allows a more fine-grained examination of perceived causes of poverty and the various feelings and actions that accompany each cause. This comprehensive classification system can offer researchers a more nuanced view of beliefs about poverty.

Table 1

Examples of Causes of Poverty Items in Each Causal Domain

		LOCUS	
CONTROLLABILITY	**STABILITY**	**Internal**	**External**
Controllable	**Stable**	Laziness Lack of thrift	Discrimination Prejudice
	Unstable	Bad strategy Temporary lack of effort	High taxes Low wages
Uncontrollable	**Stable**	Lack of aptitude Physical handicap	No jobs Poor land for crops
	Unstable	Temporary illness	Bad luck Chance seasonal variations in the job market

Note. Taken from Weiner, Osborne, and Rudolph (2011).

Blaming individuals for living in poverty is a belief that has been strongly endorsed over the decades (Bullock, 1999; Cozzarelli et al., 2001; Kluegel & Smith, 1981; Zucker & Weiner, 1993) and has implications for the millions of Americans living in poverty. American adults are less likely to support policies aimed at alleviating the effects of poverty when poverty is attributed to individualistic, rather than structural or societal, causes (Bullock, Williams, & Limbert, 2003). Further, although prior research has not examined teachers' explicit beliefs about poverty, a national survey found teachers' belief that the government should help the poor decreased more drastically than that of other Americans over the past 40 years (Slater, 2008). While there is evidence of how beliefs may play out in terms of policy endorsement, researchers have not yet studied how the beliefs held by teachers impact the experiences of their students.

Why the Elementary School Years are Important

Differences in the treatment of students based on beliefs and biases may seem small at the time – a few points off here, a lowered grade there. However, considering the amount of

time elementary school students spend with their classroom teachers, such actions can quickly accumulate and impact students' education. In California, the required amount of instructional time students must receive increases by grade level (e.g., 1st – 3rd grades receive 840 instructional hours a year, 9th – 12th receive 1,080) (California Department of Education, 2018a). Although students in the upper grades are required to receive more hours of instruction per year, their learning time is likely divided between multiple teachers, whereas elementary school students spend most, if not all, of their instructional time with one teacher. If an elementary school teacher holds negative beliefs and biases that impact classroom practices, the educational experiences of poor and low-income students may be affected multiple times during a single school day.

Further, biased expectations and actions can be especially detrimental during middle childhood (8- to 12-years-old), when children's notions of self-concept are developing (Cole et al., 2001). Eccles (1999) describes how young children in early elementary school are confident about their abilities to perform on a number of tasks, but that their ideas about their own abilities decline over the elementary school years. By age 10, they are less optimistic about their abilities and tend to rate themselves closer to their actual performance ratings. This decline in ability self-concept only continues as children get older. Eccles partially attributes this to the feedback children receive, their ability to reflect on their actions, and their ability to compare themselves to others. As she states, "They learn that current failures are likely to be clues to future performances" (p. 36). While this may mean that some children become more realistic about their abilities as they get older, it may also mean that children who are held to lower expectations or receive inaccurate grades begin to question their own academic abilities.

A low academic self-concept has implications for a child's effort and performance throughout the school years. Cole and colleagues (2001) followed a group of elementary school students from third grade through sixth grade to assess how their own ratings of self-concept (e.g., academic competence, social acceptance) evolved during middle childhood and whether these ratings corresponded with the ratings given by teachers, parents, and peers. They found that children's self-ratings more strongly resembled how others' rated them over time. It is not unlikely that biased practices in elementary classrooms convey messages to students about their academic abilities, which may influence their capacity to think of themselves as learners as they progress through school.

Current Study

Millions of elementary school students live in poverty (Koball and Jiang, 2018) and the income achievement gap that is present at kindergarten continues to exist throughout children's schooling experience (Reardon, 2013). Although research has shown how teachers' racial/ethnic and gender biases impact their expectations and practices (Harber et al., 2012; Jussim & Eccles, 1992; Tiedemann, 2000), little research has looked at elementary school teachers' beliefs about poverty or how teachers' reported beliefs relate to their assessment of student work. Such biases could have negative implications for children's educational experiences. The goal of this dissertation study was to understand elementary school teachers', specifically fifth grade teachers', reasoning about poverty and whether their beliefs moderated their assessment of student work (see Figure 1 for Conceptual Model). The proposed study sought to answer the following research questions:

1. What are elementary school teachers' beliefs about poverty and how do they relate to their demographics and values and ideologies?

2. How does a student's social class, race/ethnicity, and gender affect a teachers' assessment of his or her writing?
3. How do teachers' beliefs about poverty moderate their assessment of student writing?

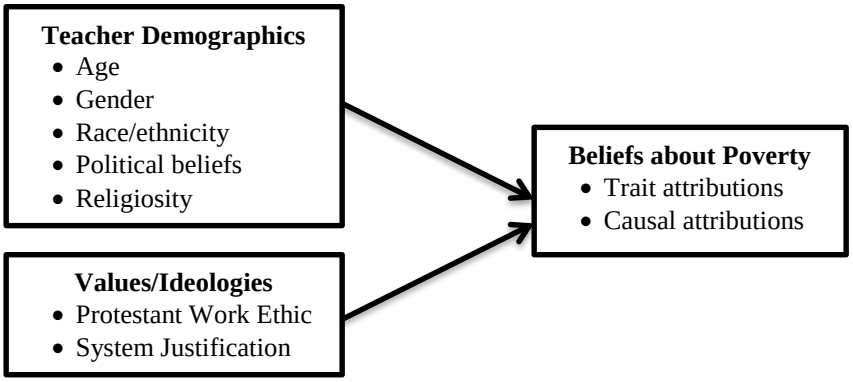
Study Design

To assess teachers' explicit beliefs about poverty and possible implicit biases that impact classroom practices, participants were asked to complete a survey about their beliefs and assess a piece of student work. First, to assess possible implicit biases, all participants were asked to use a provided rubric to assess a single personal narrative and were told that it was written by a fifth grade student, although it was actually written by researchers for the purpose of this study. However, before assessing this piece of writing, participants viewed (but did not assess) what they were told was another piece of the same student's writing. The student demographics included in this first piece of writing (i.e., student's social class background, race or ethnicity, gender) varied and represented one of twelve possible student profiles. This piece of writing was meant to prime the participants as to the demographics of the student whose work they were going to assess, as such demographics may lead to biased grading of the second piece of writing. Next, to assess their explicit beliefs about poverty, teachers were asked to complete a survey a week after assessing the student writing. The survey contained questions about their own demographics and about their beliefs about the traits of poor and middle class people and causal attributions for poverty.

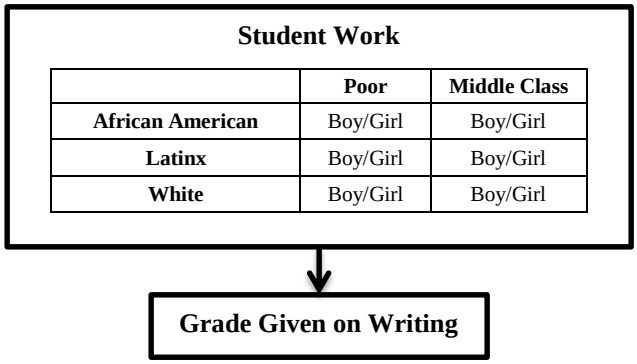
Hypotheses

Research Question 1. Prior research that has examined American adults' beliefs about poverty informed the hypotheses for my first research question. Studies have found that conservative adults (Zucker & Weiner, 1993) and college students (Cozzarelli et al., 2001) more

RQ 1: What are elementary school teachers' beliefs about poverty and how do they relate to their demographics and values and ideologies?



RQ2: How does a student's social class, race/ethnicity, and gender affect a teachers' assessment of his or her writing?



RQ3: How do teachers' beliefs about poverty moderate their assessment of student writing?

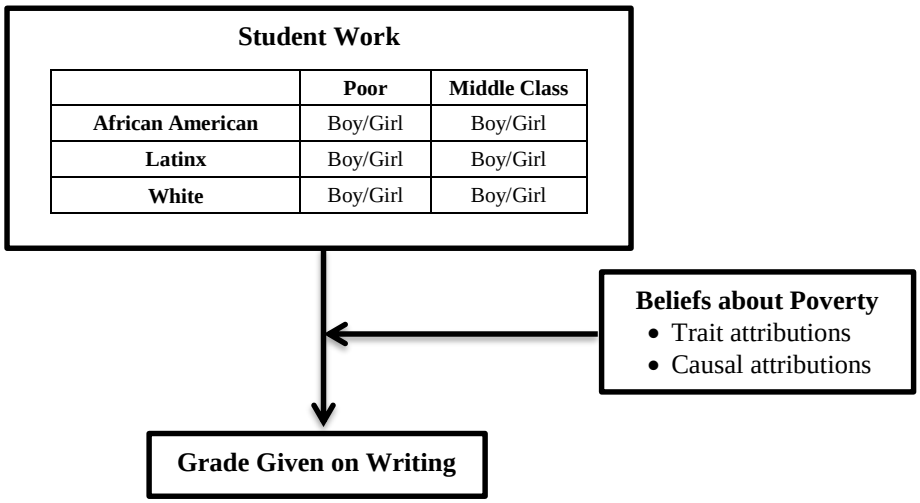


Figure 1. Conceptual model.

strongly endorsed individualistic attributions over structural/societal and fatalistic attributions. Additionally, those with a stronger endorsement of the Protestant Work Ethic, compared to those with a lower endorsement, tended to hold more negative stereotypes about poor individuals than of middle class individuals (Cozzarelli et al., 2001). Therefore, I hypothesized that elementary school teachers who identified as Conservative, compared to those who did not, would have higher endorsements of internal locus causes of poverty. Further, I hypothesized that teachers with a stronger endorsement of the Protestant Work Ethic and System Justification (these measures are further described in the Methods section) would have more negative views and fewer positive views about poor individuals compared to middle class individuals.

Research Question 2. Based on research that has shown that teachers have lower expectations of students of color and of low-income students than of their White or higher income peers (Auwarter & Aruguete, 2008; Harber et al., 2012), I hypothesized elementary school teachers would give lower grades to African American and Latinx[1] students and poor students than they would give to their White and middle class peers. Additionally, I hypothesized that teachers would give girls higher grades than boys based on prior studies that have found that teachers give higher grades to girls than to boys (Cornwell et al., 2013). Based on these hypotheses and taking into consideration the intersection of race/ethnicity, social class, and gender, I believed the following would also be found on the assessment of students' writing:

- African American and Latino boys would receive lower grades than African American and Latina girls and White boys and girls

[1] Latinx is used in this paper in place of Latino/a and Latin@ because it is gender-neutral and inclusive of all Latin American descendants (Ramirez & Blay, 2016).

- Poor African American and Latina girls would receive lower grades than poor and middle class White girls
- Poor African American and Latino boys would receive lower grades than middle class African American and Latino boys
- Poor White boys would receive lower grades than poor White girls and middle class White boys and girls
- Poor African American and Latino boys would receive lower grades than poor and middle class African American and Latina girls and White boys and girls

Research Question 3. In regards to my third research question, I hypothesized that teachers who had higher endorsements of negative traits and lower endorsements of positive traits about people living in poverty and had higher endorsements of internal locus causes of poverty would give poor students lower grades than middle class students.

Methods

Participant Recruitment

Participants were recruited from five regions in California (i.e., San Diego, Los Angeles Metropolitan area, Central Coast, Central Valley, and the Bay Area). Because the study asked teachers to asses a piece of writing written at the fifth grade level, only fifth grade teachers or those who had taught fifth grade in the past five years were recruited. Using the online database *Ed Data: Education Data Partnership* (Education Data Partnership, 2017), I identified a list of public elementary schools and accessed their publicly available websites to obtain the email addresses of fifth grade teachers. Some school websites did not list teacher email addresses and others only allowed visitors to email teachers directly through the website. Teachers at these schools were not included in recruitment because emails needed to be sent directly to email

addresses from Qualtrics, the online platform used to distribute the writing assessment and survey.

The recruitment email invited teachers to "participate in a UCLA educational research study focused on better understanding who teachers are and how they assess student writing" (see Appendix A) and a link was provided if they chose to participate in the study. After clicking on the link, they were asked to read a study information sheet, indicate if they agreed to participate, indicate if they currently taught fifth grade or taught it in the past five years, and then were asked to assess a piece of student writing. Seven days after assessing the student writing, they received a follow-up email asking them to complete the survey. One day after completing the survey, a study debrief sheet was emailed to them (see Appendix B). Participants who did not respond to the initial recruitment email were sent an additional three follow-up reminder emails.

Recruitment of participants in Los Angeles County began in late January 2018. Between late January and mid-February 2018, 666 recruitment emails were sent to fifth grade teachers in Los Angeles County. However, only 65 teachers completed Part 1 (a 10% response rate) during this time. Given the low response rate from teachers in Los Angeles County, the sampling frame was expanded to include the following California counties: Orange, Riverside, San Bernardino, San Diego, Imperial, and Ventura. Again, the participant response rate was low and the sampling frame area was further expanded to include counties in Central California and the Bay Area (see Table 2 for more information). In total, recruitment emails were sent to 4,413 teachers in California. Teacher data were collected from 302 teachers who completed Part 1 (a 7% response rate). Of these, 237 completed Part 2 of the study survey. See Figure 2 for a map of where participants were located in California.

Table 2

Counties, Districts, Schools, and Participants Represented in Study Sample

	Total participants		Number of schools participants came from		Number of districts participants came from	
	n	%	*n*	%	*n*	%
Bay Area Region						
Alameda County	10	3%	9	4%	3	3%
Contra Costa	6	2%	4	2%	3	3%
Santa Clara	28	9%	25	10%	11	10%
Santa Cruz	2	1%	2	1%	2	2%
Central Valley Region						
Fresno County	7	2%	7	3%	7	6%
Inyo County	1	>1%	1	>1%	1	1%
Kern County	9	3%	8	3%	6	5%
Kings County	8	3%	6	2%	6	5%
Merced County	2	1%	1	>1%	1	1%
Tulare County	12	4%	9	4%	4	4%
Central Coast Region						
Monterey County	13	4%	10	4%	4	4%
San Luis Obispo	8	3%	7	3%	4	4%
Santa Barbara	5	2%	5	2%	3	3%
Los Angeles Region						
Los Angeles	47	16%	43	17%	16	14%
Orange County	44	15%	37	14%	11	10%
Riverside County	19	6%	16	6%	7	6%
San Bernardino	12	4%	11	4%	6	6%
Ventura County	14	5%	11	4%	7	6%
San Diego Region						
San Diego	55	18%	45	18%	13	11%
Total	302		257		115	

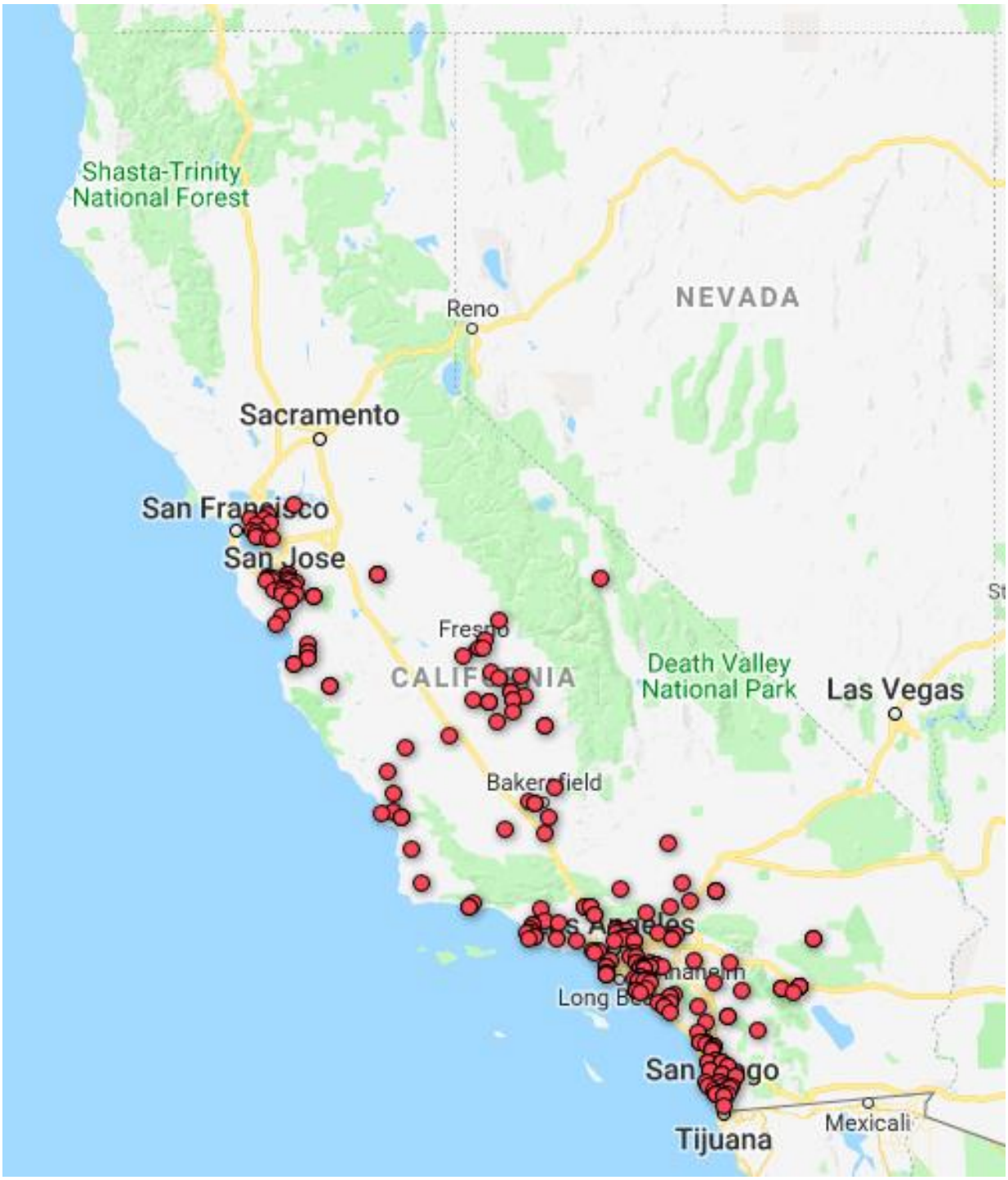


Figure 2. Locations of participants throughout California.

Participants

Participants in this study (N = 302) came from 257 schools, in 115 school districts, across 19 counties throughout Southern and Central California. Of those schools, 17 (6%) were charter schools and 173 (57%) received Title I funding from the government, which is given to schools "with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging academic standards" (U.S. Department of Education, 2015b). All participants either taught fifth grade at the time of the study or had taught fifth grade sometime in the past five years. Teachers' specific teaching assignments differed, with the majority (n = 265; 88%) indicating they taught a self-contained fifth grade class and the remainder stating that they either previously taught fifth grade or teach fifth graders in a form other than a standard fifth grade class (e.g., fourth and fifth grade combination class, fifth grade English Language Arts class). Participants were majority White (67%), female (83%), identified as middle class (81%), and had been teaching for over ten years (63%), which mirrors the teacher population in the United States (National Center for Education Statistics, 2017). Approximately half of the sample identified as Democrat (50%) and as holding liberal political views (46%). Teachers were diverse with respect to their religious affiliation and religiosity. See Table 3 for a full description of the study sample.

Table 3

Descriptives of Study Sample (N = 302)

	n	%
Gender (*n* = 301)[a]		
Male	48	16%
Female	251	83%
Other [c]	2	1%
Age (*n* = 301) [a, d]		
Under 30 years old	42	14%
30 – 39 years old	81	27%
40 – 49 years old	86	29%
50 years old and older	92	31%
Race/Ethnicity (*n* = 301) [a]		
East Asian (e.g., Japanese, Chinese, Korean)	15	5%
Southeast Asian (e.g., Vietnamese, Filipino)	4	1%
Black or African American	6	2%
Hispanic and/or Latino/a	45	15%
Pacific Islander	6	2%
White	201	67%
Other [c]	16	5%
More than 1 race or ethnicity	12	4%
Highest Level of Completed Education (*n* = 302) [a]		
Four-year college graduate	43	14%
Some graduate credit	74	25%
Master's Degree completed	127	42%
Credit beyond Master's Degree	55	18%
PhD or EdD completed	3	1%
Political Views (*n* = 237) [b, d]		
Liberal	110	46%
Moderate	71	30%

Conservative	56	24%
Political Ideology (*n* = 237) [b]		
Democrat	119	50%
Republican	51	22%
Libertarian	6	3%
Independent	43	18%
Other [c]	19	8%
Self-Identified Social Class (*n* = 237) [b]		
Working class	34	14%
Middle class	191	81%
Upper class	12	5%
Religious Affiliation (*n* = 236) [b]		
Buddhist	2	1%
Catholic	47	20%
Jewish	4	2%
Protestant	62	26%
Other [c]	50	21%
Not religious	71	30%
Religiosity (*n* = 236) [b]		
Not at all	63	27%
A little	62	26%
Somewhat	64	27%
Very	47	20%
Years Teaching (*n* = 301) [a, d]		
0 – 5 years	69	23%
6 – 10 years	42	14%
11 or more years	190	63%
Current Placement (*n* = 302) [a]		
Self-contained fifth grade class	264	87%
Other (e.g., combination class)	38	13%

Note. [a]Data collected during Part 1 of the study. [b]Data collected during Part 2 of the study. [c]Participants were not asked to provide more information after choosing the "other" option. [d]Scale collapsed.

Measures

All measures were collected using the online survey platform, Qualtrics. The measures were separated into two parts and into two administrations. Part 1 contained the assessment of student writing and some demographic questions. Part 2, which was made available to participants a week after they completed Part 1, contained survey questions about beliefs and ideologies, as well as an additional set of demographic questions.

Part 1: Assessment of student writing. After participants provided consent and confirmed their fifth grade teaching status, they were provided with the following prompt:

> We are interested in how teachers assess student writing and have created a new online rubric for teachers to use. The rubric allows teachers to give students both a numeric score and written feedback for three different areas: organization and focus, elaboration and details, and conventions. We have gathered multiple pieces of narrative writing from fifth grade students in Los Angeles County.[2] Below you will see two pieces of writing, both written by the same fifth grade student. Please carefully read both pieces. On the next page you will be randomly assigned one of the pieces to grade.

In reality, the writing was written by researchers and was reviewed by a group of fifth grade teachers. Participants were randomly assigned to one of twelve possible narratives to read first, which was intended to act as a prime, and then all participants were assigned the same second piece of writing to assess. The second piece of writing did not contain any student demographic

[2] The stated location of where the writing was gathered from did not change, even when the study expanded to outside of Los Angeles County.

information. For the first piece of writing (Examples A and B in Appendix C), details were manipulated to convey differences in social class, gender, and race and ethnicity, resulting in a total of 12 fictitious students (Table 4).

Table 4

The Fictitious Student Profiles Represented in the Manipulated Writing

	Poor	**Middle Class**
African American	Boy/Girl	Boy/Girl
Latinx	Boy/Girl	Boy/Girl
White	Boy/Girl	Boy/Girl

Student social class was conveyed through the specific details included in the stories (as indicated by the bolded and underlined words in each example story in Appendix C). These details were chosen after multiple sessions with researchers and graduate students, in which social class cues, and how obvious to make such cues, were discussed. Student race/ethnicity was conveyed through the student's name that appeared three times throughout the story, in the beginning, middle, and end (Table 5). The names were chosen after consulting prior research focused on the associations individuals' make between certain names and certain races/ethnicities (Milkman, Akinola, & Chugh, 2015). After choosing an initial 12 names, I paid a small fee to individuals employed through Amazon Mechanical Turk (MTurk) to pilot my name association task. Some names were not associated with the expected race or ethnicity (e.g., Maria, which was meant to be associated with a Latina and was not). They were replaced with a different name and the process was repeated until the majority of MTurk respondents indicated each of the twelve names was associated with the desired race/ethnicity. The student's name, as

well as pronouns (i.e., she or he) used throughout the story, were used to convey the student's gender.

Table 5

The Fictitious Student Names Represented in the Manipulated Writing

	Male Name	**Female Name**
African American	Lamar	Keisha
Latinx	Jose	Alejandra
White	Grayson	Megan

Grading using a rubric. Participants were asked to assess the second piece of student writing using a rubric adapted from the Smarter Balanced Writing Performance Rubrics (Smarter Balanced Assessment Consortium, 2014). Smarter Balanced Rubrics are used to assess writing in many California schools with the passage of the Common Core Standards (Common Core State Standards Initiative, 2017). A 5-point scale was used to assess each of the following writing components: organization and focus, elaboration and details, and conventions. These were then added together to create a final score out of a possible 15 points. After piloting this assessment with 12 fifth grade teachers, it was decided to include half point options on the rubric (e.g., 1, 1.5, 2). The average score that fifth grade teachers gave to the second piece of writing during piloting was in the "B" range (i.e., 80-89%, 12 to 13 points).

Report card and class placement questions. Participants were also asked two follow-up questions about whether or not they thought the student was meeting grade-level standards (e.g., *You are getting ready to write out report cards. Based on the writing that you saw, this student is performing: a)below a fifth grade level and needs extra support in writing in order to meet fifth*

grade expectations, b) at a fifth grade level and meeting grade-level expectations, c) above a fifth grade level and needs to be challenged).

Participants were asked to indicate whether they would mark the student as performing below, at, or above a fifth grade level on a report card. Of the three choices, 98 (31%) participants indicated below grade-level, 197 (65%) indicated at grade-level, and 11 (4%) indicated above grade-level. The at- and above- grade-level groups were combined for further analyses. When asked what middle school English class placement they would recommend for the student for the following year, participants overwhelmingly responded that they would place the student in an on grade-level English class (n = 258; 85%) as compared to a remedial English class (n = 28, 9%) or an Honors English class (n = 16, 5%). Because of the highly kurtotic distribution, this measure was not included in further analyses.

***Manipulation check*.** After assessing the writing, participants were asked five questions that acted as a manipulation check. This was used to assess whether or not the participants picked up on the student demographic clues presented in the first piece of writing they were asked to read. The instructions stated, "We need to assess how carefully participants read students' narratives. The following questions are designed for that purpose. Please answer to the best of your knowledge." Three questions asked about the student's gender, race/ethnicity, and social class background and two questions asked about the content of the student writing (e.g., where the student went for Spring Break). The two content questions were included as filler questions in order to help not alert participants to the focus of this study (i.e., whether or not grades given on writing differed on a student's demographics). Participants were asked to indicate the student's social class background on a scale of 0 to 100, with the lowest, middle, and highest points labeled to serve as references (i.e., 0 = *Poor*, 50 = *Middle Class*, 100 = *Rich*). For

analysis purposes, marks between 0 and 49 were coded as "poor" and marks 50 and above were coded as middle class.

The majority of participants correctly identified the gender (n = 262, 87%) and social class (n = 196, 80%) of the student. However, there was a much lower accuracy rate in participants' identification of the students' race/ethnicity (n = 154, 55%) (see Table 6). Asian was given as an option in the manipulation check, even though Asian students were not represented in the intended demographics. Four (1%) participants indicated they thought the student was Asian and these were coded as missing data and were not included in analyses. Further examination of the data revealed that when African American students were incorrectly identified, they were most often identified as Latinx. Supported by my hypotheses that African American and Latinx students would most likely experience the most biases and receive the lowest grades, the African American and Latinx groups were collapsed into a larger "Racial/Ethnic Minority" category for further analyses. If a participant was given a piece of writing that was manipulated to appear that it was written by an African American or Latinx student and the participant indicated that it was written by a student of either of those racial/ethnic backgrounds, they were marked as correctly identifying the student as a Racial/Ethnic Minority student (e.g., if a participant indicated an African American piece of writing was written by a Latinx student, it was marked as correct for identifying as a Minority student). A majority of participants (n = 183, 65%) correctly identified whether the student was a White or Racial/Ethnic Minority student.

When looking across all manipulation checks, approximately half of participants correctly identified all of the demographics (n = 117, 49%; i.e., social class, gender, and whether

Table 6

Distribution of Student Demographics and Participants Perceptions' of Demographics

Student Demographics in Assigned Narratives (N = 302)		Participants' Correct Identification of Student Demographics [a]				
	n (%)	Social Class Correct *n* (%)	Gender Correct *n* (%)	Race/ Ethnicity Correct *n* (%)	Minority/ White Correct *n* (%)	Social Class, Gender, Minority/ White Correct *n* (%)
Twelve student profiles						
Poor African American Male	23 (8%)	22 (96%)	18 (78%)	14 (61%)	19 (83%)	17 (77%)
Poor African American Female	27 (9%)	21 (96%)	25 (93%)	9 (35%)	19 (76%)	16 (73%)
Middle Class African American Male	27 (9%)	11 (61%)	22 (82%)	14 (54%)	18 (72%)	8 (47%)
Middle Class African American Female	26 (9%)	10 (71%)	24 (92%)	10 (42%)	18 (75%)	7 (50%)
Poor Latino Male	24 (8%)	19 (83%)	20 (83%)	16 (70%)	16 (70%)	16 (70%)
Poor Latina Female	28 (9%)	23 (96%)	27 (96%)	21 (75%)	23 (82%)	20 (83%)
Middle Class Latino Male	22 (7%)	12 (63%)	17 (77%)	18 (86%)	18 (86%)	6 (33%)
Middle Class Latina Female	27 (9%)	12 (55%)	24 (92%)	18 (69%)	18 (72%)	8 (38%)
Poor White Male	25 (8%)	23 (96%)	24 (96%)	6 (24%)	6 (24%)	4 (17%)
Poor White Female	23 (8%)	18 (86%)	20 (87%)	6 (27%)	6 (29%)	3 (16%)
Middle Class White Male	26 (9%)	14 (70%)	21 (81%)	15 (65%)	15 (65%)	9 (47%)
Middle Class White Female	24 (8%)	11 (65%)	20 (83%)	7 (29%)	7 (37%)	3 (20%)
Overall	302 (100%)	196 (80%)	262 (87%)	154 (55%)	183 (65%)	117 (49%)

Note. [a]Some participants did not answer the manipulation check questions, resulting in a lower *n*.

the student was of a Minority group or White). Across the intersection of social class, gender, and race/ethnicity, the greatest degree of accuracy was for poor African American and poor Latinx students and the lowest was for poor White students. This check (whether the participant got all three manipulations correct or not) was controlled for in the analyses for Research Questions 2 and 3.

Part 2: Teacher survey. Participants were given a survey to assess their beliefs about poverty and values and ideologies (see Appendix D for all survey questions).

Values and ideologies. To measure participants' beliefs about the existing social system and whether or not they believe it fair and justified, Kay and Jost's (2003) 8-item System Justification measure was used. Using a 7-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*), participants were asked to indicate the degree to which they agreed or disagreed with eight statements about society (e.g., "*In general, you find society to be fair*", "*Everyone has a fair shot at wealth and happiness*").

To measure participants' beliefs about the importance of hard work and discipline in achieving success, an 11-item measure of the endorsement of the Protestant Work Ethic (Katz & Hass, 1988) was given. Participants used a 7-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*) to indicate how strongly they agreed with statements, such as, "*Anyone who is able and willing to work hard has a good chance of succeeding*" and "*Money acquired easily is usually spent unwisely."*

Guided by previous literature (Cozzarelli et al., 2001; Kay & Jost, 2003), scores on all 8 items on the System Justification measure (α = .74) were averaged and scores on all 11 items on the Protestant Work Ethic measure (α = .78) were averaged. On average, participants' scores fell near the midpoint (i.e., 4 = *Neither agree nor disagree*) for their beliefs in both System

Justification (*M* = 3.66, *SD* = .88) and the Protestant Work Ethic (*M* = 4.19, *SD* = .77), indicating a somewhat neutral endorsement of these values and ideologies.

Trait attributions of individuals based on social class. Participants' beliefs about the characteristics of people living in poverty was assessed using an adapted version of the social class trait attribution measure used by Mistry, Brown, White, Chow, and Gillen-O'Neel (2015). Using a 5-point scale (1 = *None* to 5 = *All*), participants indicated how many poor people were each of the listed 12 characteristics. These items included both positive (e.g., *hard-working, nice, honest)* and negative (e.g., *lazy, dumb, dirty*) traits. To understand if these beliefs differed from participants' beliefs about individuals from a higher economic background, participants were asked to rate the characteristics of middle class individuals using the same scale and 12 items.

In addition to examining the poor and middle class trait attribution items at an individual level, exploratory factor analyses using principal components and Varimax rotations were conducted for both the poor and middle class attributions to create factor scores (see Table 7). Consistent with previous literature (Cozzarelli et al., 2001), the factor analyses for both the poor and middle class attributions indicated a two-factor solution with eigenvalues greater than one: *positive traits* (poor: α = .88; middle class: α = .90) and *negative traits* (poor: α = .89; middle class: α = .87). For the trait attributions of the poor, these components explained 47% and 18% of the variance. For the trait attributions of the middle class, the two components explained 44% and 20% of the variance. Based on these analyses, positive trait composite scores were created by averaging the responses for the six positive attributions (poor: *M* = 3.44, *SD* = .50; middle class: *M* = 3.53, *SD* = .45) and negative trait composite scores were created by averaging the six negative attributions (poor: *M* = 2.37, *SD* = .49; middle class: *M* = 2.39, *SD* = .46).

Table 7

Factor Loadings for Exploratory Factor Analyses for Attributions of Poor and Middle Class

Items	Factor 1 Positive Attributes	Factor 2 Negative Attributes
How many poor people are:		
Smart	**0.76**	-0.16
Good	**0.77**	-0.28
Polite	**0.82**	-0.18
Honest	**0.83**	-0.19
Clean	**0.77**	-0.12
Hardworking	**0.74**	-0.18
Lazy	-0.26	**0.74**
Dirty	-0.18	**0.80**
Dumb	-0.28	**0.78**
Bad	-0.14	**0.84**
Rude	-0.12	**0.76**
Dishonest	-0.20	**0.82**
How many middle class people are:		
Smart	**0.84**	-0.10
Good	**0.83**	-0.15
Polite	**0.75**	-0.15
Honest	**0.82**	-0.24
Clean	**0.80**	-0.18
Hardworking	**0.79**	-0.11
Lazy	-0.12	**0.81**
Dirty	-0.17	**0.65**
Dumb	-0.17	**0.72**
Bad	-0.13	**0.82**
Rude	-0.11	**0.77**
Dishonest	-0.15	**0.81**

Note. Extraction method: Principal component analysis. Rotation method: Varimax rotation with Kaiser Normalization.

Causal attributions for poverty. To understand participants' perceptions of the causes of poverty, they were asked to rate their level of endorsement of 15 items as possible causes of poverty (Weiner, Osborne, & Rudolph, 2011). Using a 5-point scale (1 = *Not at all important* to 5 = *Extremely important*), participants rated how important they perceived 15 different factors to be as possible causes of poverty (e.g., *laziness, lack of thrift*). This measure was adapted from the work of Weiner, Osborne, and Rudolph (2011).

Guided by the literature from which the causal attribution measure was based (Weiner, Osborne, & Rudolph, 2011), individual causal attribution items were categorized into the following domains: internal locus, external locus, stable, unstable, controllable internal, controllable external, uncontrollable internal, and uncontrollable external. See Table 1 on page 11 for examples of items in each of these domains. For analyses, the controllable domain was split into an internal and external group, as causes can be controlled by both the individual (internal) and by outsiders (external). To be consistent for analysis purposes, the uncontrollable causes domain was also divided into an internal and external group.

For purposes of further analyses, difference scores were calculated for each of the four pairs of causal domains to reduce the domains to a more manageable number (see Table 8). A 5-point scale (1 = *Not at all important* to 5 = *Extremely important*) was used for this measure, indicating a possible range of -4 to 4 for difference scores.

Table 8

Descriptives and Difference Scores for Causal Attributions Domains

Domains	*M*	*SD*
Locus internal	3.08	0.57
Locus external	3.14	0.61
Difference score	-0.06	0.65
Stable	3.23	0.56
Unstable	2.98	0.54
Difference score	0.24	0.49
Controllable internal	3.01	0.73
Controllable external	3.40	0.76
Difference score	-0.39	1.00
Uncontrollable internal	3.18	0.68
Uncontrollable external	2.88	0.64
Difference score	0.30	0.70

Note. M = Mean. *SD* = Standard Deviation. For each pair of domains, difference scores were calculated by subtracting the bottom domain from the top (e.g., locus internal minus locus external). Higher scores indicate the extent to which participants endorse one domain versus the other.

Demographics. Participants were asked to respond to 11 questions about their personal (e.g., age, race or ethnicity, social class identification) and professional background (e.g., number of years spent teaching).

Results

Research Question 1: What are elementary school teachers' beliefs about poverty and how do they relate to their demographics and values and ideologies?

Descriptive findings. Participants' endorsement of positive traits of both the poor and middle class hovered slightly above the midpoint (i.e., the belief that "a moderate amount" of poor or middle class people exhibit positive traits), while their endorsement of negative traits of both social classes was toward the lower end of the scale (i.e., the belief that "a few" poor or middle class people exhibit negative traits). See Table 9 for all means and standard deviations. In terms of their trait endorsements of poor individuals, participants' positive ratings (M = 3.44, SD = .50) were significantly higher than their negative trait attribution ratings (M = 2.37, SD = .49), $t(236) = -19.58$, $p < .001$. Similarly, when looking solely at the middle class, their positive trait endorsements (M = 3.53, SD = .45) were also significantly higher than their negative trait endorsements (M = 2.39, SD = .46), $t(236) = -23.40$, $p < .001$. However, when comparing the trait endorsements between the poor and middle class, participants' had a significantly higher endorsement of positive traits for the middle class (M = 3.53, SD =.45) than for the poor (M = 3.44, SD = .50), $t(236) = -3.59$, $p < .001$. No significant differences were found between their endorsements of negative ratings of the poor (M = 2.37, SD =.49) and the middle class (M = 2.39, SD = .46), $t(236) = -.846$, $p = .40$. Overall, participants endorsed more positive and fewer negative traits for both the poor and middle class, indicating a favorable view of both of these social class groups. However, their endorsement of positive traits of the middle class was significantly higher than that of the poor.

Table 9

Participants' Beliefs about the Poor and Middle Class: Trait Attributions

	Poor *M (SD)*	Middle Class *M (SD)*	*t-test*
How many poor/middle class people are:			
Smart	3.33 (.67)	3.52 (.55)	-4.61**
Hardworking	3.48 (.65)	3.69 (.52)	-4.57**
Polite	3.48 (.64)	3.39 (.58)	2.12*
Good	3.55 (.56)	3.55 (.54)	0
Clean	3.31 (.66)	3.58 (.55)	-6.61**
Honest	3.47 (.59)	3.45 (.56)	.46
Positive Traits Composite Score	3.44 (.50)	3.53 (.45)	-3.59**
Dumb	2.27 (.66)	2.27 (.63)	.10
Dirty	2.37 (.60)	2.24 (.53)	3.09**
Rude	2.37 (.59)	2.60 (.66)	-5.10**
Lazy	2.50 (.67)	2.42 (.60)	1.72
Bad	2.31 (.54)	2.33 (.56)	-.56
Dishonest	2.30 (.55)	2.47 (.59)	-2.26*
Negative Traits Composite Score	2.37 (.49)	2.39 (.46)	-.85

Note. M = Mean. *SD* = Standard Deviation. Scores ranged from 1 (None) to 5 (All). *$p < 0.05$, **$p < 0.01$.

In terms of causal attributions, paired-samples t-tests were conducted between the two categories in each causal attribution domain (difference scores for causal attribution domains were calculated and used for later regression analyses). The results revealed that participants gave significantly higher ratings to stable causes (e.g., laziness, no jobs; $M = 3.23$, $SD = 0.56$) than to unstable causes (e.g., low wages, temporary illness; $M = 2.98$, $SD = 0.54$), ($t(236) = 7.63$, $p < .001$); controllable external causes (e.g., discrimination, high taxes; $M = 3.40$, $SD = 0.76$) than controllable internal causes (e.g., lack of thrift, temporary lack of effort; $M = 3.01$, $SD =$

0.73), ($t(236) = -6.025$, $p < .001$); and uncontrollable internal causes (e.g., lack of aptitude, temporary illness; $M = 3.18$, $SD = 0.68$) than uncontrollable external causes (e.g., bad luck, no jobs; $M = 2.88$, $SD = 0.64$), ($t(236) = 6.86$, $p < .001$). There was not a significant difference between ratings of internal locus (e.g., physical handicap, bad strategy; $M = 3.08$, $SD = 0.57$) and external locus causes (e.g., prejudice, low wages; $M = 3.14$, $SD = 0.641$) causes ($t(236) = -1.42$, $p = .16$). This pattern suggests that in general, participants believed that poverty is more likely to be caused by reasons outside of an individual's direct control (e.g., lack of aptitude, discrimination) than causes within one's control (e.g., bad strategy).

Table 10

Participants' Endorsement of Causes of Poverty by Individual Items

	M	*SD*
Individual items		
Laziness	3.21	1.14
Low Wages	3.82	0.95
Discrimination	3.44	1.03
Lack of thrift	2.83	1.03
Bad luck	2.17	0.91
Chance seasonal variations in job market	2.94	0.88
Physical handicap	3.28	1.04
High taxes	2.92	1.13
Bad strategy	2.95	0.98
Poor land	2.73	1.01
Temporary illness	3.05	0.96
Lack of aptitude	3.22	0.97
Prejudice	3.42	1.01
Temporary lack of effort	3.03	1.02
No jobs	3.69	1.03

Note. M = Mean. *SD* = Standard Deviation. Scores ranged from 1 (Not at all important) to 5 (Extremely important).

Table 11

Participants' Endorsement of Causes of Poverty by Domains

	M (SD)	*t-test*
Domains		
Locus internal	3.08 (0.57)	1.42
Locus external	3.14 (0.61)	
Stable	3.23 (0.56)	7.63**
Unstable	2.98 (0.54)	
Controllable internal	3.01 (0.73)	-6.03**
Controllable external	3.40 (0.76)	
Uncontrollable internal	3.18 (0.68)	6.86**
Uncontrollable external	2.88 (0.64)	

Note. M = Mean. *SD* = Standard Deviation. Scores ranged from 1 (Not at all important) to 5 (Extremely important). *$p < 0.05$, **$p < 0.01$.

Correlations among demographics, values, ideologies, and beliefs about poverty.

Pearson correlations were computed to assess the relationships between participants' demographics and their endorsements of System Justification, the Protestant Work Ethic, negative and positive traits about the poor and middle class, and causal attributions for poverty (see Tables 12, 13, 14). Although Title I funding status served as a covariate in analyses and is not a main variable of interest, it is interesting to note that being younger, male, or Latinx (as compared to those who were older, female, or White) was associated with teaching at schools that received Title I funding.

In terms of the correlations between participants' demographics and their endorsements of values, ideologies, traits, and causes of poverty, multiple statistically significant relationships were observed. Older, as compared with younger participants, had lower endorsements of

negative traits for the poor and the middle class, as well as higher endorsements of positive traits for both the poor and the middle class. Age was not significantly associated with any of the causal attribution variables. Participants' conservative beliefs, as compared with liberal beliefs, were associated with a higher level of endorsement of System Justification beliefs, Protestant Work Ethic values, and negative traits of the poor and a lower level of endorsement of positive traits of the poor.

Further, when looking at correlations related to the endorsement of causes of poverty, participants' conservative beliefs were associated with a higher level of endorsement of internal (e.g., lack of thrift) versus external (e.g., prejudice) locus causes and more internal (e.g., laziness) versus external (e.g., discrimination) controllable causes than liberal participants. They also endorsed more stable (e.g., lack of aptitude) versus unstable (e.g., temporary illness) causes. Additionally, participants who were more religious more strongly endorsed System Justification and Protestant Work Ethic values, internal (versus external) locus causes, and internal (versus external) controllable causes of poverty than those who stated they were less religious. Interestingly, race/ethnicity was not significantly correlated with most of the outcome variables.

Table 12

Correlations Among Independent Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.Bay Area	-													
2.Valley	-.15*	-												
3.Coast	-.13*	-.11	-											
4. San Diego	-.20**	-.17**	-.16*	-										
5. Title I	-.15*	.22**	0.07	-.07	-									
6.Age	.09	-.19**	-.15*	.14*	-.14*	-								
7.Gender	.02	.00	-.05	-.01	.16*	.00	-							
8.Latinx	-.04	.04	.03	-.05	.21**	-.15*	.02	-						
9. Other Minority	.21**	-.14*	-.05	-.05	.01	.03	-.03	-.20**	-					
10.MPV	-.04	-.05	.01	-.04	-.01	.06	-.05	.04	-.06	-				
11.CPV	-.01	.15*	-.11	-.10	-.02	.06	.01	-.09	-.02	-.36**	-			
12. Religiosity	-.03	.16*	-.09	-.14*	.05	.09	-.06	.07	-.03	.06	.42**	-		
13. SJ	-.07	.01	-.11	.00	.08	.10	.10	-.07	-.01	.02	.30**	.23**	-	
14. PWE	-.10	.11	-.06	-.01	.07	-.11	.13*	.12	-.14*	.02	.39**	.37**	.20**	-

Note. All of the regions (Bay Area, Valley, Coast, San Diego) were dummy coded (1), with the largest region, Los Angeles, serving as the reference category (0). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Gender: Female = 0, Male = 1. Latinx and Other Minority (all Minority and biracial categories other than Latinx) were dummy coded (1), with the largest racial/ethnic group, White, serving as the reference category (0). MPV = Moderate Political Views; CPV = Conservative Political Views. Moderate and Conservative Political Views were dummy coded (1), with the majority category, Liberal, serving as the reference category (0). Religiosity choices ranged from 1 (Not at all) to 4 (Very). SJ = System Justification. PWE = Protestant Work Ethic. Higher scores represent greater endorsement of the construct on all continuous measures. See page 33 for more information on causal attribution difference scores. *$p < 0.05$, **$p < 0.01$.

Table 13

Correlations Among Dependent Variables

	15	16	17	18	19	20	21	22
15. Neg. Traits Poor	-							
16. Pos. Traits Poor	-.45**	-						
17. Neg. Traits Middle Class	.63**	-.18**	-					
18. Pos. Traits Middle Class	-.26**	.64**	-.38**	-				
19. Locus	.16*	-.23**	.02	.02	-			
20. Stability	.07	-.07	-.10	.03	.14*	-		
21. Controllability	.20**	-.26**	.05	-.01	.87**	.04	-	
22. Uncontrollability	-.02	.00	-.03	.06	.53**	.18**	.06	-

Table 14

Correlations Among Independent and Dependent Variables

	15. Neg. Traits Poor	16. Pos. Traits Poor	17. Neg. Traits MC	18. Pos. Traits MC	19. Locus	20. Stability	21. Controllability	22. Uncontrollability
1. Bay Area	.01	.01	-.06	.01	-.14*	-.08	-.11	-.11
2. Valley	-.04	.00	.00	-.03	.08	.11	.08	.02
3. Coast	.02	.11	.00	.01	-.10	.01	-.10	-.04
4. San Diego	.02	.00	.04	.04	.05	.03	.02	.07
5. Title I	.12	-.06	.12	.01	.08	.02	.04	.08
6. Age	-.16*	.19**	-.13*	.23**	.05	-.04	.05	.02
7. Gender	.00	-.10	.07	-.07	.16*	-.04	.17*	.06
8. Latinx	.04	-.05	.06	-.05	-.01	-.04	-.02	.01
9. Other Minority	.04	-.05	.00	-.02	-.05	-.05	-.04	-.05
10. MPV	-.02	.04	.00	-.04	.11	-.02	.08	.08
11. CPV	.16*	-.21**	.00	-.01	.35**	.14*	.41**	.01
12. Religiosity	.10	-.02	.06	.08	.16*	.03	.23**	-.07
13. SJ	-.09	.06	-.19**	.24**	.33**	.11	.32**	.13*
14. PWE	.23**	.20**	.16*	-.06	.46**	.14*	.51**	.06

Note. All of the regions (Bay Area, Valley, Coast, San Diego) were dummy coded (1), with the largest region, Los Angeles, serving as the reference category (0). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Gender: Female = 0, Male = 1. Latinx and Other Minority (all Minority and biracial categories other than Latinx) were dummy coded (1), with the largest racial/ethnic group, White, serving as the reference category (0). MPV = Moderate Political Views; CPV = Conservative Political Views. Moderate and Conservative Political Views were dummy coded (1), with the majority category, Liberal, serving as the reference category (0). Religiosity choices ranged from 1 (Not at all) to 4 (Very). SJ = System Justification. PWE = Protestant Work Ethic. Higher scores represent greater endorsement of the construct on all continuous measures. See page 33 for more information on causal attribution difference scores. *$p < 0.05$, **$p < 0.01$.

Regression analyses. A series of hierarchical multiple regression analyses were conducted to determine whether participants' demographics, values, and ideologies predicted their trait attributions about the poor and middle class and their causal attributions for poverty. The following three models were run for each of the eight dependent variables. In Model 1, covariates, which included the California region where participant schools were located (Los Angeles Region served as the omitted reference group) and a variable indicating whether or not the school received Title I funding, were added in Step 1. Participant demographics (e.g., age, political views) were added in Step 2. In Model 2, school covariates were added in Step 1 and participants' values and ideologies (i.e., System Justification, Protestant Work Ethic) were added in Step 2. Finally, Model 3 included the school covariates (Step 1), participant demographics (Step 2), and participant values and ideologies (Step 3). All F-statistics reported below are for the Model 3 in the identified trait or causal attribution.

Trait attributions about the poor and middle class. Across positive and negative traits for both the poor and middle class, participants' level of System Justification endorsement was a significant predictor in the regression models. Participants' who more strongly endorsed a System Justification ideology had higher positive trait attribution ratings and lower negative trait attribution ratings for both the poor (positive: $F(14, 220) = 2.97$, $p < .001$; negative: $F(14, 220) = 2.53$, $p = .002$) and middle class (positive: $F(14, 220) = 2.61$, $p = .002$; negative: $F(14, 220) = 2.07$, $p = .01$). See Tables 15 and 16 for specific variable information. This suggests that those who believe that society runs in a fair and just way, as compared to those who have a lower endorsement of that belief, had more extreme views of poor and middle class people, such that they had higher positive views and fewer negative views of both classes. Further, age and conservative beliefs were significant predictors for both positive and negative trait attributions of

Table 15

Multiple Regression Analyses Predicting Trait Attributions for the Poor

	Positive Traits Poor					**Negative Traits Poor**				
	Model 1		Model 2		Model 3	Model 1		Model 2		Model 3
	β	β	β	β	β	β	β	β	β	β
Covariate										
Bay Area	0.03	0.02	0.03	0.03	0.02	0.02	0.04	0.03	0.04	0.04
Central Valley	0.04	0.09	0.04	0.04	0.10	-0.07	-0.12	-0.07	-0.09	-0.14
Central Coast	0.14*	0.14*	0.13	0.13	0.15*	0.00	0.00	0.01	0.01	-0.01
San Diego	0.03	-0.03	0.02	0.02	-0.02	0.02	0.07	0.02	0.02	0.06
Title I	-0.08	-0.05	-0.08	-0.08	-0.06	0.14*	0.13	0.14*	0.14*	0.15*
Demographics										
Age		0.23*			0.21*		-0.20*			-0.16*
Gender		-0.08			-0.08		-0.01			-0.02
Latino		-0.05			-0.02		0.02			-0.02
Other Minority		-0.05			-0.06		0.03			0.04
Moderate		-0.09			-0.09		0.06			0.05
Conservative		-0.29*			-0.29*		0.19*			0.18*
Religiosity		0.09			0.09		0.05			0.03
Values/Ideologies										
SJ				0.13	0.16*				-0.15*	-0.18*
PWE				-0.22*	-0.11				0.26**	0.18*
R2	0.02	0.13*	.02	.07*	.16**	0.02	0.09	0.02	0.10	0.14*
Change R2		0.11		.05			0.07*		0.08**	

Note. All regions (Bay Area, Valley, Coast, San Diego) were dummy coded (1), with the largest region, Los Angeles, serving as the reference category (0). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Gender: Female = 0, Male = 1. Latinx and Other Minority (all Minority and biracial categories other than Latinx) were dummy coded (1), with the largest racial/ethnic group, White, serving as the reference category (0). MPV = Moderate Political Views; CPV = Conservative Political Views. Moderate and Conservative Political Views were dummy coded (1), with the majority category, Liberal, serving as the reference category (0). Religiosity choices ranged from 1 (Not at all) to 4 (Very). SJ = System Justification. PWE = Protestant Work Ethic. Higher scores represent greater endorsement of the construct on all continuous measures. See page 33 for more information on causal attribution difference scores. *$p < 0.05$, **$p < 0.01$.

Table 16

Multiple Regression Analyses Predicting Trait Attributions for the Middle Class

	Positive Traits Middle Class					Negative Traits Middle Class				
	Model 1		Model 2		Model 3	Model 1		Model 2		Model 3
	β	β	β	β	β	β	β	β	β	β
Covariates										
Bay Area	0.03	0.01	0.02	0.03	0.03	-0.05	-0.04	-0.04	-0.04	-0.05
Central Valley	-0.02	0.01	-0.02	0.00	0.03	-0.03	-0.05	-0.03	-0.05	-0.07
Central Coast	0.03	0.06	0.02	0.05	0.08	-0.02	-0.03	-0.01	-0.03	-0.04
San Diego	0.05	0.02	0.04	0.05	0.02	0.03	0.06	0.04	0.03	0.05
Title I	0.02	0.06	0.02	0.00	0.03	0.12	0.09	0.12	0.13*	0.12
Demographics										
Age		0.24*			0.22*		-0.14			-0.10
Gender		-0.08			-0.10		0.06			0.06
Latino		-0.04			-0.02		0.02			-0.02
Other Minority		-0.03			-0.03		0.01			0.02
Moderate		-0.10			-0.12		0.00			0.01
Conservative		-0.10			-0.16		-0.02			0.00
Religiosity		0.11			0.09		0.09			0.08
Values/Ideologies										
SJ				0.27**	0.27**				-0.25**	-0.26**
PWE				-0.10	-0.03				0.20*	0.16*
R2	0.003	0.08	0.003	0.07*	0.14*	0.02	0.04	0.02	0.10*	0.12*
Change R2		0.08		0.07			0.02		0.08	

Note. All regions (Bay Area, Valley, Coast, San Diego) were dummy coded (1), with the largest region, Los Angeles, serving as the reference category (0). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Gender: Female = 0, Male = 1. Latinx and Other Minority (all Minority and biracial categories other than Latinx) were dummy coded (1), with the largest racial/ethnic group, White, serving as the reference category (0). MPV = Moderate Political Views; CPV = Conservative Political Views. Moderate and Conservative Political Views were dummy coded (1), with the majority category, Liberal, serving as the reference category (0). Religiosity choices ranged from 1 (Not at all) to 4 (Very). SJ = System Justification. PWE = Protestant Work Ethic. Higher scores represent greater endorsement of the construct on all continuous measures. See page 33 for more information on causal attribution difference scores. *$p < 0.05$, **$p < 0.01$.

the poor. More specifically, older participants had higher positive trait attribution ratings and lower negative trait attribution ratings of the poor than the younger participants. The opposite trend was found for those who held conservative beliefs, such that conservative participants, as compared to liberal participants, had lower positive trait ratings and higher negative trait ratings of the poor.

Although it was not an independent variable of interest, it is important to note that a school's Title I status was statistically significant in the models for the negative trait attributions for the poor. Specifically, participants who worked at schools that receive Title I funding, as compared to those who worked at schools that did not receive that funding, had higher ratings of negative trait attributions for the poor.

Causal attributions for poverty. Difference scores for causal attribution domains were used in the regression models. Comparing all causal attribution regression models, no single independent variable (i.e., demographics, values and ideologies) significantly predicted all four causal attribution domains.

The locus ($F(14, 220) = 8.89$, $p < .001$) and controllability ($F(14, 220) = 9.89$, $p < .001$) models were both significant. Participants who held more moderate or conservative beliefs, as compared to those who held more liberal beliefs, more strongly endorsed internal (versus external) locus causes and internal (versus external) controllable causes. See Tables 17 and 18 for specific variable information. Further, participants who more strongly endorsed System Justification and the Protestant Work Ethic more strongly endorsed internal locus and internal controllability causes. This suggests that, in comparison to those who hold more liberal beliefs, those who hold more conservative or moderate beliefs believe that society operates as it should and if you work hard, you can be successful, and furthermore, that internal factors are a stronger

predictor of poverty than external factors. No other participant demographic variables significantly predicted participants' causal attributions. The final models for both the stability domain ($F(14, 220) = 0.96$, $p = .50$) and the uncontrollability domain ($F(14, 220) = 1.04$, $p = .41$) were not significant.

Overall, in terms of how elementary school teachers' demographics, values, and ideologies relate to their beliefs about poverty, findings suggest that participants age, political beliefs, and endorsement of System Justification and the Protestant Work Ethic were related to trait attributions for both the poor and middle class, as well as causal attributions for poverty.

Table 17

Hierarchical Regression Analyses Predicting Causal Attributions (Locus and Controllable Domains) for the Poor

	Locus (higher values = more internal)					**Controllable** (higher values = more internal)				
	Model 1		Model 2		Model 3	Model 1		Model 2		Model 3
	β	β	β	β	β	β	β	β	β	β
Covariates										
Bay Area	-0.14*	-0.11	-0.14*	-0.08	-0.08	-0.12	-0.09	-0.12	-0.05	-0.06
Central Valley	0.03	0.01	0.03	0.01	0.03	0.05	0.01	0.05	0.02	0.03
Central Coast	-0.14*	-0.06	-0.12	-0.05	-0.04	-0.14*	-0.05	-0.11	-0.05	-0.03
San Diego	0.01	0.08	0.01	0.03	0.05	-0.02	0.06	-0.02	0.01	0.04
Title I	0.05	0.05	0.06	0.02	0.03	0.01	0.01	0.02	-0.02	-0.02
Demographics										
Age		0.00			0.04		-0.02			0.03
Gender		0.16*			0.09		0.18**			0.11*
Latino		0.02			0.00		0.01			-0.02
Other Minority		0.00			0.03		0.01			0.05
Moderate		0.30**			0.23**		0.27**			0.20*
Conservative		0.47**			0.29**		0.49**			0.31**
Religiosity		-0.05			-0.15*		0.02			-0.08
Values/Ideologies										
SJ				0.24**	0.19*				0.22**	0.15*
PWE				0.40**	0.35**				0.45**	0.37**
R2	0.04	0.24**	0.04	0.29**	0.36**	0.03	0.27	0.03	0.31**	0.39**
Change R2		0.20		0.25			0.24		0.28	

Note. All regions (Bay Area, Valley, Coast, San Diego) were dummy coded (1), with the largest region, Los Angeles, serving as the reference category (0). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Gender: Female = 0, Male = 1. Latinx and Other Minority (all Minority and biracial categories other than Latinx) were dummy coded (1), with the largest racial/ethnic group, White, serving as the reference category (0). MPV = Moderate Political Views; CPV = Conservative Political Views. Moderate and Conservative Political Views were dummy coded (1), with the majority category, Liberal, serving as the reference category (0). Religiosity choices ranged from 1 (Not at all) to 4 (Very). SJ = System Justification. PWE = Protestant Work Ethic. Higher scores represent greater endorsement of the construct on all continuous measures. See page 33 for more information on causal attribution difference scores. *$p < 0.05$, **$p < 0.01$.

Table 18

Hierarchical Regression Analyses Predicting Causal Attributions (Stability and Uncontrollable Domains) for the Poor

	Stability (higher values = more stable)					**Uncontrollable** (higher values = more internal)				
	Model 1		Model 2		Model 3	Model 1		Model 2		Model 3
	β	β	β	β	β	β	β	β	β	β
Covariates										
Bay Area	-0.06	-0.05	-0.06	-0.04	-0.03	-0.09	-0.09	-0.10	-0.08	-0.08
Central Valley	0.11	0.09	0.11	0.11	0.10	-0.01	0.00	-0.01	-0.01	0.01
Central Coast	0.03	0.04	0.02	0.04	0.05	-0.06	-0.05	-0.06	-0.04	-0.04
San Diego	0.04	0.06	0.04	0.05	0.05	0.04	0.04	0.04	0.05	0.04
Title I	-0.01	0.02	-0.01	-0.03	0.00	0.07	0.07	0.07	0.06	0.06
Demographics										
Age		-0.03			-0.01		0.02			0.02
Gender		-0.04			-0.06		0.04			0.02
Latino		-0.04			-0.04		0.01			0.01
Other Minority		-0.02			-0.01		-0.02			-0.02
Moderate		0.04			0.02		0.13			0.11
Conservative		0.17*			0.11		0.12			0.06
Religiosity		-0.04			-0.07		-0.14			-0.16*
Values/Ideologies										
SJ				0.09	0.09				0.11	0.12
PWE				0.11	0.11				0.03	0.06
R2	0.02	0.04	0.02	0.04	0.06	0.02	0.05	0.02	0.04	0.06
Change R2		0.02		0.02			0.03		0.01	

Note. All regions (Bay Area, Valley, Coast, San Diego) were dummy coded (1), with the largest region, Los Angeles, serving as the reference category (0). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Gender: Female = 0, Male = 1. Latinx and Other Minority (all Minority and biracial categories other than Latinx) were dummy coded (1), with the largest racial/ethnic group, White, serving as the reference category (0). MPV = Moderate Political Views; CPV = Conservative Political Views. Moderate and Conservative Political Views were dummy coded (1), with the majority category, Liberal, serving as the reference category (0). Religiosity choices ranged from 1 (Not at all) to 4 (Very). SJ = System Justification. PWE = Protestant Work Ethic. Higher scores represent greater endorsement of the construct on all continuous measures. See page 33 for more information on causal attribution difference scores. *$p < 0.05$, **$p < 0.01$.

Research Question 2: How does a student's social class, race/ethnicity, and gender affect a teachers' assessment of his or her writing?

Writing score analyses. Factorial ANCOVAs were used to assess differences in writing scores based on students' social class, race/ethnicity, and gender and the interactions between these variables (Table 19). Covariates included the California region where participants' schools were located, a variable indicating whether or not the school received Title I funding, and a manipulation check variable, which indicated whether or not participants correctly identified all three of the student demographics (i.e., social class, gender, and Minority or White) on the manipulation check. The results of the manipulation check warrant a cautious interpretation of the following analyses, as participants' accuracy in identifying students' race/ethnicity varied between the twelve different student profiles.

Organization and focus score. The interaction between social class, gender, and race/ethnicity was not significant for the organization and focus score, $F(1, 227) = 0.13$, $p = .72$. However, there was a statistically significant two-way interaction between social class and race/ethnicity, $F(1, 227) = 13.48$, $p < .001$, and both of the simple main effects of social class among White students ($F(1, 227) = 5.21$, $p = .02$) and Minority students ($F(1, 227 = 10.50$, $p = .001$) were significant. In interpreting the pairwise comparisons, p-values were adjusted using a Bonferonni adjustment. Interestingly, poor White students' organization and focus scores were significantly higher compared to the middle class White students' scores ($M = 4.43$, $SE = .09$; $M = 4.14$, $SE = .09$ for poor and middle students' scores respectively), $p = .02$. The pattern of results was in the opposite direction for poor and middle class Minority students. The organization and focus score for poor Minority students ($M = 4.02$, $SE = .06$) was significantly lower than for middle class Minority students ($M = 4.31$, $SE = .07$), $p = .001$.

Finally, the simple main effect of race and ethnicity on organization and focus scores was significant for poor ($F(1, 227) = 13.27$, $p < .001$), but not middle class ($F(2, 227) = 2.36$, $p = .13$) students. Poor White students ($M = 4.43$, $SE = .09$) were graded significantly higher than Minority students ($M = 4.02$, $SE = .06$), $p < .001$.

Elaboration and details score. The interaction between social class, gender, and race/ethnicity was not significant for the elaboration and details score, $F(1, 227) = 0.42$, $p = .52$. There was a statistically significant two-way interaction between social class and race/ethnicity, $F(1, 227) = 5.95$, $p = .02$. The simple main effect of social class on elaboration and details was statistically significant for White students ($F(1, 227) = 5.11$, $p = .03$), but not for Minority students ($F(1, 227 = 1.23$, $p = .27$). In interpreting the pairwise comparisons, p-values were adjusted using a Bonferonni adjustment. The mean elaboration and details score for poor White students was 4.08 ($SE = .11$), which was significantly higher than that of middle class White students ($M = 3.73$, $SE = .12$), $p = .03$. There was also a simple main effect of race and ethnicity on elaboration and details scores for middle class ($F(1, 227) = 4.65$, $p = .03$), but not for poor ($F(1, 227) = 1.56$, $p = .21$) students. The mean score for middle class White students ($M = 3.73$, $SE = .12$) was significantly lower than the score for middle class Minority students ($M = 4.03$, $SE = .08$), $p = .03$. There were not any statistically significant differences between the elaboration and details score of the poor Minority students ($M = 3.91$, $SE = .08$) and the scores of the other three groups.

Conventions score. The higher-order interaction between social class, gender, and race/ethnicity, $F(1, 225) = 0.87$, $p = .35$, was not significant for conventions. Although the two-way interaction between social class and gender was significant, $F(1, 225) = 3.90$, $p = .05$, the simple main effects for social class and gender were not significant.

Total writing score. The higher-order interaction between social class, gender, and race/ethnicity was not significant for the total writing score ($F(1, 225) = 0.30$, $p = .59$. However, there was a statistically significant two-way interaction between social class and race/ethnicity, $F(1, 225) = 8.20$, $p = .01$. The simple main effect of social class on the total writing score was statistically significant for White students ($F(1, 225) = 4.43$, $p = .04$) and Minority students ($F(1, 225) = 4.34$, $p = .04$). The total score for poor White students ($M = 11.92$, $SE = .22$) was higher than that for middle class White students ($M = 11.26$, $SE = .24$), $p = .04$. Additionally, the total score for poor Minority students ($M = 11.36$, $SE = .15$) was lower than for middle class Minority students ($M = 11.83$, $SE = .16$), $p = .04$.

There was also a simple main effect of race and ethnicity on total writing scores for both poor ($F(1, 225) = 4.14$, $p = .04$) and middle class ($F(2, 225) = 3.98$, $p = .05$) students. Poor White students ($M = 11.92$, $SE = .22$) received significantly higher total scores as compared with poor Minority students ($M = 11.36$, $SE = .15$), $p = .04$. Finally, the mean score for middle class White students ($M = 11.26$, $SE = .24$) was significantly lower than for middle class Minority students ($M = 11.83$, $SE = .16$), $p = .05$.

Report card recommendation. A logistic regression was conducted to determine whether student demographics (i.e., social class, gender, race/ethnicity) predicted how participants' rated students writing level on a report card (i.e., below grade level or at/above grade level). Covariates included the California region where participant schools were located, a variable indicating whether or not the school received Title I funding, and a manipulation check variable, which indicated whether or not participants correctly identified all three of the student demographics (i.e., social class, gender, and Minority or White) on the manipulation check. The regression model was not significant, $\chi^2(13) = 16.74$, $p = .21$ (Table in Appendix E).

Table 19

Factorial ANCOVAs for Writing Score Outcomes

	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
Variables	*df*	*F*	Partial η^2	*p*	*df*	*F*	Partial η^2	*p*	*df*	*F*	Partial η^2	*p*	*df*	*F*	Partial η^2	*Sig.*
Region	1	1.95	0.01	0.16	1	0.00	0.00	0.98	1	0.79	0.00	0.38	1	0.03	0.00	0.87
Title I	1	0.57	0.00	0.45	1	0.01	0.00	0.93	1	0.22	0.00	0.64	1	0.02	0.00	0.90
Manipulation Check	1	4.13	0.02	0.04	1	2.51	0.01	0.12	1	0.24	0.00	0.63	1	3.44	0.02	0.07
Social Class	1	0.00	0.00	0.98	1	1.49	0.01	0.22	1	0.04	0.00	0.84	1	0.27	0.00	0.60
Gender	1	0.01	0.00	0.93	1	0.78	0.00	0.38	1	0.24	0.00	0.62	1	0.46	0.00	0.50
Race/Ethnicity	1	2.04	0.01	0.15	1	0.45	0.00	0.50	1	0.32	0.00	0.57	1	0.00	0.00	0.98
Social Class*Gender	1	1.16	0.01	0.28	1	0.41	0.00	0.52	1	3.90	0.02	0.05*	1	2.76	0.01	0.10
Social Class*Race/Ethnicity	1	13.48	0.06	0.00**	1	5.95	0.03	0.02*	1	0.23	0.00	0.63	1	8.20	0.04	0.01*
Gender*Race/Ethnicity	1	0.07	0.00	0.79	1	0.47	0.00	0.50	1	0.12	0.00	0.73	1	0.08	0.00	0.78
Social Class*Gender*Race/Ethnicity	1	0.13	0.00	0.72	1	0.42	0.00	0.52	1	0.87	0.00	0.35	1	0.30	0.00	0.59

Note. Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. *$p \leq 0.05$, **$p \leq 0.01$.

Research Question 3: How do teachers' beliefs about poverty moderate their assessment of student writing?

Writing score analyses. Factorial ANCOVAs were used to assess differences in writing scores based on students' social class, gender, race/ethnicity and the interactions between these variables. The four trait attributions (endorsement of positive and negative traits of the poor and middle class) and causal attribution domains (using the difference scores) were included as moderators of the link between student demographic and writing scores. A total of eight models were run to test for moderation of participants' beliefs about the poor and middle class and causal attributions for poverty (see Tables in Appendix F). Covariates included the California region where participant schools were located, a variable indicating whether or not the school received Title I funding, and a manipulation check variable, which indicated whether or not participants correctly identified all three of the student demographics (i.e., social class, gender, and Minority or White) on the manipulation check. To adjust for the number of tests conducted, an adjusted p-value was used (i.e., standard p-value of .05 ÷ 8 comparisons = adjusted p-value of .006). As shown in the Tables in Appendix F, no consistent or systematic evidence of moderation emerged across this set of analyses.

Report card recommendation. Logistic regression analyses were conducted to determine whether student demographics (i.e., social class, gender, race/ethnicity) and beliefs about poverty predicted how participants' rated students writing level on a report card (i.e., below grade level or at/above grade level). To adjust for the number of tests conducted, an adjusted p-value was used (i.e., standard p-value of .05 ÷ 8 comparisons = adjusted p-value of .006). No consistent or systematic evidence of moderation emerged across this set of analyses.

Discussion

In a time when almost half of elementary school-aged students in the United States live in poor or low-income households (Koball & Jiang, 2018), it is imperative to understand the beliefs and biases of adults who interact with them on an almost daily basis: their classroom teachers. Prior research has shown that some American adults hold negative views of those living in poverty and that such beliefs can impact their decisions towards supporting those in need (Bullock et al., 2003), making this an important topic to explore in educational settings. As such, this study sought to better understand elementary school teachers' beliefs about individuals living in poverty and how possible biases toward poor individuals may impact teachers' assessment of student writing.

This study was able to capture the thinking of approximately 300 fifth grade teachers throughout California, a state where one in five school-aged children live in poverty and approximately one third live in low-income households (National Kids Count, 2018b). Overall, teachers endorsed more positive and fewer negative traits for both the poor and middle class and had higher endorsements of causes of poverty that were outside of an individual's direct control (e.g., lack of aptitude, discrimination) than causes within one's control (e.g., bad strategy). These findings suggest a positive view towards poor individuals and an understanding that poverty is not always caused by individual. However, when looking at what predicted beliefs about poverty, the variability in teachers' political ideologies presented an interesting area to further examine. Specifically, California is often known as being a liberal and Democratic state (McGhee & Krimm, 2012), but less than half of the teachers in this study stated that they held liberal views (46%) and the rest identified as holding moderate (30%) or conservative (24%) views. Almost a quarter of the sample identified as conservative, which is a demographic

characteristic has been associated with adults' beliefs about poverty in a number of other studies (see for example Cozzarelli et al., 2001; Zucker & Weiner, 1993).

The conservative views of teachers in this sample were highly correlated with higher endorsements of the System Justification ideology, indicating a belief that society is fair and just, and higher endorsements of the Protestant Work Ethic, suggesting a belief that if you work hard, you can get ahead. A strong endorsement of System Justification and the Protestant Work Ethic echo the sentiment of the American Dream – anything is possible if you work hard enough for it. While this kind of thinking can instill hope and is a common credo in education, certain societal barriers (e.g., lack of available decent paying jobs) can make it extremely difficult to overcome poverty (Gorski, 2012). This is especially true during this current era in American history, when the United States is experiencing one of the highest rates of economic inequality among all industrialized countries (Stiglitz, 2012). Although it is an educator's job to encourage students to work hard and strive for success, it is equally as important for educators to understand the structural obstacles that impact the life experiences of many poor and low-income students and their families.

Conservative beliefs and the endorsement of System Justification ideology and Protestant Work Ethic values were all significant predictors of teachers' beliefs about poverty. Their significance came up systematically across the trait and causal attribution analyses in a way that was not seen with any of the other teacher demographic variables (e.g., race/ethnicity, gender). More specifically, and possibly most importantly, teachers with conservative views, as compared to those with liberal views, endorsed fewer positive traits and more negative traits of poor people and had higher endorsements of internal and controllable causes of poverty. These findings align both with prior research (Cozzarelli et al., 2001; Zucker & Weiner, 1993) and with my

hypotheses for the first research question, such that the pattern of conservative teachers' endorsement of trait and causal attributions mirrors that of other conservative adults in society. What is unique about this group of American adults, however, is their direct and daily interaction with children who may be from poor or low-income families. Children learn to think of themselves as others view them (Cole et al., 2001) and it is important to understand how teachers' beliefs about poor people may be conveyed in implicit messages they send to their students. Further, Weiner and colleagues (2010) emphasized that what individuals believe to be the causes of poverty, whether they are correct or not, can influence their desire to provide assistance to those in need. If such beliefs impact distal decisions like support (or lack thereof) of policies (Bullock et al., 2003), how might these beliefs impact the everyday classroom practices of teachers?

Although the moderation analyses in this study did not reveal any significant findings pertaining to the impact of beliefs about poverty on the assessment of student writing (and therefore my hypotheses for the third research question were not supported), findings did reveal significant differences between the grades teachers' assigned to writing. It is important to uncover what beliefs may be driving those differences. For example, the endorsement of System Justification and the Protestant Work Ethic were significant predictors of teachers' beliefs about poverty and their influence on teachers' practices should be considered. These ideologies and values center around "meritocratic ideology", which is described by Jost, Pelham, Sheldon, and Ni Sullivan (2003) as an ideology that justifies "social and economic outcomes as fair and deserved" and often accompanies "strong values for achievement and success" (p. 33). Beliefs about work ethics and what is fair and just in society can be included as moderators in future analyses, as they may play a role in how a teacher views a students' effort and potential for

success. Additionally, using a person-centered instead of a variable-centered (as was used in the analyses in this study) approach can also be used to try to understand differences in grading. For example, grouping participants into clusters based on configurations of System Justification endorsement, Protestant Work Ethic endorsement, and political ideology may shed light on how different compositions of belief systems impact assessment practices.

In terms of the differences found on the assessment of student writing, the findings must be interpreted with caution. Although the results indicated a significant interaction between students' social class and race/ethnicity, the manipulation check revealed that teachers did not always view their fictitious student as being of the intended race/ethnicity. This seemed to be especially true when teachers received a student profile that was a counter-narrative to what they may be used to seeing in California public schools. For example, when teachers' misidentified the race/ethnicity of what was intended to be a poor White student, they most often indicated that they thought the student was Latinx. This same trend was also found with poor African American students, who were most often miscategorized as Latinx students. This misidentification may be due to the current demographic composition in California, in which 54% of public school students are Latinx (California Department of Education, 2018b) and almost 60% of Latinx children under 18 live in low-income homes (National Kids Count, 2018a). Although the manipulation check was not the main focus of the study, the themes that arose from the check highlight the importance of further examining teachers' social class assumptions about students from different racial/ethnic groups. Researchers must also continue to consider the demographic context when studying teachers and students and conduct similar studies in other regions throughout the United States.

To account for the results of the manipulation check, the accurate identification of all three student demographics (i.e., social class, gender, race/ethnicity) was controlled for in analyses. In terms of the organization and focus writing scores, poor Minority students received significantly lower scores than all other groups of students (supporting part of my hypothesis for the second research question). This aligns with historical evidence that poor Minority individuals are often some of the most oppressed and discriminated against in society. In California, the bias found in this study is especially troubling, as over 50% of African American children and almost 60% of Latinx children live in poor and low-income homes in this state (National Kids Count, 2018a) and such biases may impact their educational experiences.

Surprisingly, however, in the organization and focus, elaboration and details, and total writing scores, poor White students received higher grades than middle class White students. In fact, poor White students received higher grades than middle class White and Minority students and poor Minority students. Middle class White students actually received the lowest total writing scores (counter to one of the second research question's hypotheses). This is reminiscent of the "positive feedback bias" that Harber and colleagues (2012) found in high school teachers' assessment of student writing. Perhaps in this study, teachers thought that in the case of the White students, the poor students "did well for poor students." Interestingly, this "positive feedback bias" trend was not seen in the grading of the Minority students' writing. Also surprising was the lack of findings related to students' gender. Prior studies have found gender differences in teachers' expectations and assessments of student work (Cornwell et al., 2013; Jussim & Eccles, 1992; Tiedemann, 2000), but such differences were not seen in this study.

Although the writing assessment findings warrant a cautious interpretation, it is important to recognize that significant differences were found in teachers' grading of student writing. We

cannot be certain as to the exact student demographics each teacher was imagining when assessing the work, but we do know that groups of students were graded differently. A half point or point lower of a score on a piece of writing might not seem that harmful, but this small disparity could mean the difference between being labeled as an average "C" student (11 out of 15 points) or an above average "B" student (12 out of 15 points). Further, these significant differences were found at the intersection of two demographic classifications (i.e., students' social class and race/ethnicity), reminding us of the value of using an intersectional approach when studying teachers' practices. Such differences in grading would have gone unseen if the focus was solely on students' social class.

Although understanding teachers' beliefs about poverty and the impact of such beliefs on assessment practices were the main foci of the study, the results highlight the complexity of studying social class biases. Social class is not unidimensional, but rather an intricate combination of identities, labels, and experiences. Understanding teachers' social class biases cannot be fully understood in one study. Further, the intersection of teacher's own social class, gender, and race/ethnicity and the influence of that intersection on their perceptions and beliefs about others is an unexplored and complicated relationship that deserves attention. While the findings from this study are an important step in the right direction in terms of understanding teachers' beliefs and practices, the complex construct of social class and its biases must be further studied.

Next Steps

The purpose of this study was not to cast teachers in a negative light, but rather to recognize that common beliefs among American adults can also be found in the teaching population. Once researchers and educators better understand these beliefs about poverty and the

connections to classroom practices, time and resources can be devoted to developing anti-bias curriculum specifically focused on social class (and the intersection between social class, gender, and race/ethnicity) that can be utilized in teacher professional development settings. As research shows, teachers want to support all of their students' learning and help their students succeed (Johnson et al., 2012). In order to do this, teachers should be encouraged and guided on how to reflect on their own beliefs, values, and ideologies and how these beliefs may present themselves in their classroom practices. Pre-service teacher education programs, as well as in-service professional development settings, should focus on supporting teachers in examining and addressing their own biases.

Limitations and Future Directions

While there were many strengths in this study, it is important to also note the caveats. This was a novel study in that it used manipulated writing on an online platform to assess possible biases in an understudied population (i.e., elementary school teachers). While the far-reaching scope of an online assessment allowed for a better understanding of how teachers across the state assess student work, using this type of assessment also presented some limitations. First, this study presented teachers with a one-time assessment, which only allowed for a quick snapshot of a teacher's practice. Biases can present themselves in a number of different ways in a classroom setting, from the types of academic expectations teachers have for their students to the ways they enforce discipline (Gershenson et al., 2015; Skiba, et al., 20011) and may present themselves in different ways over time. Looking at teachers' social class biases and examining them using an intersectional approach in authentic settings over time is important. Future studies should incorporate different data gathering techniques, such as classroom observations and document analysis of real student work and teachers' assessment, over time to allow researchers

to better understand the nuances of such biases. Further, special attention should be paid to measuring how teachers' beliefs about poor children may differ from (or be similar to) their beliefs about poor adults.

Second, many educators and researchers would agree that assessing student writing can be somewhat subjective and not just because of a student's demographics. What one teacher thinks deserves a high score on a rubric might get a lower score from another teacher, just because of their personal opinions about the quality of the piece of writing. Having a rubric with very clear guidelines that has been tested out with a number of teachers is especially important when trying to make the assessment of writing less subjective. Although small groups of fifth grade teachers were consulted and provided valuable feedback about the rubric used in this study, allowing for multiple rounds of feedback from teachers in different schools could produce a rubric with even clearer guidelines. Additionally, providing example student papers that represent expectations at each level of the rubric (often referred to as "anchor papers") could help norm teachers about grading expectations, such as on what a "5" in organization and focus is expected to look like. While these suggestions are meant to help get teachers aligned in their assessment of student work and may seem counterproductive for a study like this, clear rubrics and examples may reduce some of the additional noise found in grading writing and make biased grading even more apparent. It is also important to note that the current rubric allowed for a total maximum score of 15 points. While this is in line with the amount of points often seen in elementary school writing assessments, it limited the amount of variability in the potential number of points a teacher could assign to a piece of writing. Future studies should continue to explore how to use other types of authentic elementary school assessments that would allow for a more detailed view into how biases play out in teachers' grading of student work.

A third caveat is that the manipulation of student demographics in the writing did not work as anticipated, with some manipulated details working better than others. More specifically, while many participants were able to correctly identify the students' gender and the social class, there was a lower accuracy in their identification of the students' race/ethnicity. Student names were used to denote race and ethnicity and although the name was used three times throughout the short piece of writing, it did not appear to provide a strong enough association for participants. The passage of time may have contributed to the misidentification of the student's race/ethnicity, as teachers first read the manipulated piece, then read the piece they were asked to grade, then filled out the detailed rubric, then answered the two questions about report card and future English class recommendations, and then were finally asked to answer the manipulation check questions. While this order was intentional and provided an ecologically sound approach, it created a gap in time between the manipulation and the manipulation check. Even so, the unexpected findings from the manipulation check provided an interesting look into teachers' perceptions about the fictitious students. Future studies should continue to explore how to present teachers with student demographic information in authentic ways that would not alert participants to the purpose of the study.

Finally, although the sample of teachers spanned across the state and across different demographic groups, the size did not allow for more complex analyses and may have limited the ability to see significant differences in teachers' grading of student work and in how their beliefs moderated their assessment of student work. Recruiting fifth grade teachers for this study proved to be more difficult than anticipated, with low response rates throughout multiple districts and counties. The difficulty in recruiting teachers may have been due to elementary school teachers' limited free time. Many do not receive a prep period during the school day and others have to

supervise students during recess or lunch. Although incentives were offered to teachers, busy days at school may have prevented them from taking the time to participate in the study. In order to truly understand teachers' beliefs and biases, it is important to find ways to recruit large samples of teachers. This may be through securing funding for larger incentives or utilizing data collection techniques that allow for meaningful data gathering while not requiring too much time from participants.

Conclusion

As Pajares (1992) wrote, "Few would argue…that understanding the belief structures of teachers…is essential to improving their professional preparation and teaching practices" (p. 307). The results of this study are a valuable addition to the current literature on teacher beliefs and can help educators and researchers obtain a better understanding of teachers' reasoning about poverty. This has important implications not only for anti-bias professional development, but, more importantly, for ensuring that teachers are meeting the needs of all students.

Appendix A

Email Recruitment Letter

UNIVERSITY OF CALIFORNIA LOS ANGELES

Hi!
I am writing to you today to invite you to participate in a UCLA educational research study focused on better understanding who teachers are and how they assess student writing. As a former elementary school teacher and current doctoral student working under the advisement of Dr. Rashmita Mistry at UCLA, I am invested in finding ways to support teachers in elementary schools throughout California and am excited to invite you to participate. The study consists of two parts: assessing a piece of fifth grade student writing online and completing an online survey. Each part should take about 15-20 minutes. The data will not be shared publicly, except in reports of group findings, and every effort will be made to keep any information that is obtained in connection with this study confidential. Because teachers will be asked to assess a piece of fifth grade writing, **we are currently recruiting fifth grade teachers or teachers who have taught fifth grade in the past five years**.

If you are a fifth grade teacher or have taught fifth grade in the past five years and would like to participate, please click on the following:
Follow this link to the Survey: (LINK PROVIDED)
Or copy and paste the URL below into your internet browser: (URL PROVIDED)

Participants will receive a $15 Amazon Gift Card for participating in the first part of the study (the assessment of student writing). **Participants will receive a second $15 Amazon Gift Card and will be entered in a drawing for a $150 Amazon Gift Card** for participating in the second part of the study (online survey)**.** *Please note: Participation in the study is not required to participate in the raffle. Regardless of your decision to participate, you are able to enter the drawing for the $150 Amazon Gift Card**.** If you would like to participate in the raffle and not in the survey, please click on this link (LINK PROVIDED).*

Thank you for your time.

Appendix B

Study Debrief Sheet

University of California, Los Angeles
STUDY DEBRIEF SHEET

Thank you for your participation in our research study. I would like to tell you in more detail about the study you just participated in and to explain exactly what we were trying to study. Before I tell you about all the goals of this study, however, I want to explain why it is necessary in some kinds of studies to not tell people all about the purpose of the study before they begin. As you may know, scientific methods sometimes require that participants in research studies not be given complete information about the research until after the study is completed. Although we cannot always tell you everything before you begin your participation, we do want to tell you everything when the study is completed. We don't always tell people everything at the beginning of a study because we do not want to influence your responses. If we tell people what the purpose of the study is and what we predict about how they will react, then their reactions would not be a good indication of how they would react in everyday situations.

As a former elementary school teacher, I am invested in finding ways to support teachers in elementary schools throughout Los Angeles County. Over the past few decades, an important body of research has focused on the roles that teachers' beliefs and implicit biases play in the educational experiences of their students (see Bates & Glick, 2013; Gilliam, Maupin, Reyes, Accavitti, & Shic, 2016; Jussim & Eccles, 1992; Tiedemann, 2000). Although teachers want their students to be successful and strive to meet the educational needs of all students, many may be unaware that certain beliefs and biases can implicitly impact their practices and interactions in the classroom, resulting in differential treatment of students. Luckily, research studies like this one have the potential to help researchers and educators better understand how teachers think about their students and where biases show up in their classroom practices, more specifically, in their grading of student work. As stated in the recruitment email, we are interested in better understanding who teachers are and how they assess student writing. However, although it was stated that we want to test out a new writing rubric, the actual focus of the study is to understand teachers' reasoning about poverty and how their beliefs may impact their assessment of student work. The student writing was created by researchers. Because we are trying to assess possible implicit biases, we thought it was important to not inform the participants that we are studying biases, as they may try to assess the student writing in a different way than they normally would which could impact the quality of the data. We are hoping that findings from this study can be used to help create anti-bias professional development as a way to help teachers meet the needs of all students. Thank you for engaging in this important work with us!

If other people knew the true purpose of the study, it might affect how they answer questions, so we are asking you not to share the information we just discussed.

Appendix C

Assessment of Student Writing

All teachers received two pieces of writing, but were only asked to assess the second piece of writing. For the first piece of writing (participants either received Example A or Example B on the following pages), details were manipulated to convey differences in social class, race/ethnicity, and gender, resulting in a total of 12 fictitious students. Student social class was denoted by the specific details included in the stories (as indicated by the bolded and underlined words in Example A and Example B). Student race/ethnicity was denoted by name, as listed below. Student gender will be denoted by name and pronoun in the story. All participants were then asked to grade the second piece of writing (Example C).

Table C

The Fictitious Student Profiles and Names Represented in the Manipulated Writing

	Poor	**Middle Class**
African American	Boy (Lamar) Girl (Keisha)	Boy (Lamar) Girl (Keisha)
Latinx	Boy (Jose) Girl (Alejandra)	Boy (Jose) Girl (Alejandra)
White	Boy (Grayson) Girl (Megan)	Boy (Grayson) Girl (Megan)

Example A

My favorite part of spring break

Here is my story about my favorite part of spring break. On Tuesday morning my mom asked "Are you ready, **(INSERT NAME)**". "Yes!!!" I yelled so loud. We were getting ready to get on the **shuttle by our hotel** to go to **DISNEYWORLD**! I couldn't wait! Me, my mom, my big brother, and my little sister were gonna go, but my dad couldn't go cuz he had to work. He always has to work and I miss him but he says he has to work so **we can live in a nice house and go on fun trips like this**.

As soon as we got there I ran to **Splash Mountain**. Thats my favorite **ride** at the park. Me and my brother and sister were fighting for the **front seat**. "I wanna get on first!" yelled my brother. "No me first" said my sister. I jumped on the **seat** when they werent looking. They were mad and they yelled at me. "Stop **(INSERT NAME IN CAPITAL LETTERS)**" shouted my brother. "**(INSERT GENDER)** always gets to go first," said my sister. My mom just said "shhhh" and I got to stay on. I love when you go so high up on the **ride** and you see the whole park. I always wanna put my hands up but I get scared. And then you go down so fast that your stomach hurts but its so fun. We got off the **ride** and my stomach growled and I felt so hungry I thought I was gonna die. **I usually eat a good breakfast in the mornings, but I was too excited that day. We went to one of those food stands and got hot dogs and juice.** I stuffed it all in my mouth so fast and asked if me and my brother could **go on Space Mountain** and my mom said be patient **(INSERT NAME)**. I was still hungry **so my mom gave me money to go get chips and fruit for all of us.** Then we **went on lots of rides**. Before we left we went **into one of the stores at the front of the park.** I really really wanted to get **these two really cool toys from Star Wars, but mom said I don't need two and pick the one I really wanted so I got the one that's Luke Skywaker. It is so cool.** And then we came home and went to bed. It was my favorite part of spring break.

Note. The bold style and underlining were not used in the versions the participants viewed. They are included here to show where the information differed to denote the social class, racial/ethnic, and gender differences.

Example B

My favorite part of spring break

Here is my story about my favorite part of spring break. On Tuesday morning my mom asked "Are you ready, **(INSERT NAME)**". "Yes!!!" I yelled so loud. We were getting ready to get on the **bus by our apartment** to go to **THE PARK**! I couldn't wait! Me, my mom, my big brother, and my little sister were gonna go, but my dad couldn't go cuz he had to work. He always has to work and I miss him but he says he has to work so **that someday we can live in our own apartment and not live with our grandma anymore**.

As soon as we got there I ran to **the swings**. Thats my favorite **thing** at the park. Me and my brother and sister were fighting for **the swing**. "I wanna get on first!" yelled my brother. "No me first" said my sister. I jumped on the **swing** when they werent looking. They were mad and they yelled at me. "Stop **(INSERT NAME IN CAPITAL LETTERS)**" shouted my brother. "**(INSERT GENDER)** always gets to go first," said my sister. My mom just said "shhhh" and I got to stay on. I love when you go so high up on the **swings** and you see the whole park. I always wanna put my hands up but I get scared. And then you go down so fast that your stomach hurts but its so fun. I got off the **swing** and my stomach growled and I felt so hungry I thought I was gonna die. **I usually eat breakfast at school, but we were on spring break. My mom opened her bag and got out sandwiches she made for us.** I stuffed it all in my mouth so fast and asked if me and my brother could **go play soccer** and my mom said be patient **(INSERT NAME)**. I was still hungry **but my mom didn't have any more food for us so she let us split the rest of her sandwich**. Then we **played lots of soccer**. Before we left we went **to one of the ice cream trucks in the parking lot**. I really really wanted to get **a ice cream sunday with sprinkles, but mom said that's too expensive and we couldn't afford it and to find something cheaper so I just got a popsicle. It was so good.** And then we came home and went to bed. It was my favorite part of spring break.

Note. The bold style and underlining were not used in the versions the participants viewed. They are included here to show where the information differed to denote the social class, racial/ethnic, and gender differences.

Example C

A day I had to be brave

Here is a day that I had to be brave. It was my first day of third grade and I had to go to a new school. I was SO SCARED and I didn't want to go. My mom said "you have to go because you need to learn new things and make new friends". I yelled "NO I DON'T CARE ABOUT LEARNING OR FRIENDS"! She gave me a little sad face but she made me go anyway! On our way to school my eyes started to get watery and my brother said "stop being a baby". I yelled at him "BE QUIET"! My mom shook her head at us. I still remember I was wearing my favorite red shirt that day. We got to the school and it was so big and more scary than a haunted house. I started to cry so hard my stomak hurt. I hate that feeling. Its like your gonna be sick. My mom gave me a hug and said "its okay" but I didn't think it was. I didn't want to let go of her hand. I put my face into her stomach and cried more.

I think my brother finally started to feel a little bad for me. He put his arm around me and said hed take me to my class. My mom and little sister gave me big hugs and said "good luck". We walked up the stairs and through the door and down the long scary halls. We looked on a piece of paper my mom gave me to see what number was my classroom. My brother finally found it. He yelled "here it is"! I shut my eyes really hard and didn't want to let go of his hand. A nice old lady came up to me and bent down and asked what my name was. I told her and she got the nicest smile on her face. She said "welcome to our school"! She was my new teacher! I think she could tell I was crying because she told me to go get a drink of water from the fountin. She said she had some nice people for me to meet. My stomak stopped hurting. I started to smile. My brother gave me a big hug and said be brave. I said I would. He had to go to class so I had to go by myself to get water. I saw a tall man on the way to the fountin and I think he was the principle. I got water and went back to class and met my new friends. At first I was scared, but then I was brave. It was a fun day!

Rubric Used to Assess Writing

AREA OF WRITING	SCORES								
	5	**4.5**	**4**	**3.5**	**3**	**2.5**	**2**	**1.5**	**1**
Organization & Focus	The writer maintains a clear and strong organization and/or focus throughout the story.		The writer maintains an adequate organization and/or focus throughout the story.		The writer demonstrates some organization and/or focus throughout the story.		The writer demonstrates little organization and/or focus throughout the story.		The writer demonstrates no organization or focus in the story.
	Please provide feedback to the writer about the organization and focus used in the story.								
Elaboration & Details	The writer uses effective elaboration and relevant details throughout the story.		The writer uses adequate elaboration and some relevant details throughout the story.		The writer uses some elaboration and details throughout the story.		The writer uses little elaboration and few details throughout the story.		The writer does not elaborate or use details in the story.
	Please provide feedback to the writer about the elaboration and details used in the story.								
Conventions	The writer demonstrates a strong command of conventions in this story (consistent use of correct grammar, spelling, sentence formation, punctuation, and capitalization).		The writer demonstrates an adequate command of conventions in this story (adequate use of correct grammar, spelling, sentence formation, punctuation, and capitalization).		The writer demonstrates a partial command of conventions in this story (limited use of correct grammar, spelling, sentence formation, punctuation, and capitalization).		The writer demonstrates little command of conventions in this story (little use of correct grammar, spelling, sentence formation, punctuation, and capitalization).		The writer demonstrates no command of conventions in this story (no use of correct grammar, spelling, sentence formation, punctuation, and capitalization).
	Please provide feedback to the writer about the conventions used in the story.								

Follow-Up Questions to Assessment of Writing

Directions: Imagine that it is the end of the school year and this student was just placed in your fifth grade class. Answer the questions below.

1. You are getting ready to write out report cards. Based on the writing that you saw, this student is performing:
    a. below a fifth grade level and needs extra support in writing in order to meet fifth grade expectations.
    b. at a fifth grade level and meeting grade-level expectations.
    c. above a fifth grade level and needs to be challenged.

2. You are asked to help place this student in a middle school English class for the next school year. Based on this student's writing, what English class would you recommend this student be placed in?
    a. A remedial English class
    b. An on grade-level English class
    c. An Honors English class

Appendix D

Demographics Questions included in Part 1

Q16.1 You're almost done! To help us better understand who our participants are, please take a moment to answer these final questions.

Q16.2 What is your gender?

- ○ Male
- ○ Female
- ○ Other

Q16.3 How old are you?

- ○ Under 25 years old
- ○ 25 - 29 years old
- ○ 30-39 years old
- ○ 40-49 years old
- ○ 50-59 years old
- ○ 60 years or older

Q16.4 Please tell us more about your current fifth grade position.

- ○ I teach in a general education 5th grade classroom (all subjects taught).
- ○ Other (please describe) _____

Q16.5 Including this year, how many years have you been teaching?

- ○ This is my first year
- ○ 2 years
- ○ 3 - 5 years
- ○ 6 - 10 years
- ○ 11 - 15 years
- ○ 16 - 20 years
- ○ More than 20 years

Q16.6 Including this year, how many years have you been teaching at this school?

- ○ This is my first year
- ○ 2 years
- ○ 3 - 5 years
- ○ 6 - 10 years
- ○ 11 - 15 years
- ○ 16 - 20 years
- ○ More than 20 years

Q16.7 What kind of teaching credential do you have? Check all that apply.

- ☐ Multiple Subject
- ☐ Single Subject
- ☐ Special Education
- ☐ Other _____

Q16.8 What is your highest level of completed education?

- ○ Two-year college graduate (Associate's Degree)
- ○ Four-year college graduate (Bachelor's Degree)
- ○ Some graduate credits
- ○ Master's Degree completed
- ○ Credit beyond Master's Degree
- ○ Ph.D. or Ed.D. completed

Q16.9 With which racial or ethnic group(s) do you most identify?

- ☐ American Indian or Alaska Native
- ☐ East Asian
- ☐ South Asian
- ☐ Southeast Asian
- ☐ Black or African American
- ☐ Hispanic or Latino/a
- ☐ Pacific Islander
- ☐ White
- ☐ Other

Survey and Demographics Questions Included in Part 2

First, we are interested in hearing your thoughts about teaching.

Q19.2 Which statement comes closer to your view (even if neither is exactly right)? [a]

- ○ Good teachers can lead all students to learn, no matter the students' backgrounds or needs.
- ○ Students' backgrounds and needs make it too hard for even good teachers to help all students learn.

Q19.3 Which statement comes closer to your view (even if neither is exactly right)? [a]

- ○ The effort students make is mainly determined by the level of motivation they bring to the classroom.
- ○ The effort students make is mainly determined by what teachers do to motivate them once they get there.

Q19.4 Which statement comes closer to your view (even if neither is exactly right)? [a]

- ○ Parental support is essential to a student's academic success.
- ○ Students can succeed even without a lot of support from parents.

Q19.5 What is the most difficult thing about being a teacher? Use numbers to rank order what is most difficult (1), the next most difficult (2), and so on. If it does not apply to you, leave it blank. [a]

_____ Lack of support from administrators

_____ Lack of support from parents

_____ Lack of effort from students

_____ Too many students with discipline and behavior issues

_____ Low pay and/or lack of opportunity for advancement

_____ Unreasonable pressure to raise student achievement

Q19.6 Please indicate how confident you are in the following statements. [a]

	Not at all confident	Slightly confident	Somewhat confident	Pretty confident	Very confident
My students will learn the skills and knowledge that they are supposed to by the end of the school year.	○	○	○	○	○
My students, given the right support, can go to college if they choose.	○	○	○	○	○

Q20.1 Next, we are interested in hearing your ideas about our society, how it works, and the people living in it.

Q20.2 Please indicate the degree to which you agree or disagree with each of the following statements.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
In general, you find society to be fair.	○	○	○	○	○	○	○
In general, the American political system operates as it should.	○	○	○	○	○	○	○
American society needs to be radically restructured.	○	○	○	○	○	○	○
The United States is the best country in the world to live in.	○	○	○	○	○	○	○
Most social policies serve the greater good.	○	○	○	○	○	○	○
Everyone has a fair shot at wealth and happiness.	○	○	○	○	○	○	○
Our society is getting worse every year.	○	○	○	○	○	○	○
Society is set up so that people usually get what they deserve.	○	○	○	○	○	○	○

Q20.3 Think about people who are poor. How many poor people are...

	None	A few	A moderate amount	A lot	All
Smart	○	○	○	○	○
Hardworking	○	○	○	○	○
Dishonest	○	○	○	○	○
Good	○	○	○	○	○
Lazy	○	○	○	○	○
Dirty	○	○	○	○	○
Dumb	○	○	○	○	○
Honest	○	○	○	○	○
Clean	○	○	○	○	○
Rude	○	○	○	○	○
Polite	○	○	○	○	○
Bad	○	○	○	○	○

Q20.4 Please indicate the degree to which you agree or disagree with each of the following statements.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Most people spend too much time in unprofitable amusements.	○	○	○	○	○	○	○
Our society would have fewer problems if people had less leisure time.	○	○	○	○	○	○	○
Money acquired easily is usually spent unwisely.	○	○	○	○	○	○	○
Most people who don’t succeed in life are just plain lazy.	○	○	○	○	○	○	○
Anyone who is able and willing to work hard has a good chance of succeeding.	○	○	○	○	○	○	○

People who fail at a job have usually not tried hard enough.	○	○	○	○	○	○	○
Life would have very little meaning if we never had to suffer.	○	○	○	○	○	○	○
The person who can approach an unpleasant task with enthusiasm is the person who gets ahead.	○	○	○	○	○	○	○
If people work hard enough, they are likely to make a good life for themselves.	○	○	○	○	○	○	○
I feel uneasy when there is little work for me to do.	○	○	○	○	○	○	○
A distaste for hard work usually reflects a weakness of character.	○	○	○	○	○	○	○

Q20.5 People have different ideas about the role of the government in our society. Please choose a response to complete the following statements below. [b]

	Nothing at all	Not much	Some	A lot
To reduce poverty, the government should do:	○	○	○	○
To reduce poverty, the government can do:	○	○	○	○

Q20.6 What would do more to reduce poverty? Choose a statement that comes closer to your view (even if neither is exactly right). [b]

- ○ Raising taxes on the wealthy and corporations to expand programs for the poor.
- ○ Lowering taxes on the wealthy and corporations to encourage investment and economic growth.

Q20.7 Which statement comes closer to your view (even if neither is exactly right)? Government aid to the poor: [b]

- ○ does more good than harm because people can’t get out of poverty until basic needs are met.
- ○ does more harm than good by making people too dependent on government.

Q20.8 Please rate the importance of each of these factors as causes of poverty.

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Laziness	○	○	○	○	○
Low wages	○	○	○	○	○
Discrimination	○	○	○	○	○
Lack of thrift	○	○	○	○	○
Bad luck	○	○	○	○	○
Chance seasonal variations in the job market	○	○	○	○	○
Physical handicap	○	○	○	○	○
High taxes	○	○	○	○	○
Bad strategy	○	○	○	○	○
Poor land for crops	○	○	○	○	○
Temporary illness	○	○	○	○	○
Lack of aptitude	○	○	○	○	○
Prejudice	○	○	○	○	○
Temporary lack of effort	○	○	○	○	○
No jobs	○	○	○	○	○

Q20.9 Please indicate whether you agree or disagree with the following statements. [b]

	Disagree	Agree
Most people who want to get ahead can make it if they're willing to work hard.	○	○
The economic system in this country unfairly favors the wealthy.	○	○
Hard work and determination are not a guarantee of success for most people.	○	○
The economic system in this country is generally fair to most Americans.	○	○

Q20.10 Think about people who are middle class. How many middle class people are...

	None	A few	A moderate amount	A lot	All
Smart	○	○	○	○	○
Hardworking	○	○	○	○	○
Dishonest	○	○	○	○	○
Good	○	○	○	○	○
Lazy	○	○	○	○	○
Dirty	○	○	○	○	○
Dumb	○	○	○	○	○
Honest	○	○	○	○	○
Clean	○	○	○	○	○
Rude	○	○	○	○	○
Polite	○	○	○	○	○
Bad	○	○	○	○	○

Q21.1 You're almost done! To help us better understand who our participants are, please take a moment to answer these final questions.

Q21.2 The political views that people might hold are presented here from extremely liberal to extremely conservative. Where would you place yourself on this spectrum?

- ○ Extremely liberal
- ○ Liberal
- ○ Slightly liberal
- ○ Moderate, middle of the road
- ○ Slightly conservative
- ○ Conservative
- ○ Extremely conservative

Q21.3 Which best describes your political ideology?

- ○ Democrat
- ○ Republican
- ○ Libertarian
- ○ Independent
- ○ Other

Q21.4 What is your religious preference?

- ○ Catholic
- ○ Islam/Muslim
- ○ Hinduism
- ○ Buddhism
- ○ Jewish
- ○ Protestant
- ○ Other
- ○ Not religious

Q21.5 How religious do you consider yourself?

- ○ Very
- ○ Somewhat
- ○ A little
- ○ Not at all

Q21.6 Which of the following categories would you say best describes your social class?

- ○ Lower class
- ○ Working class
- ○ Middle class
- ○ Upper class

Q21.7 What is the zip code where you live? _____

Note. [a] Questions adapted from Johnson, Yarrow, Rochkind, and Ott (2012). [b] Questions adapted from Pew Research Center (2014).

Appendix E

Research Question 2 Logistic Regression Results (Non-significant)

Table E

Logistic Regression Predicting Likelihood of Performance on Report Card Based on Student Demographics

Variables	*B*	*S.E.*	95% C.I. for Exp(*B*)		
			Lower	Exp(*B*)	Upper
Bay Area	0.21	0.48	0.48	1.23	3.16
Central Valley	0.66	0.48	0.76	1.93	4.94
Central Coast	-0.32	0.54	0.25	0.73	2.11
San Diego	-0.57	0.38	0.27	0.57	1.19
Title I	-0.52	0.31	0.32	0.60	1.09
Manipulation Check	0.35	0.33	0.74	1.41	2.72
Social Class	-0.56	0.72	0.14	0.57	2.36
Gender	0.48	0.69	0.42	1.61	6.20
Race/Ethnicity	-0.34	0.62	0.21	0.71	2.38
Social Class*Gender	0.02	1.01	0.14	1.02	7.37
Social Class*Race/Ethnicity	1.77	0.92	0.96	5.88	35.93
Gender*Race/Ethnicity	-0.31	0.82	0.15	0.73	3.67
Social Class*Gender*Race/Ethnicity	-0.98	1.25	0.03	0.38	4.37
Constant	1.43	1.15		4.19	

Note. All regions (Bay Area, Valley, Coast, San Diego) were dummy coded (1), with the largest region, Los Angeles, serving as the reference category (0). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student social class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. *$p \leq 0.05$, **$p \leq 0.01$.

Appendix F

Research Question 3 Writing Grades Moderation Results (Non-significant)

Table F.1

Factorial ANCOVAs Including Negative Traits about the Poor

Variables	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
	df	*F*	Partial η^2	Sig.	*df*	*F*	Partial η^2	Sig.	*df*	*F*	Partial η^2	Sig.	*df*	*F*	Partial η^2	Sig.
Region	1	3.50	0.02	0.06	1	0.00	0.00	0.97	1	0.74	0.00	0.39	1	0.10	0.00	0.76
Title I	1	0.31	0.00	0.58	1	0.50	0.00	0.48	1	0.03	0.00	0.86	1	0.55	0.00	0.46
Manipulation Check	1	4.55	0.03	0.03	1	1.77	0.01	0.19	1	1.26	0.01	0.26	1	4.36	0.03	0.04
Social Class	1	0.60	0.00	0.44	1	0.05	0.00	0.82	1	0.97	0.01	0.33	1	0.69	0.00	0.41
Gender	1	1.23	0.01	0.27	1	0.41	0.00	0.52	1	0.02	0.00	0.90	1	0.58	0.00	0.45
Race/Ethnicity	1	3.60	0.02	0.06	1	0.02	0.00	0.89	1	0.20	0.00	0.65	1	0.22	0.00	0.64
Neg. Traits Poor	1	0.27	0.00	0.60	1	0.31	0.00	0.58	1	0.74	0.00	0.39	1	0.00	0.00	0.96
Social Class*Gender	1	0.72	0.00	0.40	1	0.17	0.00	0.68	1	2.74	0.02	0.10	1	1.77	0.01	0.19
Social Class*Race/Ethnicity	1	5.87	0.03	0.02	1	0.42	0.00	0.52	1	0.00	0.00	0.99	1	1.61	0.01	0.21
Social Class*Neg. Traits Poor	1	0.07	0.00	0.80	1	1.94	0.01	0.17	1	0.17	0.00	0.68	1	0.34	0.00	0.56
Gender*Race/Ethnicity	1	0.11	0.00	0.75	1	0.02	0.00	0.88	1	0.29	0.00	0.59	1	0.16	0.00	0.69
Gender*Neg. Traits Poor	1	0.46	0.00	0.50	1	2.43	0.01	0.12	1	2.22	0.01	0.14	1	1.31	0.01	0.26
Race/Ethnicity Neg. Traits Poor	1	0.42	0.00	0.52	1	0.22	0.00	0.64	1	3.09	0.02	0.08	1	0.67	0.00	0.42
Social Class*Gender*Race/Ethnicity	1	0.48	0.00	0.49	1	0.01	0.00	0.91	1	0.19	0.00	0.66	1	0.01	0.00	0.94
Social Class*Gender*Neg. Traits Poor	1	0.20	0.00	0.66	1	0.15	0.00	0.70	1	1.73	0.01	0.19	1	1.01	0.01	0.32
Social Class*Race/Ethnicity*Neg. Traits Poor	1	0.05	0.00	0.83	1	0.14	0.00	0.71	1	0.08	0.00	0.78	1	0.00	0.00	0.98
Gender*Race/Ethnicity*Neg. Traits Poor	1	0.78	0.01	0.38	1	0.39	0.00	0.54	1	0.01	0.00	0.91	1	0.00	0.00	0.95
Social Class*Gender*Race/Ethnicity* Neg. Traits Poor	1	0.01	0.00	0.94	1	0.00	0.00	0.95	1	0.00	0.00	0.95	1	0.00	0.00	0.99

Note. All regions (Bay Area = 1, Valley = 2, Coast = 3, Los Angeles = 4, San Diego = 5). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. Neg. Traits Poor = Negative trait attribution composite score for the poor. Adjusted alpha level of .01 per test (.05/8 = .006, $p < .01$).

Table F.2

Factorial ANCOVAs Including Positive Traits about the Poor

Variables	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
	df	*F*	Partial η^2	Sig.	*df*	*F*	Partial η^2	Sig.	*df*	*F*	Partial η^2	Sig.	*df*	*F*	Partial η^2	Sig.
Region	1	2.73	0.02	0.10	1	0.00	0.00	0.99	1	0.30	0.00	0.58	1	0.15	0.00	0.70
Title I	1	1.04	0.01	0.31	1	0.66	0.00	0.42	1	0.03	0.00	0.87	1	0.92	0.01	0.34
Manipulation Check	1	4.87	0.03	0.03	1	1.86	0.01	0.17	1	0.87	0.01	0.35	1	4.22	0.03	0.04
Social Class	1	0.31	0.00	0.58	1	0.05	0.00	0.83	1	1.83	0.01	0.18	1	0.51	0.00	0.48
Gender	1	1.60	0.01	0.21	1	3.53	0.02	0.06	1	1.68	0.01	0.20	1	4.34	0.03	0.04
Race/Ethnicity	1	6.86	0.04	0.01	1	0.17	0.00	0.68	1	1.10	0.01	0.30	1	3.03	0.02	0.08
Pos. Traits Poor	1	1.71	0.01	0.19	1	0.91	0.01	0.34	1	0.01	0.00	0.92	1	1.07	0.01	0.30
Social Class*Gender	1	0.30	0.00	0.58	1	0.01	0.00	0.93	1	0.08	0.00	0.78	1	0.02	0.00	0.90
Social Class*Race/Ethnicity	1	2.22	0.01	0.14	1	0.36	0.00	0.55	1	0.14	0.00	0.71	1	0.52	0.00	0.47
Social Class*Pos. Traits Poor	1	0.72	0.00	0.40	1	0.06	0.00	0.81	1	0.08	0.00	0.78	1	0.01	0.00	0.95
Gender*Race/Ethnicity	1	0.03	0.00	0.86	1	0.70	0.00	0.40	1	0.40	0.00	0.53	1	0.59	0.00	0.44
Gender*Pos. Traits Poor	1	0.69	0.00	0.41	1	0.50	0.00	0.48	1	0.74	0.00	0.39	1	1.14	0.01	0.29
Race/Ethnicity*Pos. Traits Poor	1	3.50	0.02	0.06	1	0.01	0.00	0.93	1	1.02	0.01	0.31	1	1.62	0.01	0.21
Social Class*Gender* Race/Ethnicity	1	1.39	0.01	0.24	1	0.14	0.00	0.71	1	0.09	0.00	0.77	1	0.30	0.00	0.59
Social Class*Gender*Pos. Traits Poor	1	2.24	0.01	0.14	1	0.25	0.00	0.62	1	1.26	0.01	0.26	1	1.94	0.01	0.17
Social Class*Race/Ethnicity*Pos. Traits Poor	1	0.11	0.00	0.74	1	0.02	0.00	0.90	1	0.00	0.00	0.98	1	0.03	0.00	0.87
Gender*Race/Ethnicity*Pos. Traits Poor	1	0.00	0.00	0.96	1	0.06	0.00	0.80	1	0.13	0.00	0.72	1	0.11	0.00	0.74
Social Class*Gender*Race/Ethnicity* Pos. Traits Poor	1	0.35	0.00	0.56	1	0.97	0.01	0.33	1	0.00	0.00	1.00	1	0.51	0.00	0.48

Note. All regions (Bay Area = 1, Valley = 2, Coast = 3, Los Angeles = 4, San Diego = 5). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. Pos. Traits Poor = Positive trait attribution composite score for the poor. Adjusted alpha level of .01 per test (.05/8 = .006, $p < .01$).

Table F.3

Factorial ANCOVAs Including Negative Traits about the Middle Class

Variables	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.
Region	1	3.14	0.02	0.08	1	0.02	0.00	0.90	1	0.14	0.00	0.71	1	0.32	0.00	0.57
Title I	1	0.21	0.00	0.65	1	0.67	0.00	0.41	1	0.02	0.00	0.89	1	0.58	0.00	0.45
Manipulation Check	1	5.46	0.03	0.02	1	1.65	0.01	0.20	1	1.13	0.01	0.29	1	4.50	0.03	0.04
Social Class	1	0.17	0.00	0.68	1	0.13	0.00	0.72	1	0.27	0.00	0.61	1	0.02	0.00	0.88
Gender	1	0.82	0.01	0.37	1	3.23	0.02	0.07	1	0.46	0.00	0.50	1	2.77	0.02	0.10
Race/Ethnicity	1	3.92	0.02	0.05	1	0.05	0.00	0.82	1	0.00	0.00	0.99	1	0.76	0.01	0.39
Neg. Traits MC	1	0.18	0.00	0.67	1	2.21	0.01	0.14	1	0.14	0.00	0.71	1	1.02	0.01	0.32
Social Class*Gender	1	0.61	0.00	0.44	1	0.32	0.00	0.58	1	2.97	0.02	0.09	1	2.12	0.01	0.15
Social Class*Race/Ethnicity	1	5.51	0.03	0.02	1	1.34	0.01	0.25	1	0.16	0.00	0.69	1	2.69	0.02	0.10
Social Class*Neg. Traits MC	1	0.19	0.00	0.66	1	0.04	0.00	0.85	1	0.84	0.01	0.36	1	0.32	0.00	0.57
Gender*Race/Ethnicity	1	0.00	0.00	0.97	1	0.00	0.00	0.96	1	0.03	0.00	0.87	1	0.01	0.00	0.91
Gender*Neg. Traits MC	1	0.23	0.00	0.63	1	0.58	0.00	0.45	1	0.00	0.00	0.99	1	0.44	0.00	0.51
Race/Ethnicity*Neg. Traits MC	1	0.69	0.00	0.41	1	0.07	0.00	0.79	1	0.90	0.01	0.34	1	0.10	0.00	0.76
Social Class*Gender* Race/Ethnicity	1	0.05	0.00	0.82	1	0.01	0.00	0.94	1	0.72	0.00	0.40	1	0.03	0.00	0.87
Social Class*Gender*Neg. Traits MC	1	0.23	0.00	0.64	1	0.19	0.00	0.67	1	0.59	0.00	0.44	1	0.70	0.00	0.41
Social Class*Race/Ethnicity*Neg. Traits MC	1	0.11	0.00	0.75	1	0.04	0.00	0.85	1	1.01	0.01	0.32	1	0.12	0.00	0.73
Gender*Race/Ethnicity*Neg. Traits MC	1	0.03	0.00	0.87	1	0.35	0.00	0.56	1	1.00	0.01	0.32	1	0.62	0.00	0.43
Social Class*Gender* Race/Ethnicity*Neg. Traits MC	1	0.94	0.01	0.33	1	0.14	0.00	0.71	1	0.52	0.00	0.47	1	0.19	0.00	0.66

Note. All regions (Bay Area = 1, Valley = 2, Coast = 3, Los Angeles = 4, San Diego = 5). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. Neg. Traits MC = Negative trait attribution composite score for the middle class. Adjusted alpha level of .01 per test (.05/8 = .006, $p < .01$).

Table F.4

Factorial ANCOVAs Including Positive Traits about the Middle Class

Variables	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.
Region	1	2.24	0.01	0.14	1	0.02	0.00	0.88	1	0.45	0.00	0.50	1	0.04	0.00	0.85
Title I	1	0.78	0.01	0.38	1	0.45	0.00	0.50	1	0.07	0.00	0.79	1	0.81	0.01	0.37
Manipulation Check	1	4.33	0.03	0.04	1	1.28	0.01	0.26	1	0.94	0.01	0.34	1	3.65	0.02	0.06
Social Class	1	0.43	0.00	0.52	1	0.19	0.00	0.67	1	1.61	0.01	0.21	1	0.36	0.00	0.55
Gender	1	0.71	0.00	0.40	1	2.63	0.02	0.11	1	1.05	0.01	0.31	1	2.76	0.02	0.10
Race/Ethnicity	1	3.86	0.02	0.05	1	0.00	0.00	0.99	1	0.35	0.00	0.56	1	1.15	0.01	0.29
Pos. Traits MC	1	0.10	0.00	0.75	1	1.01	0.01	0.32	1	0.09	0.00	0.77	1	0.55	0.00	0.46
Social Class*Gender	1	0.19	0.00	0.67	1	0.15	0.00	0.70	1	1.08	0.01	0.30	1	0.75	0.01	0.39
Social Class*Race/Ethnicity	1	6.32	0.04	0.01	1	0.74	0.00	0.39	1	0.05	0.00	0.83	1	1.77	0.01	0.19
Social Class*Neg. traits	1	0.21	0.00	0.65	1	0.68	0.00	0.41	1	0.01	0.00	0.93	1	0.09	0.00	0.77
Gender*Race/Ethnicity	1	0.06	0.00	0.81	1	0.44	0.00	0.51	1	0.13	0.00	0.72	1	0.15	0.00	0.70
Gender*Pos. Traits MC	1	0.20	0.00	0.66	1	0.11	0.00	0.74	1	0.20	0.00	0.66	1	0.27	0.00	0.61
Race/Ethnicity*Pos. Traits MC	1	0.79	0.01	0.37	1	0.04	0.00	0.85	1	0.08	0.00	0.78	1	0.18	0.00	0.68
Social Class*Gender*Race/Ethnicity	1	0.41	0.00	0.52	1	0.11	0.00	0.74	1	0.85	0.01	0.36	1	0.09	0.00	0.76
Social Class*Gender*Pos. Traits MC	1	0.01	0.00	0.93	1	0.08	0.00	0.78	1	0.06	0.00	0.82	1	0.06	0.00	0.81
Social Class* Race/Ethnicity*Pos. Traits MC	1	0.77	0.01	0.38	1	0.68	0.00	0.41	1	0.00	0.00	0.99	1	0.00	0.00	0.98
Gender*Race/Ethnicity*Pos. Traits MC	1	0.22	0.00	0.64	1	0.11	0.00	0.74	1	0.07	0.00	0.79	1	0.02	0.00	0.89
Social Class*Gender* Race/Ethnicity*Pos. Traits MC	1	0.16	0.00	0.69	1	0.06	0.00	0.80	1	1.46	0.01	0.23	1	0.39	0.00	0.53

Note. All regions (Bay Area = 1, Valley = 2, Coast = 3, Los Angeles = 4, San Diego = 5). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. Pos. Traits MC = Positive trait attribution composite score for the middle class. Adjusted alpha level of .01 per test (.05/8 = .006, $p <$ .01).

Table F.5

Factorial ANCOVAs Including Causal Attributions: Locus Endorsement

Variables	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.
Region	1	2.79	0.02	0.10	1	0.00	0.00	0.94	1	0.16	0.00	0.69	1	0.17	0.00	0.69
Title I	1	0.70	0.00	0.41	1	0.19	0.00	0.52	1	0.00	0.00	1.00	1	0.59	0.00	0.44
Manipulation Check	1	5.24	0.03	0.02	1	0.56	0.01	0.27	1	0.88	0.01	0.35	1	3.90	0.02	0.05
Social Class	1	0.90	0.01	0.35	1	0.13	0.00	0.59	1	2.05	0.01	0.15	1	0.52	0.00	0.47
Gender	1	0.34	0.00	0.56	1	1.35	0.02	0.09	1	0.36	0.00	0.55	1	2.11	0.01	0.15
Race/Ethnicity	1	3.82	0.02	0.05	1	0.02	0.00	0.84	1	0.58	0.00	0.45	1	1.47	0.01	0.23
Locus Endorsement	1	0.03	0.00	0.87	1	0.09	0.00	0.66	1	0.44	0.00	0.51	1	0.29	0.00	0.59
Social Class*Gender	1	0.39	0.00	0.53	1	0.15	0.00	0.56	1	2.39	0.01	0.12	1	1.70	0.01	0.19
Social Class*Race/Ethnicity	1	6.22	0.04	0.01	1	0.24	0.00	0.47	1	0.20	0.00	0.65	1	1.26	0.01	0.26
Social Class*Locus Endorsement	1	1.06	0.01	0.30	1	0.01	0.00	0.87	1	0.93	0.01	0.34	1	0.78	0.01	0.38
Gender*Race/Ethnicity	1	0.11	0.00	0.74	1	0.20	0.00	0.51	1	0.05	0.00	0.82	1	0.06	0.00	0.81
Gender*Locus Endorsement	1	0.27	0.00	0.61	1	0.04	0.00	0.76	1	0.67	0.00	0.42	1	0.06	0.00	0.81
Race/Ethnicity*Locus Endorsement	1	0.04	0.00	0.85	1	0.30	0.00	0.41	1	0.49	0.00	0.49	1	0.34	0.00	0.56
Social Class*Gender*Race/Ethnicity	1	0.48	0.00	0.49	1	0.11	0.00	0.62	1	0.52	0.00	0.47	1	0.05	0.00	0.82
Social Class*Gender*Locus Endorsement	1	0.67	0.00	0.41	1	0.10	0.00	0.63	1	2.34	0.01	0.13	1	0.72	0.00	0.40
Social Class*Race/Ethnicity*Locus Endorsement	1	0.82	0.01	0.37	1	0.68	0.01	0.22	1	0.13	0.00	0.72	1	1.47	0.01	0.23
Gender*Race/Ethnicity*Locus Endorsement	1	1.29	0.01	0.26	1	1.65	0.02	0.06	1	0.03	0.00	0.87	1	2.44	0.02	0.12
Social Class*Gender* Race/Ethnicity*Locus Endorsement	1	0.48	0.00	0.49	1	0.33	0.00	0.40	1	0.31	0.00	0.58	1	0.00	0.00	0.96

Note. All regions (Bay Area = 1, Valley = 2, Coast = 3, Los Angeles = 4, San Diego = 5). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. Locus Endorsement = Locus domain difference score. See page 33 for more information on causal attribution difference scores. Adjusted alpha level of .01 per test (.05/8 = .006, $p < .01$).

Table F.6

Factorial ANCOVAs Including Causal Attributions: Stability Endorsement

Variables	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.
Region	1	2.40	0.01	0.12	1	0.00	0.00	1.00	1	0.16	0.00	0.69	1	0.17	0.00	0.68
Title I	1	0.49	0.00	0.48	1	1.05	0.01	0.31	1	0.00	0.00	0.98	1	0.75	0.00	0.39
Manipulation Check	1	5.51	0.03	0.02	1	1.70	0.01	0.19	1	1.49	0.01	0.22	1	4.82	0.03	0.03
Social Class	1	0.28	0.00	0.60	1	0.00	0.00	0.96	1	0.77	0.01	0.38	1	0.38	0.00	0.54
Gender	1	0.38	0.00	0.54	1	0.98	0.01	0.32	1	1.73	0.01	0.19	1	1.88	0.01	0.17
Race/Ethnicity	1	3.32	0.02	0.07	1	0.16	0.00	0.69	1	0.08	0.00	0.78	1	1.11	0.01	0.29
Stability Endorsement	1	0.04	0.00	0.83	1	2.70	0.02	0.10	1	0.26	0.00	0.61	1	0.44	0.00	0.51
Social Class*Gender	1	0.26	0.00	0.61	1	0.95	0.01	0.33	1	1.47	0.01	0.23	1	1.62	0.01	0.21
Social Class Race/Ethnicity	1	3.71	0.02	0.06	1	0.76	0.01	0.39	1	0.09	0.00	0.76	1	1.12	0.01	0.29
Social Class*Stability Endorsement	1	0.62	0.00	0.43	1	0.95	0.01	0.33	1	0.82	0.01	0.37	1	0.04	0.00	0.84
Gender*Race/Ethnicity	1	0.04	0.00	0.84	1	0.13	0.00	0.72	1	0.07	0.00	0.79	1	0.04	0.00	0.85
Gender*Stability Endorsement	1	0.03	0.00	0.87	1	1.17	0.01	0.28	1	0.81	0.01	0.37	1	0.05	0.00	0.82
Race/Ethnicity*Stability Endorsement	1	0.00	0.00	0.99	1	0.04	0.00	0.84	1	0.88	0.01	0.35	1	0.26	0.00	0.61
Social Class*Gender*Race/Ethnicity	1	0.19	0.00	0.66	1	0.24	0.00	0.62	1	0.24	0.00	0.63	1	0.07	0.00	0.79
Social Class*Gender*Stability Endorsement	1	0.01	0.00	0.92	1	1.80	0.01	0.18	1	0.21	0.00	0.65	1	0.67	0.00	0.42
Social Class*Race/Ethnicity*Stability Endorsement	1	0.96	0.01	0.33	1	0.28	0.00	0.60	1	0.17	0.00	0.68	1	0.08	0.00	0.77
Gender*Race/Ethnicity*Stability Endorsement	1	0.07	0.00	0.79	1	0.43	0.00	0.51	1	0.39	0.00	0.53	1	0.48	0.00	0.49
Social Class*Gender*Race/ Ethnicity*Stability Endorsement	1	0.58	0.00	0.45	1	0.13	0.00	0.72	1	0.15	0.00	0.70	1	0.48	0.00	0.49

Note. All regions (Bay Area = 1, Valley = 2, Coast = 3, Los Angeles = 4, San Diego = 5). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. Stability Endorsement = Stability domain difference score. See page 33 for more information on causal attribution difference scores. Adjusted alpha level of .01 per test (.05/8 = .006, $p < .01$).

Table F.7

Factorial ANCOVAs Including Causal Attributions: Controllable Endorsement

Variables	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.
Region	1	1.79	0.01	0.18	1	0.14	0.00	0.71	1	0.18	0.00	0.67	1	0.02	0.00	0.89
Title I	1	1.61	0.01	0.21	1	1.17	0.01	0.28	1	0.00	0.00	0.98	1	1.23	0.01	0.27
Manipulation Check	1	4.93	0.03	0.03	1	1.30	0.01	0.26	1	0.56	0.00	0.46	1	3.49	0.02	0.06
Social Class	1	4.95	0.03	0.03	1	0.12	0.00	0.74	1	3.14	0.02	0.08	1	3.50	0.02	0.06
Gender	1	0.53	0.00	0.47	1	2.27	0.01	0.13	1	0.07	0.00	0.79	1	1.48	0.01	0.23
Race/Ethnicity	1	7.61	0.04	0.01	1	1.08	0.01	0.30	1	0.61	0.00	0.44	1	4.00	0.02	0.05
Controllable Endorsement	1	4.16	0.02	0.04	1	3.06	0.02	0.08	1	0.11	0.00	0.74	1	3.40	0.02	0.07
Social Class*Gender	1	0.35	0.00	0.56	1	0.12	0.00	0.73	1	2.77	0.02	0.10	1	1.44	0.01	0.23
Social Class*Race/Ethnicity	1	0.98	0.01	0.32	1	0.18	0.00	0.67	1	0.44	0.00	0.51	1	0.02	0.00	0.89
Social Class*Controllable Endorsement	1	7.23	0.04	0.01	1	2.04	0.01	0.16	1	1.36	0.01	0.25	1	5.68	0.03	0.02
Gender*Race/Ethnicity	1	0.07	0.00	0.79	1	0.13	0.00	0.72	1	0.51	0.00	0.48	1	0.15	0.00	0.70
Gender*Controllable Endorsement	1	0.38	0.00	0.54	1	0.00	0.00	0.96	1	1.13	0.01	0.29	1	0.08	0.00	0.78
Race/Ethnicity*Controllable Endorsement	1	1.46	0.01	0.23	1	0.54	0.00	0.47	1	0.46	0.00	0.50	1	1.42	0.01	0.24
Social Class*Gender*Race/Ethnicity	1	0.40	0.00	0.53	1	0.04	0.00	0.84	1	0.05	0.00	0.82	1	0.01	0.00	0.94
Social Class*Gender*Controllable Endorsement	1	0.08	0.00	0.78	1	0.00	0.00	0.96	1	1.24	0.01	0.27	1	0.39	0.00	0.54
Social Class*Race/ Ethnicity*Controllable Endorsement	1	4.53	0.03	0.04	1	7.34	0.04	0.01	1	0.99	0.01	0.32	1	7.16	0.04	0.01
Gender*Race/Ethnicity*Controllable Endorsement	1	0.33	0.00	0.57	1	0.67	0.00	0.41	1	0.86	0.01	0.36	1	0.04	0.00	0.85
Social Class*Gender*Race/Ethnicity* Controllable Endorsement	1	0.07	0.00	0.79	1	0.30	0.00	0.59	1	0.30	0.00	0.59	1	0.16	0.00	0.70

Note. All regions (Bay Area = 1, Valley = 2, Coast = 3, Los Angeles = 4, San Diego = 5). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. Controllable Endorsement = Controllable domain difference score. See page 33 for more information on causal attribution difference scores. Adjusted alpha level of .01 per test (.05/8 = .006, $p < .01$).

Table F.8

Factorial ANCOVAs Including Causal Attributions: Uncontrollable Endorsement

Variables	Organization & Focus				Elaboration & Details				Conventions				Total Writing Score			
	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.	df	F	Partial η^2	Sig.
Region	1	1.94	0.01	0.17	1	0.01	0.00	0.94	1	0.00	0.00	0.96	1	0.21	0.00	0.65
Title I	1	0.58	0.00	0.45	1	0.82	0.01	0.37	1	0.04	0.00	0.84	1	0.88	0.01	0.35
Manipulation Check	1	4.72	0.03	0.03	1	1.71	0.01	0.19	1	0.79	0.01	0.38	1	4.00	0.02	0.05
Social Class	1	1.39	0.01	0.24	1	0.78	0.01	0.38	1	2.70	0.02	0.10	1	0.55	0.00	0.46
Gender	1	0.09	0.00	0.76	1	2.77	0.02	0.10	1	0.01	0.00	0.91	1	0.93	0.01	0.34
Race/Ethnicity	1	3.44	0.02	0.07	1	0.00	0.00	0.99	1	0.59	0.00	0.44	1	1.17	0.01	0.28
Uncontrollable Endorsement	1	0.01	0.00	0.94	1	0.00	0.00	0.96	1	0.32	0.00	0.57	1	0.05	0.00	0.83
Social Class*Gender	1	0.50	0.00	0.48	1	0.06	0.00	0.80	1	3.41	0.02	0.07	1	1.62	0.01	0.21
Social Class*Race/Ethnicity	1	5.59	0.03	0.02	1	1.51	0.01	0.22	1	0.34	0.00	0.56	1	1.70	0.01	0.19
Social Class*Neg. traits	1	2.27	0.01	0.13	1	0.24	0.00	0.63	1	1.77	0.01	0.19	1	2.21	0.01	0.14
Gender*Race/Ethnicity	1	0.01	0.00	0.91	1	0.66	0.00	0.42	1	0.05	0.00	0.83	1	0.07	0.00	0.80
Gender*Uncontrollable Endorsement	1	0.08	0.00	0.78	1	1.16	0.01	0.28	1	2.68	0.02	0.10	1	0.01	0.00	0.92
Race/Ethnicity*Uncontrollable Endorsement	1	0.20	0.00	0.66	1	0.02	0.00	0.88	1	0.85	0.01	0.36	1	0.48	0.00	0.49
Social Class*Gender*Race/Ethnicity	1	0.29	0.00	0.59	1	0.13	0.00	0.72	1	1.73	0.01	0.19	1	0.25	0.00	0.62
Social Class*Gender*Uncontrollable Endorsement	1	0.82	0.01	0.37	1	0.09	0.00	0.76	1	0.68	0.00	0.41	1	0.04	0.00	0.84
Social Class*Race/ Ethnicity*Uncontrollable Endorsement	1	0.01	0.00	0.94	1	0.34	0.00	0.56	1	1.94	0.01	0.17	1	0.84	0.01	0.36
Gender*Race/Ethnicity*Uncontrollable Endorsement	1	0.47	0.00	0.50	1	1.27	0.01	0.26	1	0.05	0.00	0.82	1	1.03	0.01	0.31
Social Class*Gender*Race/Ethnicity* Uncontrollable Endorsement	1	.	0.00	.	1	.	0.00	.	1	.	0.00	.	1	.	0.00	.

Note. All regions (Bay Area = 1, Valley = 2, Coast = 3, Los Angeles = 4, San Diego = 5). Title I: School does not receive Title I funding = 0, receives Title I funding = 1. Manipulation Check: Participant did not get all 3 demographics correct = 0, did get all 3 correct = 1. Student Social Class: Poor = 0, Middle Class = 1. Gender: Female = 0, Male = 1. Race/Ethnicity: 0 = White, 1 = Minority. Uncontrollable Endorsement = Uncontrollable domain difference score. See page 33 for more information on causal attribution difference scores. Adjusted alpha level of .01 per test (.05/8 = .006, $p < .01$).

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