

Why Mrs. Stone Never Calls on Debra: A Case of Race-Gender Ideology in Practice

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Abstract: Opportunities to participate in classroom discussions can support learning, but implicit biases can influence how teachers distribute those opportunities. To date, though, research on implicit bias in education remains lab-based or not focused on processes of teaching and learning. Using a mixed methods case study design, this study investigates how ideologies of race and gender influenced Mrs. Stone's perceptions of her Latinx students, as well as her decision-making about whether to grant them participation opportunities. Findings reveal that Latinx students were significantly marginalized in class discussions, as evidenced by quantitative analytics generated by the EQUIP observation tool (<https://www.equip.ninja>). Discourse analysis shows how Mrs. Stone's description of these students as "well-behaved" and "fragile"—and her positioning of a student named Debra as a "good girl"—aligned with problematic racial and race-gender narratives about Latinx people and Latinx girls, and consequently prevented Mrs. Stone from soliciting their participation.

Introduction

Learning is a process organized by power dynamics (Esmonde & Booker, 2016; Philip, Bang, & Jackson, 2018). Ideologies of race, gender, and other social markers constitute learning environments, and can facilitate marginalization and inequity as they are taken up by teachers in the flow of social interaction (McAfee, 2014; D. Sadker, M. Sadker, & Zittleman, 2009). One concrete way that this can happen is through the deployment of implicit biases, which refer to "discriminatory biases based on implicit attitudes or implicit stereotypes" (Greenwald & Krieger, 2006, p. 951). Compared with explicit biases, which certainly remain in circulation, implicit biases fall outside people's conscious awareness. In light of two decades of research in social psychology demonstrating the negative impact of implicit bias in areas ranging from criminal justice to health care (Staats, Capatosto, Tenney, & Mamo, 2017), understanding how implicit bias operates in learning environments is a pressing concern.

Existing research in education on implicit bias has focused on correlations with student test performance (see van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010), or on how racially minoritized students are disciplined (see Ispa-Landa, 2018). Less is known, though, about how implicit bias affects the learning process itself. That is, teachers might harbor biased attitudes, but by what mechanism do those attitudes actually foster inequities in students' opportunities to learn? For example, engaging in public discourse has been shown to support learning (Resnick, Michaels, & O'Connor, 2010), but as spaces that require complex decision-making under considerable time pressure, whole-class discussions are ripe for teacher bias. Research has yet to examine how teachers' decision-making in these kinds of situations becomes influenced by broader societal ideologies.

This study engaged a group of middle school mathematics teachers in collecting and reflecting on quantitative data on equity patterns in classroom discourse, specifically whole-class discussions. Teachers used an equity-focused classroom observation tool called EQUIP (<https://www.equip.ninja/>) to generate quantitative data for reflection. The analysis presented here focuses on the Algebra 1 class of a single teacher from this group, Mrs. Stone (pseudonym), who was a White, veteran teacher with 33 years of experience. While Mrs. Stone's class was racially diverse, this study focuses on how Mrs. Stone made sense of the participation of her Latinx students because their participation was significantly underrepresented. In particular, a Latinx girl named Debra (pseudonym) received no public participation opportunities during the whole-class discussions that were analyzed as part of this yearlong project.

Using a mixed methods case study design, we investigate the following research question: *How did ideologies of race and gender mediate Mrs. Stone's pedagogical decision-making, specifically with respect to how she distributed participation opportunities in whole-class discussions for Latinx students?* Findings suggest how problematic racial narratives about Latinx people might have facilitated Mrs. Stone's diminished solicitation of Latinx students' participation, and also how intersectional race-gender narratives about Latinx girls might explain why Mrs. Stone never called on Debra.

Prior research on implicit bias related to learning

Research on implicit bias problematizes the view that people are fully in control and conscious of the reasons why they act and think the way they do (Greenwald & Krieger, 2006). A growing number of researchers are calling for studies of implicit bias in education (Ispa-Landa, 2018). To date, though, empirical research on how implicit bias influences educational phenomena—particularly at the classroom level—is limited. Some studies have examined the relationship between teachers’ implicit biases and student performance. For example, van den Bergh and colleagues (2010) found that implicit ethnic biases explained diminished performance for minoritized groups in the Netherlands. Besides test performance, extant research has focused on racial disparities in discipline, where Black children’s behavior—especially that of Black boys—has been interpreted as more “challenging” than White children’s behavior (Gilliam, Maupin, Reyes, Accavitti, & Shic, 2016).

Of the few studies that have examined bias in relation to phenomena closer to the learning process itself, research has tended to be lab-based. In a controlled experiment, Jacoby-Senghor and colleagues (2016) investigated whether implicit racial biases affected college students’ pedagogical approaches when they were asked to act as teachers and teach a lesson to a classmate. They found that high-bias White “teachers” expressed more anxiety and gave lower quality lessons to Black learners. In another lab-based experiment, Amodio and Devine (2006) found that White college students with anti-Black biases about Black intelligence and academic commitment were more likely to generate negative assessments of writing samples from Black students. This is noteworthy because assessing student work is a common instructional practice.

Finally, in one of the few field-based studies of bias in learning settings, Kumar, Karabenick, and Burgoon (2015) analyzed the relationship between teachers’ biases (related to White, Arab American, and Chaldean Americans) and self-reports of their instructional practices. They found that teachers demonstrating pro-White biases were less likely to report feeling responsible for implementing practices that attend to cultural issues and addressing cultural conflicts in the classroom. Whereas Kumar and colleagues used surveys to gather data on teachers’ instructional practices, we argue that research more directly examining the impact of teacher bias on everyday teaching and learning interactions could yield even richer insights.

Conceptual framework

The everyday work of teaching cannot be separated from the broader ideologies that circulate in society (Louie, 2018; Philip, 2011). Critical theorist Stuart Hall (1983) defined ideologies as “the mental frameworks—the languages, the concepts, categories, imagery of thought, and the systems of representation—which different classes and social groups deploy in order to make sense of, define, figure out and render intelligible the way society works” (p. 59). In Hall’s conceptualization, ideology itself is neither good nor bad. Rather, it is more accurate to say that ideologies are necessary to processes of meaning making. Specifically, ideologies make available cultural representations (Hall, 1982), which individuals deploy to organize, categorize, and prioritize social phenomena. Cultural narratives, which are generalizing stories about the behaviors or capacities of large groups of people, constitute one type of representation that frequently organizes social interaction.

In education, a number of false cultural narratives circulate about the academic abilities of different social marker groups. With respect to Latinx students, Gonzalez and Ayala-Alcantar (2008) found that Latinx students are often positioned by educators as not caring about school. They also note the incorrect belief that Latinx people “...speak their native language because they are simply ‘comfortable’ in that language and are not motivated enough to speak English” (p. 136), which dovetails with false perceptions of their supposed scholastic apathy. From an intersectional perspective, racial narratives become entangled with gender narratives. López and Chesney-Lind (2014) point out that “while the good, innocent, virginal girl continues to be an idealized image of womanhood associated with white females, it remains largely unattainable for young women of color, who are often characterized as hypersexual, manipulative, violent and sexually dangerous (Stephens and Phillips, 2003; Garcia, 2009)” (p. 528). Still, the “good girl” representation may be more available to Latinx girls, as cultural narratives exist that also position them as “baby makers” and “passive” (Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994).

In an era of political correctness, it is rare for such racist and misogynistic narratives to be explicitly vocalized in public spaces (I. López, 2014). However, ideologies can influence what people do and how they think without securing their conscious consent (Hall, 1982). Racial and gender narratives, for example, undergird the implicit biases that may cause teachers to unintentionally amplify participatory inequity (cf. Herbel-Eisenmann & Shah, 2019). Research shows that girls tend to receive lower-level questions than boys (D. Sadker et al., 2009), and that students of color tend to be engaged with lower-level mathematical tasks than White students (McAfee, 2014).

Why does this matter for learning? First, engaging in discourse as a way of grappling with academic content can support learning (Resnick et al., 2010). Second, the public nature of whole-class discussions means that they also become forums for students to be recognized by their peers as competent, thereby supporting the

kinds of robust domain identities intertwined with the learning process (Nasir & Hand, 2008). To illustrate, consider a classroom where Latinx girls are performing well on tests but never have an opportunity to publicly demonstrate their brilliance: this would be inequitable since they were denied opportunities to be positioned as competent by their peers. Further, the classmates of these Latinx girls would have lost an opportunity to challenge false racial, gender, and race-gender narratives about Latinx girls' academic abilities. Thus, we argue that it is not enough for students to simply "keep their heads down" and get good grades.

Method

This study used a mixed methods case study design. Drawing from mixed methods designs proposed by Johnson and Onwuegbuzie (2004), this study gave equal weight to quantitative and qualitative data, which were collected in sequential fashion on an iterative basis. Case studies are well-suited to analyzing rich, multi-faceted data sets and for generating deep theoretical insights (Yin, 2018). As a key goal of the present study was to generate theoretical knowledge about the nature and function of teacher bias, a case study methodology was an appropriate choice.

Research setting and overall design

Research took place during the 2017-2018 academic year at Northstar Middle School, a suburban school in the Midwest. In the five years prior to the study, with support from researchers at the local university, mathematics teachers at Northstar had been using action research to study and improve their teaching, specifically related to fostering robust mathematical discourse among their students. Teachers became interested in learning more about implicit bias and how it might be affecting equity patterns in class discussions because of significant changes in racial demographics across the district, especially with respect to a growing Latinx student population. Although many of the teachers cared about equity issues, they reported feeling under-prepared to deal with issues of bias.

Overall, the study was organized around iterative cycles of data collection, reflection, and pedagogical action intended to address potential biases revealed by the data. Details on data collection are provided later in this section. Broadly speaking, though, the study involved videotaping teachers' classrooms, analyzing the video for participation patterns in whole-class discussions, and supporting the teachers in interpreting the data.

Five teachers participated in the study, all of whom identified as White; four identified as women and one identified as a man. These were veteran teachers, with teaching experience ranging from 10 to 33 years. This case study focuses on one of the teachers, Mrs. Stone, who was selected because data suggested an interesting mix of both more and less equitable patterns in her classroom, and also because how she interpreted those patterns revealed complex tensions across racial and gender narratives. For her action research that school year, Mrs. Stone focused on an 8th grade Algebra 1 class consisting of 27 students. Because the study focused on *teachers'* biases, we asked teachers to identify their students' social markers, rather than having students self-identify. In terms of gender, 11 students (41%) were identified by her as girls and 16 students (59%) as boys. In terms of race, Mrs. Stone identified: 11 students as Black (41%), 7 students as White (26%), 4 students as Latinx (15%), 3 students as Asian (11%), and 2 students as Middle Eastern (7%).

EQUIP: An equity-focused classroom observation tool

In order to collect quantitative data on potential teacher biases, we used an equity-focused classroom observation tool called **EQUIP** (<https://www.equip.ninja/>), which stands for **E**quity **Q**uantified **I**n **P**articipation. EQUIP supports analysis of quantitative data on participation patterns: for example, what percentage of high-level questions are going to Black girls and emergent multilingual students, as opposed to Asian and White language dominant boys? EQUIP uses a methodology called "equity analytics" to cross-reference dimensions of classroom discourse (e.g., the questions a teacher asks, how much wait time they give, the quality of student responses) with social markers (Reinholz & Shah, 2018). In other words: *who* is engaging in and getting access to *what kinds* of discourse opportunities?

In this study, teachers agreed to focus primarily on race and gender, as well as on at least three discourse dimensions: type of teacher question ("why"-, "how"-, and "what"-level questions); type of student talk ("why"-, "how"-, and "what"-level responses); and length of student talk ("2+ sentences," "1 sentence," or "1 word"). These discourse dimensions and codes came from a codebook that was developed in a previous study for which reliability was achieved (see Reinholz & Shah, 2018). The unit of analysis in EQUIP is called the "participation sequence," which refers to a string of turns involving the same student. Every time a new student speaks is the beginning of a new participation sequence. While it is true that students can legitimately participate in non-verbal ways, this study focused on talk-based participation in whole-class discussions.

To analyze equity patterns, the equity analytics methodology generates "equity ratios." An equity ratio is defined as actual participation divided by expectation participation (based on demographic representation). To

illustrate, consider a sample graph generated by the EQUIP web app of a mock classroom, which shows three types of teacher questions cross-referenced with three gender categories (see Figure 1). Focusing on “Explanation” questions, EQUIP shows that the equity ratio for boys was slightly above 1.4. This was calculated as follows: 1) boys represent 41% of this mock classroom (13 of 32 students); 2) boys actually received 59% of all Explanation questions asked by the teacher (20 of 34 total); and 3) equity ratio = $59\% / 41\% = 1.44$. This indicates that boys received a disproportionately greater share of Explanation questions. In contrast, EQUIP shows that equity ratios were below 1 for both girls and nonbinary students, indicating that these groups of students received a disproportionately lower share of Explanation questions.

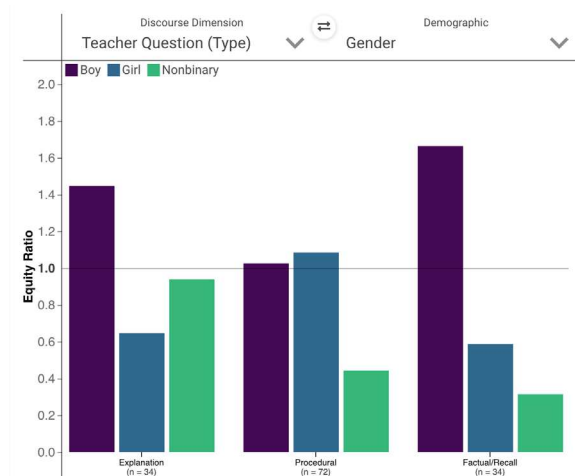


Figure 1. Sample EQUIP graph.

With respect to teacher bias, the equity ratios provide insight into potential biases. Dramatically higher or lower equity ratios could be interpreted as evidence of a potential bias—whether explicit or implicit. Of course, there may be many reasons—including teacher bias—why one group of students receives relatively more participation opportunities. At least, though, these quantitative analytics provide a starting point for deeper inquiry. Indeed, as we will show, how teachers interpret EQUIP data from their classrooms can illuminate the nature of potential biases.

Data collection

Data were collected over a nine-month period (September 2017 - May 2018) and occurred through iterative cycles of data collection and teacher reflection. Each of these cycles lasted roughly six weeks; each teacher was videotaped approximately 3-4 times per cycle. Overall, four full cycles involving EQUIP data took place during the study. In Mrs. Stone’s classroom, a total of 13 class sessions were videotaped and coded with EQUIP during the school year. There was a total of 361 participation sequences coded across these 13 class sessions.

At the end of each cycle, there was a half-day reflection meeting where teachers watched the videos of their teaching, discussed their data with colleagues in larger groups, and participated in one-on-one debriefs (30-40 minutes long) with a member of the research team. During the debriefs, teachers read through the analytics generated by EQUIP from the videotaped observations that cycle. The research team followed a semi-structured interview protocol to facilitate the debrief interviews. Primarily, the goal of the debriefs was to provide a space for teachers to use the EQUIP data to generate deep and novel insights about their practice, as well as be supported in formulating action plans to attenuate patterns of inequity (see Herbel-Eisenmann & Shah, 2019 for examples of the plans the teachers developed and enacted).

Analytical approach

This study focuses on Latinx students in Mrs. Stone’s class: both what EQUIP analytics revealed about their participation opportunities, and how Mrs. Stone made sense of those particular analytics. The latter involved qualitative analysis of the four debrief interviews with Mrs. Stone. Based on Hall’s (1982) theory of ideology presented earlier, ideology materializes in discourse. Thus, to analyze ideology one can analyze discourse. First, all of the interviews with Mrs. Stone were transcribed (approximately 80 pages of transcript). Next, segments of transcript where Mrs. Stone discussed her Latinx students or Latinx people in general were extracted. Finally, we analyzed the language used to describe these students and their participation. Using a technique established in a previous study (see Shah, 2017), we identified instances of cultural narratives related to race and gender. In

particular, we focused on language that was latently race- or gender-neutral, but that plausibly was implicitly “coding” for race, gender, or race-gender (I. López, 2014). For example, as I will present in the Findings, the word “quiet” was used to describe both Latinx students and Latinx girl students. Cross-referencing these words with extant research in race and gender studies allowed us to build warrants for claims that particular ideologies were being invoked through the deployment of coded language. The identification of cultural narratives in conjunction with coded language made it possible to triangulate the nuances of the various ideologies at play in the data.

Findings

Of the 27 students in Mrs. Stone’s class, four students (Debra, Mateo, Julisa, and Mark) were identified by Mrs. Stone as Latinx. Mark was among the most frequent participants in class discussions, but the other three students had less than 5 participation sequences. Debra and Mateo were the only students in the class with 0 participation sequences across all 13 classroom observations. Overall, in terms of the raw quantity of participation, Latinx students were substantially underrepresented. With respect to the quality of their participation opportunities, equity ratios for all three teacher question types (why, how, what) afforded to Latinx students were less than 0.6, indicating that Latinx students had disproportionately fewer opportunities to participate. EQUIP analytics for student talk show similar patterns of marginalization, as Latinx student participation was substantially underrepresented (all less than 0.6) across all categories of talk and talk length.

In this section, we analyze how these patterns related to Mrs. Stone’s sense making about the Latinx students who were marginalized in her classroom. Specifically, we demonstrate how racial and gender narratives about Latinx students shaped Mrs. Stone’s decision-making about whether or not to call on them. We begin by discussing issues related to her Latinx students overall, and then follow by analyzing how racial and gender narratives converged to deny participation opportunities to a Latinx girl named Debra.

“Quiet,” “well-behaved,” and “fragile”: Latinx students positioned as compliant

During the initial background interview, Mrs. Stone did not mention being aware of racial narratives about Latinx people, and she did not explicitly espouse any overtly anti-Latinx racist discourse. However, analysis of the language Mrs. Stone used to describe her Latinx students suggests that she perceived them to be compliant and passive—both with respect to academics and social behavior. One word that figured prominently in Mrs. Stone’s language was “quiet.” For example, during the first debrief, Mrs. Stone described Julisa as “very quiet,” and then during the second debrief she made the more general statement that “the Latino group has consistently been quiet.”

The word quiet indexes several broader issues. First, it raises the issue of language proficiency. That is, rather than enacting a presumed personality preference by not verbally participating, are “quiet” Latinx students actually being silenced due to limited proficiency with the dominant language? While not all Latinx people in the U.S. struggle with English, Mrs. Stone might reasonably have wondered whether language marginalization might have been influencing the lack of participation opportunities she was distributing to her Latinx students. When explicitly prompted about this issue, Mrs. Stone could not recall if some or all of the four students had been tested for English proficiency and could only speculate about their test results (she thought Julisa might have an official “limited English” designation).

Second, “quiet” sometimes has a gendered connotation, as when girls and women are positioned as “shy” and demure. Counter-discourses urging girls and women to “speak out,” “lean in,” and “tell your story” can be interpreted as responses to being positioned as “quiet.” The imposition of this historically gendered discourse on Latinx students is noteworthy. One interpretation is that it functions to “emasculate” Latinx students—not in the sense of gender identity per se, but rather in terms of expropriating their academic agency. In other words, “quiet” positions Latinx students as passively accepting marginalization.

Another word that was deployed multiple times was “well-behaved.” About Latinx students, for instance, Mrs. Stone said: “They’re well-behaved. I don’t have to demand mature behavior by getting them into the discussion” (Debrief #2). Speaking about specific students, Mrs. Stone said, “[Mateo] is a very quiet—just a very nice young man, very quiet, and doesn’t seem to have a lot of success or confidence. Debra [is] very quiet, but similar” (Final Debrief). And about Julisa she said: “Classroom management-wise I never have to worry about her. Math, once she understands what to do, boom, she’s good. She’s a little bit slower, she’s gotta process, but she’s great after that. She’s a little bit more on the math, but not quite. Sometimes I wonder, with Julisa, if it’s a bit of language, as well” (Debrief #3). The phrases “nice young man” and “I never have to worry about her” construct Latinx students as docile and under control. Given Mrs. Stone’s emphasis on her students’ behavior and social development, positioning Latinx students as “well-behaved” is significant.

Mrs. Stone also linked being “well-behaved” (i.e., not a “management problem”) to being “quiet”: “Mateo and Julisa...would be happy to be quiet the whole time...They’re fine. They’re not a problem. You don’t have to manage them by having them—making sure they’re in [the discussion]—” (Debrief #4). Although these

comments were made with a degree of wryness and self-reproach, Mrs. Stone's framing of these students being "happy" to be quiet is problematic. It suggests that they did not participate because they preferred it that way, that they were content with their marginalization. More indirectly, it implies that Mrs. Stone did not call on them because it would have violated their preferences. Further, because she used class discussions as a form of classroom management, positioning these students as "well-behaved" meant that she did not have to solicit their participation. Effectively, Mrs. Stone absolved herself of responsibility for their marginalization.

Finally, Mrs. Stone spoke repeatedly about her Latinx students' "fragility" regarding their capacity to engage in mathematical discourse:

I feel like if I cold-call on Mark, he's got something he can draw from because—I think he's confident...I'm not sure—I know that Mateo is not confident. Sometimes he doesn't engage, he won't even do it. I'm just not ready to take that risk with him. I don't wanna—I think that would interfere with our relationship. I could be wrong. Also, I just don't want him—to put him in a position to fail. (Debrief #4)

Mrs. Stone begins by talking about Mark: the only Latinx student who was granted frequent opportunities to participate. She positions Mark as "confident" and as possessing "something he can draw from." Consequently, she feels comfortable calling on him. In contrast, Mateo's perceived lack of confidence prevents Mrs. Stone from calling on him because she is "just not ready to take that risk with him" and does not want to "put him in a position to fail." On the one hand, the care and concern Mrs. Stone shows Mateo is admirable; she genuinely did not want him to feel bad about himself. To be sure, publicly calling on a struggling student does come with risk: the student might be ridiculed or feel discouraged from participating in the future if they are wrong. On the other hand, the effect is that Mateo is denied important opportunities to learn and to publicly display competence to his classmates.

Debra: "Good girl," invisible student

Debra was subject to much of the same language that was deployed against the other Latinx students. During Debrief #2, Mrs. Stone described three boy students as "fragile"—one of whom was Latinx (Mateo). However, with respect to Debra, Mrs. Stone described her as being even more fragile than these boy classmates. She also referred to Debra as "low-maintenance" and "never a management issue" (Debrief #2), which aligns with the previous discussion of Mrs. Stone's positioning of Latinx students as "well-behaved." Finally, not only did Mrs. Stone explicitly refer to Debra as "very quiet," but she also said that Debra "seemed to be more comfortable just sitting back and watching" (Debrief #4). This framing of Debra positions her as *preferring* passivity and non-participation, and also implies that Mrs. Stone was actually acting in her interests by not calling on her.

There was evidence that some of the racialized language used to describe Debra was also gendered. For example, Mrs. Stone had this to say about Debra during Debrief #2:

Debra has early on, perhaps, answered a question when I had called on her. As I see her understanding being really fragile, I am not cold-calling her. I refuse to. She's very sweet, and I am worried. I think to myself, and I feel guilty because I'm gone. If her parents see her grade and she sees her grade, it's really bad. Yeah, it's really bad. She's not doing her homework like she should. She demonstrates very little understanding, but yet she's delightful.

One might interpret "very sweet" and "delightful" as compliments. While superficially they are nice things to be called, we argue that they are also gendered in ways that recruit Debra into a discourse of passive and compliant femininity. They also add a gendered connotation to "well-behaved," which functions slightly differently in Debra's case than it did for Latinx boys like Mateo. That is, Debra was not constituted as a student actively seeking and seizing opportunities to learn. Although Mrs. Stone was genuinely "worried" about Debra, it raises questions about the nature of this worry, and also how it affected whether Debra was granted participation opportunities.

Another aspect of Debra's race-gender positioning involved the idea of a "good girl." Data show that Mrs. Stone understood this subject position in racial terms, specifically in relation to Latinx girls:

That, culturally, is a very good way for girls to get through things: I'll just be a good girl and be quiet. As long as I don't make any waves, I can just—and there's no expectation from me, because you know girls. They don't—You know what I mean? I think that's part of the Hispanic culture, too. (Debrief #2)

The notion of a “good girl” functions as an intersectional subject position. That is, through “good girl,” Mrs. Stone fixes Debra in a particular way of being in “Hispanic culture.” Within this racial context, “good girls” are “quiet” and “don’t make any waves.” The analog of the “good girl” for Latinx boys was the notion of the “nice young man,” as Mateo was called. Interestingly, in U.S. race-gender discourse Latinx women are often positioned quite differently (i.e., as “loud,” “spicy,” and lascivious). It could be that this particular discourse of compliance is age-specific to young Latinx women and girls.

How does Mrs. Stone’s race-gender positioning of Debra relate to the participation opportunities she was given? We argue that because Debra met Mrs. Stone’s bar for “acting like a lady,” she faded from Mrs. Stone’s attention and was rendered academically invisible. As Mrs. Stone herself put it, “she’s no management [problem] at all, so she gets overlooked.” In addition, though, Mrs. Stone’s “worry” of Debra’s fragility prevented her from calling on Debra. Together, these deployments of racialized and gendered narratives help explain why Mrs. Stone never called on Debra.

Discussion and implications

This study examined how ideologies of race and gender influenced a teacher’s perception of and pedagogical decision-making related to minoritized students in her class—in this case, Latinx and Latinx girl students. Findings show that racial and race-gender narratives about these social marker groups were reflected in the language Mrs. Stone used while discussing the participation of particular Latinx students. By positioning these students as passive and compliant (i.e., not behavior problems), we argue that they essentially became invisible to Mrs. Stone, which contributed to their marginalization in whole-class discussions. In particular, the case of Debra shows how ideologies of race and gender can intersect to facilitate participatory inequity for girls of color.

These findings contribute to the field’s understanding of teaching as a power-laden process, as well as to research on implicit bias in education. With respect to teaching, this study illuminates how teachers’ moment-to-moment decision-making is not merely a matter of local happenstance. Rather, it must be understood as linked to broader ideologies of race, gender, and race-gender intersections (Louie, 2018; Philip, 2011). In that sense, this work adds to our understand of how power operates *in situ* through regular classroom activity. With respect to extant research on implicit bias in education—which has emphasized test performance (van den Bergh et al., 2010) and discipline (Gilliam et al., 2016)—this study sheds light on how implicit bias influences teaching in authentic classroom situations.

We conclude by reflecting on implications for both practice and future research. Teachers are among the most kind and caring individuals in a society. And yet, the case of Mrs. Stone shows how being *too* caring—and thus not soliciting a student’s public participation because you perceive them as “fragile”—can amplify inequity. Teacher education has a role to play in engaging novice and veteran teachers in grappling with the tension between protecting students and maintaining their access to opportunities to learn. Another implication for practice is the value in actively monitoring how one’s biases affect instruction. Typically, the only type of equity-related data that teachers receive concerns standardized test scores. It is promising that in this case, the EQUIP tool could support a 30-year veteran teacher like Mrs. Stone in learning new insights about both her practice and ideologies of race and gender.

Finally, this study opens new questions and directions for research. First, the findings also suggest the need for a more nuanced view of “implicit bias.” Whereas the literature suggests a binary view of implicit bias (either you have a bias or you don’t), here one of Mrs. Stone’s Latinx students was actually among the most frequent participants in class discussions. More research is needed regarding the situational factors that mediate the deployment of implicit bias. Second, while here we focused on the teacher, it would be generative to also consider how *students’* experiences in class discussions do or do not align with teachers’ perceptions. In conclusion, we reiterate Philip and colleagues’ (2018) call to center the question of “for whom” we design learning environments. Indeed, if the learning sciences is to realize its commitments to equity and justice, we will need to focus on the particular sociopolitical forces that shape the learning needs and experiences of minoritized learners.

References

- Amodio, D. M., & Devine, P. G. (2006). Stereotyping and evaluation in implicit race bias: evidence for independent constructs and unique effects on behavior. *Journal of Personality and Social Psychology*, 91(4), 652-661.
- Esmonde, I., & Booker, A. (2016). *Power and privilege in the learning sciences: Critical and sociocultural theories of learning*. New York, NY: Routledge.
- Gilliam, W. S., Maupin, A. N., Reyes, C. R., Accavitti, M., & Shic, F. (2016). Do early educators’ implicit biases regarding sex and race relate to behavior expectations and recommendations of preschool expulsions and suspensions. *Research Study Brief. Yale University, Yale Child Study Center, New Haven, CT*.

- Gonzalez, R., & Ayala-Alcantar, C. U. (2008). Critical caring: Dispelling Latino stereotypes among preservice teachers. *Journal of Latinos and Education*, 7(2), 129-143.
- Greenwald, A. G., & Krieger, L. H. (2006). Implicit bias: Scientific foundations. *California Law Review*, 94(4), 945-967.
- Hall, S. (1982). The rediscovery of 'ideology': Return of the repressed in media studies. In M. Gurevitch, T. Bennett, J. Curran, & J. Woollacott (Eds.), *Culture, society and the media* (pp. 61-95). London: Methuen & Co. Ltd.
- Hall, S. (1983). The problem of ideology: Marxism without guarantees. In B. Matthews (Ed.), *Marx: 100 Years On* (pp. 57-84). London: Lawrence & Wishart.
- Herbel-Eisenmann, B., & Shah, N. (2019). Detecting and reducing bias in questioning patterns. *Mathematics Teaching in the Middle School*, 24(5), 282-289.
- Ispa-Landa, S. (2018). Persistently harsh punishments amid efforts to reform: Using tools from social psychology to counteract racial bias in school disciplinary decisions. *Educational Researcher*, 47(6), 384-390.
- Jacoby-Senghor, D. S., Sinclair, S., & Shelton, J. N. (2016). A lesson in bias: The relationship between implicit racial bias and performance in pedagogical contexts. *Journal of Experimental Social Psychology*, 63, 50-55.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Kumar, R., Karabenick, S. A., & Burgoon, J. N. (2015). Teachers' implicit attitudes, explicit beliefs, and the mediating role of respect and cultural responsibility on mastery and performance-focused instructional practices. *Journal of Educational Psychology*, 107(2), 533.
- López, I. H. (2014). *Dog whistle politics: How coded racial appeals have reinvented racism and wrecked the middle class*. New York, NY: Oxford University Press.
- López, V., & Chesney-Lind, M. (2014). Latina girls speak out: Stereotypes, gender and relationship dynamics. *Latino Studies*, 12(4), 527-549.
- Louie, N. L. (2018). Culture and ideology in mathematics teacher noticing. *Educational Studies in Mathematics*, 97(1), 55-69.
- McAfee, M. (2014). The kinesiology of race. *Harvard Educational Review*, 84(4), 468-491.
- Nasir, N. S., & Hand, V. (2008). From the court to the classroom: Opportunities for engagement, learning, and identity in basketball and classroom mathematics. *Journal of the Learning Sciences*, 17(2), 143-179.
- Niemann, Y. F., Jennings, L., Rozelle, R. M., Baxter, J. C., & Sullivan, E. (1994). Use of free responses and cluster analysis to determine stereotypes of eight groups. *Personality and Social Psychology Bulletin*, 20(4), 379-390.
- Philip, T. M. (2011). An "ideology in pieces" approach to studying change in teachers' sensemaking about race, racism, and racial justice. *Cognition and instruction*, 29(3), 297-329.
- Philip, T. M., Bang, M., & Jackson, K. (2018). Articulating the "how," the "for what," the "for whom," and the "with whom" in concert: A call to broaden the benchmarks of our scholarship. *Cognition and Instruction*, 1-6. doi:10.1080/07370008.2018.1413530
- Resnick, L. B., Michaels, S., & O'Connor, C. (2010). How (well structured) talk builds the mind. In D. D. Preiss & R. J. Sternberg (Eds.), *Innovations in educational psychology: Perspectives on learning, teaching and human development* (pp. 163-194).
- Reinholz, D., & Shah, N. (2018). Equity analytics: A methodological approach for quantifying participation patterns in mathematics classroom discourse. *Journal for Research in Mathematics Education*, 49(2), 140-177.
- Sadker, D., Sadker, M., & Zittleman, K. R. (2009). *Still failing at fairness: How gender bias cheats girls and boys in school and what we can do about it*. New York, NY: Simon and Schuster.
- Staats, C., Capatosto, K., Tenney, L., & Mamo, S. (2017). *State of the science: Implicit bias review*. Retrieved from The Ohio State University: <http://kirwaninstitute.osu.edu/researchandstrategicinitiatives/implicit-bias-review/>.
- van den Bergh, L., Denessen, E., Hornstra, L., Voeten, M., & Holland, R. W. (2010). The implicit prejudiced attitudes of teachers: Relations to teacher expectations and the ethnic achievement gap. *American Educational Research Journal*, 47(2), 497-527.
- Yin, R. K. (2018). *Case study research: Design and methods* (6th ed.). Thousand Oaks, CA: SAGE Publications.

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