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An Intersectional Analysis of Latin@ College Women's Counter-stories in Mathematics

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In this article, the author discusses the intersectionality of mathematics experiences for two Latin@ college women pursuing mathematics-intensive STEM (science, technology, engineering, and mathematics) majors at a large, predominantly White university. The author employs intersectionality and poststructural theories to explore and make meaning of their experiences in relation to discourses of mathematics ability and pursuits of STEM higher education. A cross-case analysis of two Latin@ college women's counter-stories details the development of success-oriented beliefs and strategies in navigating the discourses that they encountered institutionally and interpersonally in their mathematics experiences. Implications are raised for P–16 mathematics and STEM education to broaden equitable learning opportunities for Latin@ women and other marginalized groups' construction of positive mathematics identities at intersections of gender and other social identities.

KEYWORDS: gender, higher education, intersectionality, Latin@ women, mathematics identity, undergraduate mathematics

"*She pursued a math career, culture caught up with her*"
– Tracey, Latin@ college woman

Extant research has often adopted either gender or race for its lens of analysis in understanding experiences of marginalization among women and students of color in mathematics (see, e.g., Berry, 2008; Boaler, 2002; Damarin, 2000; Fennema, Carpenter, Jacobs, Franke, & Levi, 1998; Martin, 2000; Mendick, 2006; Stinson, 2008; Terry, 2011). Research that focuses on a single dimension of identity, however, risks homogenizing group experiences and overlooking within-group differences for negotiating discourses[1] in mathematics and society at large.

[1] In this context, I draw on Stinson's (2008) definition of *discourses* as the "language and institutions as well as complex signs and practices that order and sustain sociocultural and sociohistorical constructed forms of social existence" (p. 977).

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At the undergraduate level, scholars have largely focused on examining statistical trends of negative influences among women, African Americans, and Latin@s[2] with limited analysis of factors for their retention and academic success in STEM (science, technology, engineering, and mathematics; Chapa & De La Rosa, 2006; Cole & Espinoza, 2008; Simpson, 2001). In efforts to disrupt discourses of STEM underachievement and underrepresentation associated with these populations, it is also important for research to qualitatively unpack these student populations' strategies of resilience and persistence in STEM higher education at intersections of gender, race, and other dimensions of their social identities.

Researchers exploring equity issues in STEM higher education have begun to leverage intersectional analyses to obtain nuanced understandings of social influences on retention and student experiences among underrepresented groups, particularly, historically marginalized women of color and members of the LGBTQ+ (lesbian, gay, bisexual, trans*, queer/questioning, and other) community (Camacho & Lord, 2013; Cech & Waidzunas, 2011; Espinosa, 2011; Lord et al., 2009; Reyes, 2011). Mathematics education scholars have also called for such intersectional considerations of marginalized students' strategies in negotiating mathematics experiences with gendered and racial discourses (Esmonde, Brodie, Dookie, & Takeuchi, 2009; Lim, 2008; Martin, 2009; Oppland-Cordell, 2014; Zavala, 2015).

I argue that intersectional analyses can nuance our understandings of mathematics as a gendered and racialized space across the P–16 school pipeline as well as inform ways to better support and broaden opportunities for minoritized populations in mathematics. Coupled with a conceptualization of gender as socially constructed and discursively produced differently across contexts and individuals (Butler, 1990), intersectional analyses allow for explorations of how the racialized masculinization of mathematics structures inequitable access and opportunities among African American and Latin@ women—two marginalized populations whose experiences are largely unexplored in mathematics education research.

In this article, I present case studies of two Latin@ college women in their second semester of pursuing mathematics-intensive majors[3] at a large, predominantly White institution in the northeastern United States. Using poststructural theory (e.g., St. Pierre, 2000) and intersectionality (Crenshaw, 1989, 1991) as well as critical race theory (CRT) methodology (e.g., Solórzano & Yosso, 2002), I closely examine these Latin@ women's counter-stories focusing on negotiations of their

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[2] Drawing on Gutiérrez (2013), the term *Latin@* decenters the patriarchal nature of the Spanish language that traditionally groups Latin American women and men into a single descriptor *Latino*, denoting only men. The @ symbol allows for gender inclusivity among Latin Americans compared to the either–or form *Latina/o*, implying a gender binary.

[3] In the context of this study, mathematics-intensive is defined as STEM majors requiring at least two semesters of calculus based on the university's curriculum. Such majors include but are not limited to astrophysics, chemistry, computer science, engineering, mathematics, and physics.

experiences in high school and first year of college with discourses in mathematics, STEM higher education, and society more broadly. This analysis proposes the following questions to explore mathematics as a socially exclusionary space:

1. What are the dominant discourses of mathematics ability and STEM higher education raised in the two Latin@ college women's counter-stories?

2. To what extent did they encounter these discourses in school and classroom structures as well as interpersonal relationships during high school and in college?

3. What strategies did they employ in making meaning of their experiences and navigating these discourses at intersections of their gender, race, and other identities?

Literature Review

In this section, I present a review of relevant literature starting with an overview of intersectionality theory (Crenshaw, 1989, 1991). With intersectionality as a tenet of CRT, I then examine the extent to which intersectionality has been explored in prior mathematics education research that adopted CRT methodology (Solórzano & Yosso, 2002). I then review research outside of CRT work to document how intersectionality has been leveraged in exploring issues of gender in mathematics education. I particularly focus on research about gender as it is the other dimension of social identity besides race that has been most widely studied in mathematics education as well as comprised the original intersection (race/gender) that motivated the theorization of intersectionality in Black feminist thought. To conclude the review, I examine intersectional analyses across equity work in STEM higher education to argue for the use of intersectionality in detailing mathematics as a socially exclusionary space and informing ways to better support marginalized populations, including women of color, during their transition into undergraduate mathematics education.

Intersectionality and Black Feminist Thought

Intersectionality is a concept based in Black feminist thought that was coined and adopted by Crenshaw (1989, 1991) to detail intersectional forms of marginalization legally and politically experienced by historically marginalized women of color in the United States. Crenshaw (1991) highlighted the importance of attending to the "intersecting patterns of racism and sexism" (p. 1243) that are often not reflected in feminist and antiracist discourses shaping legal and political structures.

Although Crenshaw's legal analyses focus on Black women's lived experiences at intersections of race and gender, she acknowledged that the complexity of intersectional oppression can be further elucidated by attending to other dimensions of individuals' social experiences including class, immigration, and sexuality (Crenshaw, 1991).

Intersectionality then refers to unique forms of intersecting oppression that emerge from gender, race, class, sexuality, and other social categories "function[ing] as parallel and interlocking systems" (Collins, 1993, p. 29) of domination and subordination. At intersections of gender and race, for example, hooks (1981) detailed the American Black female experience during times of slavery, the Civil Rights movement, and feminist movements by attending to "both the politics of racism and sexism from a feminist perspective" (p. 13) rather than solely sexism. W. E. B. Du Bois similarly pursued an intersectional analysis of the Black political economy with race, class, and nation as intersecting "social hierarchies that shaped African American access to status, property, and power" (Collins, 2000b, p. 42). Collins (2000b) critiqued Du Bois' analysis as "progressive yet paternalistic" (p. 43). While Du Bois aligned with Black feminist thought in his description of Black women's unique societal oppression, he viewed gender more as a "personal identity category" (p. 42) than as a system of power and thus was left unexamined in his intersectional analysis. Crenshaw's (1991) and Collins' (2000b) assertions for the analytical significance of centering intersections to obtain more holistic understandings of gendered as well as racialized lived experiences have been taken up in relation to class (Davis, 1981; Feagin & Sikes, 1994), nation and immigration (Anthias & Yuval-Davis, 1992; Yuval-Davis, 1997), and sexuality (Lorde, 1982; Moraga & Anzaldúa, 1981).

Intersectionality in Mathematics Education Research

In mathematics education research, studies have illustrated how systems of power result in gendered and racialized struggles among marginalized groups to access high-quality educational opportunities and to prove their academic legitimacy (Barnes, 2000; Berry, 2008; Boaler, 2002; McGee & Martin, 2011; Mendick, 2006). These analyses advanced understandings of social influences that impact mathematics achievement and identities with varying degrees of attention to the intersectionality of experience among sampled populations and study participants.

Much research that adopted CRT methodology foregrounds race in its analyses while intersections of race and other social forms of oppression (e.g., gender, class) are left implicit beyond the sampling of participants (Berry, 2008; Berry, Thunder, & McClain, 2011; McGee & Martin, 2011; Terry, 2010). In their study of six academically resilient, Black[4] mathematics and engineering college students' life stories, for example, McGee and Martin (2011) examined how these students co-constructed their mathematics and racial identities through stereotype management in response to racial stereotypes of Blacks' limited mathematics ability and non-academic behaviors. McGee and Martin acknowledged room for further analysis in their study about the intersectionality of the Black students' racialized experiences and argued that such an analysis can only be considered by first unpacking the racialization of mathematics:

> Our focus on race does not imply that race, class, and gender intersections are not important. However, more nuanced understandings of race…must be developed among mathematics and science educators if these intersections are to be seriously considered. (p. 1349)

I agree with McGee and Martin as well as other critical race scholars about the importance of documenting variation of racialized experiences to challenge deficit-based racial discourses in mathematics. However, I argue that holding off on intersectional analyses is unnecessary as intersectionality serves as an analytical tool for capturing such variation in racialized forms of mathematics achievement and experiences to disrupt deficit discourses about students of color.

In his participatory action research (PAR) study, Terry (2010) used CRT methodology to document seven high school Black male youth's construction of mathematics counter-stories about imprisonment and college enrollment. He pointed to the lack of generalizability of his findings across different intersectional subgroups including Black women who must navigate uniquely racialized and gendered discourses (e.g., crack mothers, welfare queens). He also acknowledged the generative opportunities of framing future PAR research in "broader theoretical discussion of constructed academic identities vis-à-vis Black masculinity" (p. 96). I argue that this opportunity can be extended to mathematics education research more broadly to provide insight into the gendered variation among women and men of color in making meaning of racialized experiences in mathematics and society. This call for analytical attention to notions of Black masculinity captures the need for not only more intersectional understandings of mathematics as "racialized forms of experience" (Martin, 2006, p. 198), but also theorizations of gender as a non-binary

[4] Here, I use the term *Black* rather than *African American* to be consistent with the cited authors' language choice. McGee and Martin (2011) acknowledged the variation in racial identity within the group descriptor Black in relation to cultural background and nation of origin. Black refers to a group of multigenerational individuals that can include those born in the United States and those who immigrated to the United States (Clark, 2010; Swarns, 2004). The term African American refers to a subgroup of Black individuals tied to a history of slavery and struggles for civil rights in the United States (Joseph, Hailu, & Boston, in press). I use the term African American throughout the remainder of the article to remain consistent with the participants' racial self-identifications.

social construct and thus shaped by other vectors of identity. This intersectional analysis would be an advancement of the sex-based conceptualizations of gender across much CRT work in mathematics education that leaves implicit how participants' mathematics experiences are shaped by the dynamic interplay of race, gender, and other social identities (Leyva, in press).

Intersectionality has also been minimally examined outside of CRT work in mathematics education to better understand achievement and experiences among marginalized populations in mathematics. Scholars, in addition to issues of race, have examined mathematics as a gendered space in light of women's underachievement and underrepresentation as well as the valuing of heteronormatively masculinized norms of mathematical engagement (Barnes, 2000; Boaler, 2002; Fennema et al., 1998; Mendick, 2006). Elsewhere, I reviewed research on gender in mathematics education to document how the majority of this extant work problematically conflated gender with biological sex as well as minimally attended to gendered variation in mathematics achievement and participation at different intersections of identity (Leyva, in press).

It is important to take note, however, of research studies that were exceptions to this lack of intersectional considerations for sex and gender, including works which highlighted influences of race and ethnicity (Birenbaum & Nasser, 2006; Brandon, Newton, & Hammond, 1987; Riegle-Crumb & Humphries, 2012; Stanic & Hart, 1995), culture (Hanna, 1989; Oppland-Cordell, 2014), class (Lubienski, 2002; McGraw, Lubienski, & Strutchens, 2006), and sexuality (Esmonde et al., 2009). Such intersectional insights not only challenged the long-standing discourse of male superiority in mathematics, but also captured the affordances of coupling quantitative and qualitative insights to detail how the social construction of gender gives rise to variation in mathematics achievement and participation among marginalized groups.

Intersectionality and Women of Color in Undergraduate STEM Education

Intersectionality has been largely taken up in research that explores equity issues in STEM higher education with a strong focus on the experiences of women of color. The summer 2011 issue of the *Harvard Educational Review* (Malcom & Malcom, 2011) for example, featured an assortment of works about women of color in STEM higher education including a quantitative analysis of STEM persistence predictors compared to White women (Espinosa, 2011) and an interview study detailing challenges in transferring from community colleges to 4-year universities as STEM majors (Reyes, 2011). These works raised implications for higher education institutions in carving opportunities that attend to the intersectionality of being a woman of color in STEM, including active recruitment in undergraduate research programs, building community with other minoritized women in and out of STEM classrooms, and professional development for STEM faculty to better inform teaching based on the needs and experiences of women of color.

Camacho and Lord (2013) pursued a more focused intersectional analysis specifically on the gendered and racialized experiences of Latinas[5] navigating the exclusionary culture of undergraduate engineering education. In reflecting on their findings about Latinas managing microaggressions[6] of academic ability and establishing counter-spaces, Camacho and Lord (2013) echoed Espinosa's (2011) and Reyes' (2011) calls for change in higher education that attends to the intersectionality of Latinas' experiences particularly through rethinking recruitment, mentorship, and co-curricular program design.

Looking across these intersectional analyses of student experiences in undergraduate STEM education, I argue that there remains analytical space to leverage intersectionality as a tool to detail the culture of undergraduate mathematics and document marginalized students' strategies in navigating this space as well as the role of institutional agents for student support. Such intersectional analyses are particularly important to consider for underrepresented students during their first year of undergraduate studies in light of the academic, social, and affective challenges that they encounter during their transition into STEM majors (Crisp, Nora, & Taggart, 2009; Hurtado, Newman, Tran, & Chang, 2010; Reyes, 2011). More specifically, an intersectional analysis of the mathematics experiences among women of color, including Latin@ women, during their first year of undergraduate STEM studies will add insights to the field of mathematics education—a space with minimal work on the intersectionality of experience among women of color and a recent call for equity research at the undergraduate level (Rasmussen & Wawro, in press).

Theoretical Perspectives

In this section, I elaborate the theoretical perspectives that informed data collection and analysis. Race is conceptualized as a social construct that intersects with property rights giving rise to systemic inequalities (including education) in the United States among people of color (Ladson-Billings & Tate, 1995). Gender is theorized as a social construct discursively produced or performed differently across individuals and contexts (Butler, 1990). The theoretical perspective of intersectionality was adopted to detail the Latin@ women's strategies in navigating institutional structures and interper-

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[5] I use the term Latina here to remain consistent with Camacho and Lord (2013)'s adopted language in their study.

[6] Microaggressions are defined as everyday communicative actions or verbal expressions that may or may not intentionally slight target or marginalized individuals (Sue, 2010). Macroaggresions are broader communicative acts toward target or marginalized individuals on systemic rather than individual levels (Sue et al., 2007).

sonal relationships that shape mathematics as a socially exclusionary space at different intersections of social identities. Poststructural theory guided the detailing of discourses raised in participants' negotiations of their mathematics experiences and identities as Latin@ women pursuing mathematics-intensive STEM majors before and during their first college year at a large, predominantly White university.

Intersectionality and Critical Theories

As previously discussed, intersectionality (Crenshaw, 1989, 1991) is a theoretical perspective from Black feminist thought that considers how intersections of race, gender, class, and other social identities shape marginalized individuals' narratives of oppression and resistance. It serves as a tenet of CRT, Latin@ critical race theory (LatCrit), critical race feminism (CRF), and various other subfields of critical theory. CRT applied to education addresses the "centrality of race and racism and their intersectionality with other forms of subordination" (Solórzano, Ceja, & Yosso, 2000, p. 63) such as sexism and classism in schools and classrooms. Intersectionality in educational research framed by CRT, therefore, "challenges the separate discourses on race, gender, and class by showing how these three elements intersect to affect the experiences of students of color" (Solórzano & Yosso, 2002, p. 24). Race, class, and gender are three of the many intersecting social categories that can be considered in detailing intersectionality of experiences in education and society (Collins, 2000a, 2000b; Crenshaw, 1991).

LatCrit, a "theoretical cousin" to CRT, addresses the intersectionality particularly among Latin@s with analytical considerations of experience at intersections of race, sex, gender, class, and other social dimensions (Solórzano & Delgado Bernal, 2001). LatCrit, therefore, complements CRT by considering issues of culture, immigration, and language among Latin@s that often go unexplored in CRT (Delgado Bernal, 2002). Similar to LatCrit, CRF is another theoretical offshoot from CRT that foregrounds the intersectional experiences of marginalization and empowerment particularly among women of color (Wing, 2000). CRF serves as a "feminist intervention within CRT" (Wing, 2000, p. 7) that uses an anti-essentialist lens to examine the experiences of women of color not only as distinct from those of men of color, but also widely variable at different intersections of identities including race, gender, class, and sexuality. The use of internationality theory in this study, therefore, allowed me to leverage the complementary nature of CRT, LatCrit, and CRF to center the Latin@ women's voices as well as detail the intersectional variation in their mathematics experiences at institutional, interpersonal, and ideological levels of analysis.

Poststructural Theory

Poststructural theory's conceptualizations of *discourse* and *power* were used to frame the analysis of Latin@ women's counter-stories. A discourse is a "historically, socially, and institutionally specific structure of statements, terms, categories, and beliefs" (Scott, 1988, p. 35). Discourses structure behavior and language in ways that highlight the "surface linkages between power, knowledge, institutions, [and] intellectuals… as these intersect in the functions of systems of thought" (P. A. Bové, as quoted in St. Pierre, 1990, p. 54). In this study, discourses refer to norms and behaviors of mathematics ability and STEM higher education structured by racism, sexism, and other intersecting systems of oppression that shape the mathematics experiences of marginalized student populations including Latin@ women.

Power is theorized as multiple systems of relations in constant flux across individuals and contexts (Foucault, 1997/1984). Halperin (1995) writes, "Power is thus a dynamic *situation*, whether personal, social, or institutional" (p. 17, emphasis in original). Discourses are, therefore, contextual manifestations of these varying power relations that inform one's positioning across the intersecting systems at different moments. Foucauldian thought asserts that power comes with resistance in which strategic moves are adopted in reaction to sociocultural discourses of opportunity and oppression. Such agency in these reactions, however, is within limits maintained by these power relations that perpetuate the status quo in society (St. Pierre, 2000). Drawing on Martin's (2009) and Mendick's (2006) scholarship, this study theorizes mathematics as a source of power that structures a hierarchy of ability aligned with society's inequitable opportunities for dominant and marginalized groups.

In poststructural theory, individuals are conceptualized as discursive subjects whose identities are socially constructed through their negotiations of sociocultural discourses and power relations (St. Pierre, 2000; Walkerdine, 1990). Individuals' identities, therefore, are in a perpetual state of flux and produced as discursive responses to dynamically changing power relations in everyday society. Poststructural theory goes further to describe how identities and systems of meaning are mutually produced with such "meaning[s]… strategically reinterpreted, reworked, and deferred since there is no referent for the subject" (St. Pierre, 2000, p. 503).

Using a sociocultural lens, Martin (2006) defines mathematics identity as—

> dispositions and deeply held beliefs that individuals develop, within their overall self-concept, about their ability to participate and perform effectively in mathematical contexts…. A mathematics identity encompasses a person's self-understanding of himself or herself in the context of doing mathematics. (p. 206)

By applying a poststructural lens to Martin's (2006) definition, mathematics identities are social constructions constantly negotiated across different contexts in response to discourses shaped by intersecting systems of oppression such as racism, sexism, classism, and heteronormativity (see, e.g., Berry, Thunder, & McClain, 2011; Boaler & Greeno, 2000; Esmonde, 2009; Mendick, 2006; Stinson, 2008). Individuals as multidimensional beings construct their mathematics identities at junctures of multiple yet often contradictory discourses upheld by institutions (e.g., schools, mathematics classrooms), other individuals (e.g., peers, teachers), and society (Barnes, 2000; Stinson, 2008). The nature of individuals' negotiations of these discourses varies when attending to different intersections of identity dimensions including class, culture, gender, race, and sexuality. Mendick (2006) and Stinson (2008), for example, detailed how students are constantly negotiating gendered and racial discursive binaries of mathematics ability including "masculine/feminine" and "White/Black," respectively, with masculinity and whiteness mapping onto mathematics ability. Stinson (2008) went further to highlight the complexity of such discursive negotiations by describing how "[discursive] subjects live at *intersections* of these binaries" (p. 992, emphasis added) with the saliency of binary dimensions varying across contexts and individuals. These negotiating practices inform the study's intersectional analysis used to examine Latin@ college women's experiences and thus detail how they co-constructed their social and mathematics identities as responses to discourses in mathematics, STEM higher education, and society.

Overall, these theoretical perspectives collectively informed the study's methodology that addresses the need for scholarship in mathematics education exploring the intersectionality of mathematics experience among historically marginalized student populations. More specifically, these perspectives were applied to closely examine two Latin@ women's co-constructions of their mathematics and social identities by making meaning of their mathematics experiences in relation to discourses that are gendered, racialized, classed, and so on. This study, therefore, examined how in engaging with these discourses, the two Latin@ women differentially negotiated their positions along the hierarchy of mathematics ability across contexts and at different intersections of their social identities. Such discursive negotiations offered insight into the Latin@ women's success-oriented beliefs and strategies in navigating these discourses encountered institutionally and interpersonally throughout their mathematics experiences.

Methods

CRT informed the study design including the analytical construction of the two Latin@ women's counter-stories. The counter-storytelling methodology is an analytical approach to "telling the stories of people whose experiences are often not told (i.e., those on the margins of society)" (Solórzano & Yosso, 2002, p. 32). While counter-stories can be narratives that challenge dominant discourses of marginalized groups in society, they can also be what Solórzano and Yosso (2002) call "unheard counter-stories" (p. 32) that may not necessarily push back on these discourses yet still offer insight into individuals' strategies of survival and resistance in navigating sociopolitical contexts. The counter-story analysis presented here attends to both kinds of narratives of experience shared by the Latin@ women that either did or did not challenge discourses in mathematics and STEM higher education.

Solórzano and Yosso (2002) identified three types of counter-stories: (a) personal stories or narratives, (b) other people's stories or narratives, and (c) composite stories or narratives. Counter-stories presented in this analysis are based on other people's stories or narratives—namely, the two Latin@ college women's reflections on navigating mathematics as a socially exclusionary space. The construction of their counter-stories was aligned with Solórzano and Yosso's outline of the four functions that counter-storytelling methodology serves: (a) building community among members of marginalized groups, (b) challenging dominant discourses to transform established societal beliefs, (c) presenting different realities of marginalization to individuals with shared forms of oppression, and (d) constructing another world richer than the counter-story and lived experience alone can provide.

With a poststructural analysis and sociocultural view of mathematics identities, I examined the Latin@ women's counter-stories as discursive productions mapping onto instances of disconnect and marginalization as well as affirmation and empowerment that impacted the co-construction of their mathematics and social identities (Martin, 2009). The coupling of poststructural theory and CRT's counter-storytelling, therefore, guided the detailing of racial, gendered, and other discourses across the Latin@ women's counter-stories that were raised to make meaning of their mathematics experiences. The analysis, therefore, attended to the varying influences of these discourses across institutional contexts and interpersonal relationships as the Latin@ women made meaning of their experiences. Intersectionality, as a tenet of CRT and other critical theories that frame the analysis, allowed for highlighting the variation across the Latin@ women's discursive moves in these identity constructions including beliefs and strategies that they adopted to navigate them at intersections of gender, race, and other social identities.

A qualitative case study methodology (Miles & Huberman, 1994; Yin, 2003) was employed such that the Latin@ women's counter-stories were the "cases," or units of analysis, used in detailing the extent to which mathematics was a socially exclusionary experience for them. In efforts to gain holistic accounts of the Latin@ women's mathematics experiences, their counter-stories were constructed by looking across multiple data sources including mathematics autobiographies, individual interviews, and focus group discussions. These counter-stories addressed the research questions by exploring what were the dominant discourses raised, when and where the Latin@ women encountered them, and how they similarly and uniquely navigated them in co-constructing their mathematics and social identities.

Research Context

I began conducting the study in spring 2013 at a large, public 4-year university located in the northeastern United States. According to the university's 2013 institutional profile, African Americans and Latin@s comprised less than a quarter of the fall 2012 undergraduate student population. Latin@s made up about 13% of full-time students in fall 2012. Men and women in general enrolled at the university at comparable rates.

Of the undergraduate population in their first year during fall 2006, Latin@s graduated from the university within 4 years at a rate of 34%. African Americans and Latin@s earned baccalaureate degrees at rates ranging between 10 and 15% by the end of the 2011–2012 school year. Considering only about 10% of the university's conferred degrees were in STEM, an even smaller percentage of these degrees were conferred to Latin@s. African Americans and Latin@s comprised about 6% of the university's full-time faculty in fall 2012. Latin@ women were least represented among full-time faculty members, a total of 26 with and without tenure in fall 2012.

Participants

Eight first-year college students pursuing mathematics-intensive majors at the same university were recruited for the research study. The term *first-year* is used as a descriptor of the participants' first year of university enrollment. This included two African American women, two African American men, two Latin@ women, and two Latin@ men. Participants were drawn from a STEM support program at the university. The program's support services focused on providing underrepresented college students with co-curricular activities and networking opportunities to advance their academic and professional development in STEM. By the start of data collection, participants had taken at least one college mathematics course (e.g., pre-calculus, calculus) during their first semester.

This article focuses on findings related to the two Latin@ women participants, Lauren and Tracey (pseudonyms). To address the research questions, Lauren's and Tracey's counter-stories are presented as cases with each offering a rich and unique account of the intersectionality of experience for a Latin@ woman in mathematics and STEM higher education. The cross-case analysis, presented later, was conducted with the intent to detail similarities as well as differences between Lauren's and Tracey's individual experiences. It should be noted that my analytical focus on Latin@ women's mathematics experiences is not intended to perpetuate notions of intersectionality as being solely about issues pertaining to women of color. Rather, it addresses an intersectionality of experience minimally discussed in the mathematics education literature while attending to Crenshaw's (1991) discussion of how other social identities besides race and gender (e.g., class, culture, immigration) shaped the two Latin@ women's oppression and empowerment in mathematics.

The following table presents profiles for Lauren and Tracey. This table outlines participants' pursued STEM majors, high school student demographics, most recently completed college mathematics course, and career goals. Participants' initial STEM major interests continued throughout the study. The variation across the two participants' high school demographics is noteworthy especially when considering their respective experiences of transitioning into a predominantly White university space. Along with taking calculus during her first semester, Tracey had prior calculus experience in high school and a summer bridge program for incoming STEM students at the university.

Table 1
Participant Profiles

Name	Race/Gender	STEM Major	High School Demographics	Completed College Mathematics	Career Goals
Lauren	Latin@ woman	Computer Science	Predominantly White	Advanced Pre-calculus	Undecided
Tracey	Latin@ woman	Mathematics	Predominantly Latin@	Calculus I for STEM majors	High school mathematics teacher

Data Collection

Three data sources were used to construct the first-year Latin@ college women's counter-stories: (a) mathematics autobiographies, (b) individual interviews, and (c) focus group discussions. In this section, I discuss the nature of each data source and how it contributed to answering the research questions on mathematics as a socially exclusionary experience for the Latin@ college women participants.

To layer the data collection, excerpts from participants' mathematics autobiographies were incorporated into individual interviews and focus group discussions to clarify and probe meanings of key statements. This sequential data collection reinforced and provided more nuance of findings throughout the study.

Mathematics autobiographies. Participants wrote two- to three-paragraph autobiographies on their mathematics experiences during high school and college. They reflected on their favorite and least favorite mathematics courses with details on the nature of their participation, relationships with teachers, and classroom structures and interactions. Participants provided similar reflections on their most recently completed college mathematics courses.

The mathematics autobiographies were submitted prior to participants' individual interviews. Stimulus excerpts were used during interviews to probe participants about connections between their mathematics experiences and being a Latin@ woman. In addition, high school and college mathematics reflections were used to probe participants on what being successful looked like across these contexts, how these messages of mathematics success were communicated, and what strategies they employed to meet these standards of success.

Individual interviews. Each participant completed a 90-minute, semi-structured individual interview focused on four themes about their mathematics experiences, including high school, college courses, STEM support program participation, and views on women and racially minoritized groups in mathematics and STEM at large. Interviews were audiotaped and transcribed. Excerpts from the mathematics autobiographies were used to examine gendered, racialized, and other social influences on high school and college mathematics experiences. Some questions used to probe these dynamics included: “How do you feel as though Latin@ women are encouraged or discouraged from pursuing mathematics?” and “Why do you think so many fellow Latin@ women like yourself do not make it in mathematics?”

Focus group discussions. After the interview, participants completed a focus group discussion with three other participants to motivate peer discussions on African American and Latin@ women and men in mathematics and STEM at large. Each focus group participant was paired with another participant of the same intersectional identity. These pairings were intended to establish welcoming discussion environments so participants would not feel tokened and could possibly relate to at least one other participant’s shared perspectives while also highlighting differences between their experiences. Finally, by having two different intersectional identities represented, this focused the analysis on similarities and differences between intersectional groups as well. Focus group discussions were audiotaped and transcribed.

During each focus group discussion, participants were presented with five mathematics student narrative excerpts from four mathematics education articles on marginalized students’ mathematics experiences (Berry et al., 2011; Lombardi, 2011; Mendick, 2005; Stinson, 2008). Participants were asked to read these five excerpts and select one or two with which they either strongly associated or disassociated based on their experiences. These excerpts, drawing on Stinson’s (2008) methodology, provided participants with language to engage in expressive, critical conversations surrounding social issues in mathematics. Participants were probed for gendered, racialized, and other social significance in their reactions to the stimulus narrative excerpts. Some probing questions included: “To what extent does diversity play a role in your college mathematics experiences at the university?” and “What are some examples from your high school and college experience when you felt your mathematics ability was judged based on your gender and/or race?”

In addition, participants were asked to discuss issues regarding African American and Latin@ women’s and men’s current underrepresentation as well as these groups’ projected future participation and success in STEM. Latin@ college women participants were presented with questions such as “How has your STEM support program involvement, if at all, influenced how you see yourself as a Latin@

college woman in STEM?' and "As a Latin@ college woman pursuing a mathematics-intensive STEM degree, how do you see the future of women and underrepresented minorities in STEM including mathematics? What ideas or experiences bring you to raise this claim about the future diversity of STEM?"

Data Analysis

Connections across these three data sources were used to write counter-stories of the Latin@ women's mathematics experiences. Intersectionality guided a cross-case theme analysis to examine patterns in the first-year Latin@ college women's constructions of mathematics identities as responses to discourses related to intersections of gender, race, and other identities (Miles & Huberman, 1994).

Using poststructural and intersectional lenses of analysis, the counter-stories were openly coded for discourses specific to mathematics ability and STEM higher education (Bowleg, 2008). Axial codes were used to identify institutional and interpersonal contexts in which participants encountered these discourses as well as the strategies adopted for navigating them (Strauss & Corbin, 1998). (See Leyva [2016] for full details of coding.)

One of the key aspects of intersectional analysis in qualitative research is making participants' implicit experiences of intersectionality explicit, including when participants do not report them (Bowleg, 2008). Counter-stories, therefore, were examined for "subtexts" of how participants discursively constructed meanings of their mathematics experiences particularly at the intersections of gender, race, and other social identities (Banning, 1999). Open and axial coding of counter-stories and their subtexts served to illuminate the intersectionality across participants' discursive negotiations of mathematics as a socially exclusionary experience.

Analytical memos were written throughout the data collection and analysis processes. Memos were dated to trace the development of data interpretations including possible themes, areas of needed clarification, and key connections to the research literature. Memos and annotated transcripts were used to develop the open and axial coding schemes and strengthen the rigor of the findings.

A colleague independently coded excerpts from the transcribed data to confirm the accuracy of the open and axial coding schemes. This colleague was provided a detailed codebook containing descriptions and sample instances of each open and axial code. An assortment of excerpts corresponding to different open and axial codes was selected for this independent coding task. Any coding disagreements were discussed during code reconciliation meetings until they were resolved and necessary coding scheme adjustments were made.

Member checking the accuracy of the transcripts, coding scheme, and data interpretations was also completed (Creswell & Miller, 2000). Two member checks were held with participants in spring 2013. I structured the member checks as informal group conversations where participants, as "authors of their own experiences," were positioned as experts whose critiques and recommendations to strengthen the rigor of my analysis were welcomed. Participants were presented with coded excerpts across data sources and asked to reflect on the accuracy in terms of transcription and interpretations. Some questions used to structure the member checks included: "Did the applied codes accurately reflect the nature of influences that shaped the mathematics experiences shared in these excerpts?" "Are the strategies that I claimed you adopted in being a mathematics student accurate?" and "Is there anything that you think should be added to the coding scheme or my interpretations that is a critical part of your experience as a Latin@ women in mathematics?"

The member checks informed necessary revisions to the coding scheme and preliminary findings. Disagreements during member checks about codes and interpretations were discussed until resolved. If the disagreement stemmed from a participant wanting something from her experience to be captured, I incorporated these comments into the final write up of her counter-story. If any coding or interpretation disagreement was unresolved, it was not included in the analysis.

Researcher identity, positionality, and trustworthiness. As a Latin@ man who graduated as a mathematics major and researches mathematics experiences of underrepresented populations in STEM, I brought an understanding of my positionality in pursuing data analysis and interpretations with strong subjectivity to develop nuanced understandings of mathematics as a socially exclusionary experience. I was aware that my Latin@ identity allowed me to relate to feelings of underrepresentation, academic disadvantage, and struggle that participants as students of color may have experienced with mathematics and STEM higher education.

Mutual identification with participants as a person of color who also pursued a mathematics-intensive STEM major allowed for the establishment of intersubjectivity that built positive rapport and trustworthiness (Glesne & Peshkin, 1999; Lincoln & Guba, 1999). As a 4-year employee in the university office overseeing the STEM support program, I approached the study with strong familiarity of the program and ongoing visibility to student members during monthly meetings and events. Such participant–researcher connection captures the use of my "multiple identities as an interaction quality" (Berry, 2008, p. 472) to create welcoming spaces for the first-year Latin@ college women to share and reflect on their mathematics experiences.

Despite these mutual understandings of experience, I also acknowledge my gendered privilege and varying social distance from the Latin@ women participants in experiencing mathematics as a man. Awareness of my shifting positionality throughout the study played an important role in identifying moments "where self and study were intertwined" (Stinson, 2008, p. 987). Thus, consciousness of my positionality as a Latin@ man in mathematics allowed me to connect in different ways with the Latin@ women as well as be willing and open to learn from them.

Findings

I organize this section by first presenting the two cases, Lauren's and Tracey's counter-stories. Each case begins with an overview of each Latin@ college women participant's connections to mathematics, including reflections on her favorite and least favorite mathematics courses. The two counter-stories focus on the intersectionality of Lauren's and Tracey's experiences as Latin@ women studying mathematics in high school and at the university. They were constructed to detail institutional and interpersonal contexts in which Lauren and Tracey encountered discourses of mathematics ability and STEM higher education. The counter-stories also describe the success-oriented beliefs and strategies that they adopted in negotiating their identities as Latin@ women in mathematics with these discourses.

I then present a cross-case theme analysis of Lauren's and Tracey's counter-stories. I organized the analysis by four identified discourses across the counter-stories. The theoretical and methodological principles of intersectionality guide this cross-case analysis by highlighting both common and distinct experiences of marginalization and empowerment as Latin@ women in mathematics at intersections of gender, race, culture, class, and immigration.

Lauren's Counter-story

Lauren is a first-generation, El Salvadoran-American woman pursuing a computer science major. Her interest in computer science began when her high school accounting teacher took note of her mathematical problem-solving skills and connected her with the school's computer science teacher. She saw herself as "always good at math." While a shy student across classroom spaces, Lauren's mathematics ability brought her to feel more comfortable in high school mathematics courses where it was "okay for [her] to talk." Lauren described how classmates would comment on her being less engaged during mathematics classes, which she saw as being related to her "natural" mathematics ability:

> A lot of the times students would tell me or classmates would say like, "You barely pay attention but you get good grades"; and that'd be true like I really would be on my phone for the whole class and I would pay attention and I'd do my homework and all that, but I would get good grades 'cause it came naturally to me. (Individual Interview)

Lauren positioned herself as not needing to invest as much effort in paying attention during class as her classmates because of her innate mathematics ability. She also distinguished herself from peers whose lack of natural mathematics ability may have brought them to struggle with understanding the subject and thus not like mathematics. Lauren commented: "I feel like it's not hard to understand math, but maybe that's just me because I get it. Maybe if I didn't get it, I wouldn't be saying the same thing."

Favorite and least favorite mathematics courses. A supportive relationship with teachers was the defining quality of Lauren's more favorable mathematics course experiences. Algebra II Honors, for example, was Lauren's favorite high school mathematics course in light of her "friendly relationship" with her teacher. Lauren described how her teacher genuinely cared for his students. He also "did not give up on any student" even when they expressed struggles with the course material.

Along with establishing a positive connection with her teacher, Lauren reflected on working well with Algebra II classmates who enjoyed mathematics like her as opposed to those who seemed to not care about mathematics as much:

> Some of them didn't want to learn math or didn't much care much for math so it was like hard with them. But others—they enjoyed math as much as me or as I did so it was easy [with them]…. Some of the students didn't really engage. Like they didn't just want to be there. Maybe because they didn't like math. (Individual Interview)

Here we see how Lauren separates fellow students into two groups—namely, those who like mathematics (including herself) and then those who do not. Lauren acknowledged the important role that one-on-one teacher attention can play in helping students understand mathematics and thus influence their liking of the subject. According to Lauren, "If [a] person who said they don't like math, if they had an individual person teaching them instead of being in a big class, they would understand it." This statement captures how, in spite of viewing mathematics ability as innate and possibly tied to one's affect toward the subject, Lauren perceived teachers as being able to facilitate students' understandings of the content and appreciation of mathematics. A notable tension, therefore, resides in Lauren's reflections on mathematics ability—namely, between views of it being innate and natural and views of it being developed through teaching and student learning.

Pre-calculus was Lauren's least favorite high school mathematics course. She shared how her pre-calculus teacher lacked a "consistent method of teaching" characterized by inaccurate assumptions of what students already knew and a "fast pace" without re-visiting earlier concepts. The teacher's instructional approach, therefore, contrasted with that of Lauren's Algebra II Honors teacher who "would stop and ask if everyone understood what he was doing…so rarely did anyone not understand his [teaching] method."

Lauren, therefore, also valued mathematics teaching that focused on student understanding during high school. Although Lauren saw herself in the same position as her pre-calculus classmates as not learning much, she set herself apart as being less affected by her teacher's poor instruction than other "students [for] who…it takes a long time for them to get math." It is noteworthy how Lauren draws on her natural mathematics ability to distance herself from struggling peers across two mathematics courses with contrasting instructional approaches.

This distinction between her and her peers' mathematics classroom experiences is also observed in Lauren's discussion of her relationship with the pre-calculus teacher. Although the pre-calculus teacher seemed "really nice" in her teaching and cultivated a "friendly environment" in the classroom, Lauren described how she was not approachable in the context of seeking extra help by negatively judging students who struggled.

Nonetheless, Lauren saw herself having a relational advantage over classmates because she felt as though mathematics teachers established stronger connections with students who were "good at math" like her. Lauren remarked, "When you're good at math, teachers find that they enjoy talking to you more because you have that connection like you can relate." She saw the pre-calculus teacher as seeming to have "really liked the fact that [she] liked math" yet was firmer with her than other students with lower levels of mathematics ability. Lauren, therefore, perceived her mathematics ability as affording her status in pre-calculus that allowed her to receive higher-quality and more rigorous support from teachers. The relational spaces of mathematics classrooms (including quality of instruction and student support) coupled with views of mathematics ability as innate or developed, thus, largely shaped Lauren's reflections of her favorite and least favorite mathematics courses.

Peers and family. During high school, Lauren was subjected to peer comments particularly from Latin@ boys about Latin@ women not being good at mathematics or expected to go to college. She looked back on how these boys would often make remarks to Latin@ girls who were also young mothers such as "You should be at home taking care of the kids" when they saw them in class or thinking about applying to colleges. Below Lauren reflects on Latin@ boys' remarks about Latin@ girls and mathematics:

> Like all of the Hispanics like my friends they would say things like even to us—their friends—like "Oh you shouldn't be going to college or trying to be good at math" cause they just think that it's not normal for a girl to be good at math especially a Latina girl. (Focus Group Discussion)

Lauren explained how these comments seemed to originate from parents' and older generations' gendered division of labor in the Latin@ household. For example, she described how her older family members upheld values where "the men worked and the women stayed at home" based on times of their upbringing. Despite hearing high school peers' disparaging remarks and living in a household with gendered family roles, Lauren shared how this did not impact her academic pursuits because her family still encouraged her to "break that tradition" and pursue a college degree. Lauren distinguished her family's academic encouragement with many other Latin@ family situations that perpetuate traditional cultural expectations of women becoming mothers and wives rather than pursuing a college education.

Upon graduating from high school, Lauren did not see fellow Latin@ graduates trying hard to advance academically or professionally. She described how it was "really disappointing" that most of her Latin@ high school peers seemed complacent with receiving a high school diploma and "not really doing anything" like seeking higher education. She alluded to also observing such forms of complacency among her Latin@ family members, particularly, her older cousins:

> A lot of my older cousins are living their life with a job and not having much of school besides a high school diploma…. I feel like they will begin to see that you can live a life with a degree and more comfortably. And my aunts and uncles, that's what they would like for their children and I feel like they will end up pursuing school because they know it leads to a better future. So that's what I'm hoping: that Latinos will start getting involved more [in STEM]. (Individual Interview)

Here we see how Lauren's older cousins receive forms of academic encouragement from her aunts and uncles about pursuing higher education similar to that which she receives from family to disrupt ideas of Latin@ girls not receiving college degrees.

Lauren, furthermore, seems to use this example about her older cousins to illustrate a way in which Latin@s can increase their participation in STEM. She saw her pursuits of a STEM degree as a first-generation college student serving as an opportunity to be a "role model" for younger family members:

> I am the first generation…to go to college in my family so obviously the older people like they are doing their own thing. They are not going to college so that doesn't influence or impact them. But the younger ones like my nephews, my nieces, my cousins, they still have time so I feel like I would just like to be their role model so they can feel like they can do it as well…. Hopefully they'll go into STEM. (Individual Interview)

In this excerpt, Lauren discussed how being a role model in her family would allow younger relatives to see another Latin@ pursuing STEM and thus be encouraged to feel like they can do the same. She perceives such academic encouragement in her family for pursuing STEM higher education as a way to increase Latin@s' representation in STEM and thus "become a majority in these fields." Family, therefore, plays an important role for Lauren in managing peers' disparaging comments about Latin@ girls as well as perceiving the value of higher education for broadening Latin@s' participation in STEM.

First year of college. At the university, Lauren enjoyed her advanced precalculus course with a professor and teaching assistant who "wanted everyone to do well." She reflected on how the professor's "friendly" nature and one-on-one support opportunities may have largely motivated students' office hour participation, which she viewed as uncommon across her university courses. It is noteworthy how

Lauren's positive experience with college pre-calculus aligned with her preferred aspects of high school mathematics—namely, teachers with a "friendly" nature as well as classroom instruction structured for student learning and support.

It was during college calculus, however, when Lauren reconsidered her pursuits of a computer science major. Lauren mainly attributed her reconsideration to her struggles in learning calculus due to the quality of her professor's teaching. She described how she was doing "not as good as [she] should be" in calculus because she was unable to connect with the calculus professor's teaching and felt less engaged in class compared to her high school years:

> That's partly because I rely a lot on the teacher and if I feel like the teacher isn't teaching then well I kind of slack…. I don't answer questions or ask questions either…. And it's not because I'm not comfortable with the people around me, but it's like I'm not comfortable with the teacher 'cause I know that if I ask him, he'll explain it to me and I still won't understand it. (Individual Interview)

Despite Lauren's claim of mathematics "coming naturally" to her, it is interesting to consider how she saw herself struggling in calculus because she depends on teachers to be successful.

Her calculus professor's teaching, therefore, brought Lauren to resort to teaching herself the material by reading the textbook and seeking help from other students in her first-year, all-women residence hall. These actions made Lauren feel "overwhelmed with math" as well as fearful that she will always be teaching herself and, in turn, stop liking mathematics:

> I don't want to have to be in too many classes that it's too much for me to handle or that I don't enjoy to do it anymore. It kind of scares me. I don't want to ever feel like I'll be bad at math. Right now in calc, there is a possibility that I'll learn it and that I understand it but I don't want to have to like continue to having to teach myself like that. (Individual Interview)

Lauren's calculus experience brought her to feel as though she would face similar struggles throughout the remainder of her college mathematics coursework to the point of no longer liking and feeling like she was bad at mathematics. Although Lauren previously experienced disagreeable instruction and an unapproachable mathematics teacher in high school, these high school experiences did not cause her to think that she would stop being good at or enjoying mathematics as much as it did during college.

When asked to identify an either positive or negative turning point in her experience as a mathematics student, Lauren reflected on how college calculus brought her to fear that she would have to possibly compensate for her future mathematics professors' limited teaching abilities:

> The professors—they may be great at math or like really good at math but I don't feel like teaching is their thing.… It kinda scares me that I'll forever be like teaching myself and I don't want to have to like have to teach myself even though a lot of students do it. (Individual Interview)

Lauren's idea of being naturally good at mathematics coupled with how teaching herself was not resulting in better grades led her to question continuing the computer science major. It is important to note how Lauren distinguished becoming "less interested in mathematics" and the process of "teach[ing] herself." This distinction is important because it captures how Lauren did not disassociate with mathematics, but rather the idea of learning mathematics without receiving teacher support—a defining quality of her more favorable mathematics courses. Lauren's reconsiderations, therefore, do not arise from seeing herself as mathematically incapable, but rather from exercising her agency to avoid situations like teaching herself that jeopardize her confidence and enjoyment of mathematics.

Another observed difference between Lauren's high school and college mathematics experiences was the salience of her gender identity as a woman in STEM classrooms. Lauren reflected on often being the only or one of the only women in her college courses. For example, she saw student enrollment in her computer science courses as racially diverse but being less balanced between boys and girls with her often being the "only girl." Lauren then went on to contrast this with her high school mathematics experience:

> Yeah, I guess I experienced it differently than like in my high school. The math department was really split up. Like there was both female teachers and male teachers. I don't feel like it was a gender thing. I mean like it probably would come out if there were more male teachers, but because there was female teachers, I don't think the gender thing was that much of a thing or a big problem. (Focus Group Discussion)

Lauren perceived the presence of women as mathematics teachers in her high school serving as a way of showing students, particularly the boys, that "a female can do it [mathematics] too" and thus reduced possible "tension…with females" in mathematics. Thus, the noted contrast of gender representation Lauren to feel as though issues of gender in mathematics and STEM were more salient in college than in high school.

During her first college year, Lauren took a women's leadership course where she came across statistics indicating that Latin@ women were the most underrepresented group in STEM. Lauren attributed these statistics to Latin@ women "lack[ing] the encouragement" and how they "weren't mentored enough" to pursue STEM including mathematics. In contrast to remarks of Latin@ women not being good at mathematics that Lauren encountered during high school, she rationalizes Latin@ women's underrepresentation in terms of not receiving adequate forms of support allowing them to feel that they can do it. For example, Lauren commented on how other Latin@ girls may not consider doing mathematics due to lack of encouragement from their families:

> I don't really think that they [Latin@ girls] find like it's an option for them. Maybe they feel they should be more like in the liberal arts or…doing something else. Like they don't really consider math. But then maybe they weren't taught that they could do math. Like their parents might say like, "You can't do math. What are you gonna do with that?" (Individual Interview)

It is important to consider how Lauren's explanation of Latin@ girls' underrepresentation in STEM aligns with her experience of receiving academic encouragement from family to pursue STEM higher education as a Latin@ woman.

Tracey's Counter-story

Tracey is a Cuban-American woman pursuing a double major in mathematics and theater arts to become a high school mathematics teacher. She saw mathematics as "what [she] was good at" and "made [her] confident. Tracey reflected on how helping peers in high school affirmed her ability and confidence in mathematics. Her confidence, however, was challenged as a high school sophomore when she received a C in her Algebra II Honors course that brought her to perceive success in mathematics as a matter of hard work rather than natural ability. Tracey recalled thinking to herself: "I'm not going to get good at this if I don't take time out of my day [to study]. I can't just rely on the fact that 'Oh, I'm good.' I have to work on being good." The Algebra II Honors course grade, therefore, served as a turning point in Tracey's mathematics experience: a "heartbreaking" and a "very memorable moment" that guided her approaches to future mathematics courses of investing and time and effort to do well.

When looking back on the Algebra II Honors course, Tracey recalled the challenge of balancing academics and "girl things":

> It was a lot of girl things that were going on…. I was in a lot of clubs. I was having my quincenera so that was stressful. I was president of like the choir and I was one of the leads in the musical and in a performing arts academy. And I had a lot of things on my plate so it was really hard to balance everything. (Individual Interview)

She clarified that in addition to extracurricular activities, "girl things" included interest in boys and managing friendships, which she saw as distracting her from doing well in mathematics. Tracey described, "I think they affected them [her Algebra II course experiences] greatly because I couldn't only focus on math because I was focusing on social life and real-life problems."

Favorite and least favorite mathematics courses. Tracey's passion for mathematics was largely influenced by her high school education that began early when she was recommended to take Algebra I Honors in eighth grade. Although Tracey chose Algebra I Honors as her least favorite high school mathematics course, this disfavor was based more on the "overwhelming" academic transition into high school rather than aspects specific to her teacher and the classroom. Tracey viewed eighth-grade mathematics as a building block for algebra so she saw herself struggling because it was "really hard to have to balance two math classes" with the high school course going at a faster pace.

Advanced Placement [AP] Calculus was Tracey's favorite high school mathematics course. The teacher, Mr. Sosa (pseudonym), was available for extra help during and after school hours as well as approached his calculus teaching in ways that allowed her to make connections with previous topics. Tracey reflected on how Mr. Sosa communicated his prioritization of the students' mathematics success to the class:

> Mr. Sosa from day one told us, "No one in this class is gonna fail…. I am putting you up on this pedestal. You're gonna reach it. You have no other choice," in a nicer way than the way I'm saying it right now. And he just gave us so many opportunities. (Individual Interview)

Mr. Sosa's coupling of academic and relational support played an important role in shaping AP Calculus as Tracey's favorite mathematics course. To do this, he reminded students of his high academic expectations for them and openness to supporting them throughout the course. Tracey kept in contact with him after high school graduation as it was "thanks to him that [she] enjoy[s] math."

Another favorable aspect of the AP Calculus course experience was her classmates who she previously knew from growing up in their "small, well-knit town." The familiarity of her AP Calculus classmates facilitated the formation of informal peer study groups outside of class. Tracey saw study group meetings as comfortable, supportive spaces that were "really, really fun" and allowed her to collaborate in learning mathematics with her AP Calculus classmates.

Tracey commented on how mutually identifying with mathematics teachers in terms of social and cultural backgrounds could be beneficial in having shared understandings of how gendered, racial, and other marginalizing stereotypes shape educational experiences:

> It helps I guess if the teacher is the same race and/or gender…. Because I mean if like okay let's go with race, if they are of the same race, they understand more the cultural side and the cultural generalizations that have been made about you, are made about you, and will be made about you. So they understand your background and what you're dealing with at home…. If I have a girl teacher…she's gonna understand the competition with the men in the class so it would be nice to have someone to relate to. (Focus Group Discussion)

Tracey's remarks illustrate how shared social identifications enable teachers to build relationships with students that leverage cultural insights and gender awareness to disrupt discourses that may limit educational opportunities.

To illustrate this dynamic, Tracey discussed how most of her high school's faculty was comprised of Latin@ men including Mr. Sosa who would often "stick up" for her during moments when classmates criticized her "basic small questions" in mathematics:

> Everybody in class would be like, "We learned that 5 years ago. What are you doing here?" It's just like those little snarky comments…I get comments from the students and then like teacher [Mr. Sosa] would stick up for me and say: "Guys, it's a question. You probably don't know the answer. Do you know the answer? No." So, he was on my back. (Focus Group Discussion)

Tracey presents a classroom moment of how she saw Mr. Sosa managing status of mathematics ability often tied to gender and race by responding to peers' criticisms of her questions perceived as reflecting lower mathematics ability. Such teacher–student connections responsive to diversity in mathematics classrooms highlights the importance of teachers being critically aware of and actively challenging discourses about mathematics ability as well as the need for increased diversity of mathematics teachers in the United States. Tracey's high school mathematics experience motivated her pursuits in mathematics so she can return as a mathematics teacher in her hometown and support Latin@ girls with managing gendered cultural stereotypes. She stated: "I wanna be a math major…. Because I love my high school and my town so much, I wanted to be a high school teacher for math and go back and show all the little girls that you can do it. Beat the culture!"

Peers and family. Tracey took note of girls' underrepresentation as being one of only four girls in the class. Such underrepresentation gave rise to what Tracey called "gender battles" between girl and boy classmates framed by notions of boys being better at mathematics and smarter than girls:

> There was four girls in the class…. So, it was really nice to have at least my two very best friends in the class with me 'cause we were the only girls…. The guys would try to give us gender battles like it's 'cause guys are smarter. And I was number two in calculus just proving to the guys. (Individual Interview)

Tracey described how such "gender battles" created a competitive learning environment in the classroom that brought her to feel as though she had to constantly prove being smarter than the boys. Such gendered competitiveness brought some boys to get upset about "getting beaten by a girl," which motivated Tracey to do well so she didn't "lose again to these guys… [who] think they are better."

Furthermore, Tracey discussed how the "gender battles" motivated her and fellow "really smart" girl classmates who were also Latin@ to support each other in bringing boys to feel "threatened by [their] girly greatness." She referenced such collectivism among the Latin@ girls to make a case for its important role in the mathematics success of Latin@ women underrepresented in STEM fields. Tracey commented: "There's not many of us [Latinas] out there. In my [AP Calculus] class, there were only four of us: one girl didn't do so well and the other two did I guess because we stuck together." Tracey's reflections capture how the potentially marginalizing discourses of girls' mathematics ability that fueled the "gender battles" of the AP Calculus course came to be challenged and engaged constructively among Tracey and her fellow Latin@ girl classmates.

Tracey described how such support from her fellow Latin@ girl classmates was meaningful due to their shared understandings of gendered cultural pressures:

> All of my Latina friends from high school, we were either first-generation American or were immigrants that were born out of the country and came here. So it's really nice to have the support from them 'cause they all had what I had at home which was, "Have a child young, get married." We all said: "We are not gonna do that. We are gonna go to college." (Focus Group Discussion)

This reflection illustrates the important role that peer connections with other Latin@ girls played in Tracey's experience of not only challenging notions of girls not being good at mathematics, but also negotiating Latin@ family values with her pursuits of higher education. She described her sense of satisfaction and mutual support with having several of her hometown friends—fellow Latin@ college women—enroll in the same university so they could "stick through [it] together." One of the girls from the AP Calculus course, for example, enrolled in the university's engineering program so Tracey and her continued studying together for mathematics after high school. Tracey commented on how it was helpful studying with her because she was someone familiar—namely, her "best friend for like six years." By sustaining this peer network from high school, Tracey and her peers continued supporting each other in navigating college academics while also negotiating family expectations of maintaining the cultural status quo of Latin@ women.

Moreover, Tracey discussed how teenage pregnancy was common, or a "casual thing," for Latin@ girls in her hometown. She recalled hearing comments from high school mathematics classmates made toward Latin@ girls such as "Go back to the kitchen" and "You need to be married." Tracey described how others at the university were "shocked and…appalled" learning about her friends' early pregnancies rather than the support expressed by high school peers. Such contrasting reactions to teenage pregnancies at the high school and university capture peers' different levels of awareness between the two spaces about familial pressures that Latin@ girls experience about becoming young mothers and wives. By asserting their shared pursuits of a college education instead of marrying and having children, Tracey and her Latin@ girl peers held mutual understandings of this gendered cultural expectation and supported one another in "beating the stereotypes of race and…the social norms of gender" by pursuing higher education.

Family, therefore, also played a role in shaping Tracey's connection to mathematics. She alluded to family influences of immigration, financial struggle, and gendered cultural narratives in describing why she saw herself as "a perfect example of why the Latinas don't make it in mathematics." Tracey reflected on how being a first-generation college student in the United States entailed managing elderly family members' "very old-fashioned" views of a gendered division of household labor taken up in Cuba—namely, "the men work, the women nurture…. The men provide the money, the women clean the house."

Tracey, for example, discussed how her grandmother who recently immigrated to the United States criticized her for "slacking" because she was attending college at eighteen years old instead of "get[ing] married [and] start[ing] a life" so she can provide her with great grandchildren. Such family expectations of motherhood and marriage shaped Tracey's views of Latin@ women throughout her upbringing: "Latina women—you're a mom. You are to breed and work for, tend to your husband. At least that's what I grew up thinking."

This view of Latin@ women's role in the family stood in opposition to Tracey's intended pursuits of "further[ing] [her] education" and obtaining a college degree in mathematics. Tracey saw her mother as a frame of reference of what can happen to a college-bound Latin@ woman when "culture catches up" to her in the United States. In particular, her mother was unable to complete a college degree in mathematics education after she was pregnant with Tracey and began financially supporting the family as the only working adult in the household:

> I grew up and still live in poverty. My mom works a horrible job that she hates. My dad can't work…. He's disabled…. My grandmother can't work. She's old…. We struggle…. I saw what happened to my mom. She pursued a math career, culture caught up with her, and now she's in that situation. If I go down that path, I am not going to move forward…. She doesn't want what happened to [her] to happen to [me]. (Individual Interview)

Tracey uses her mother's story as motivation to major in mathematics and become a mathematics teacher. Furthermore, Tracey acknowledged her pursuits in mathematics allow her to avoid being in the same position as her mother after falling victim to gendered cultural pressures faced by Latin@ women.

In addition, Tracey reflected on hope for change in the prevalence of stereotypes about Latin@ women as young mothers and not being college-educated so opportunities for Latin@ women like her in STEM are increased. She alluded to how such change would allow her to "move forward and…carry on [her] mom's legacy" of becoming a mathematics teacher. Thus, Tracey's reflections illustrate how knowledge of her mother's culturally-influenced experiences as well as shared experiences with Latin@ girl classmates navigating stereotypes of mathematics ability and higher education shaped her academic and professional pursuits to challenge discourses that marginalize Latin@ women.

First year of college. Tracey remarked on her appreciation of having personable college mathematics instructors who connected with their students. She described how her first-semester calculus teaching assistant, Vince, was the “funniest man ever” who the students regularly approached during weekly problem-solving workshops with questions. In addition, Tracey appreciated Vince’s student-centered facilitation of the calculus workshops such as soliciting questions from students as well as circulating the classroom to offer guidance and support to problem-solving groups. Vince, thus, provided Tracey with the opportunity to learn from a mathematics teacher in college who prioritized student learning and support much like Mr. Sosa did. Given the common use of teacher-centered lecture formats for mathematics teaching at the undergraduate level, Vince’s teaching approach allowed Tracey to continue receiving the academic and relational support from teachers that played a central role in her positive high school mathematics experiences.

With a smaller Latin@ representation at the university compared to high school, Tracey felt as though Latin@s were lumped together as one homogeneous racial group as opposed to the appreciation of Latin@s’ cultural diversity in high school. She described how instead of valuing how “Hispanic culture had many branches,” her first year at the predominantly White university brought her to feel as though Latin@s as an entire group were positioned as: “You’re all together. You’re all here.” This lack of acknowledged within-group variation in college, as a result, contributed to her feelings of being subjected to racial judgments framed by the discourse of Latin@s not being good at mathematics.

For example, Tracey contrasted this with her experience of attending a predominantly Latin@ high school where she felt judged more for being a girl and less for being Latin@. She described: “There wasn’t any really degrading on my intellectual skills based on my race because we were all the same race. It was more based on ‘cause I was a girl.” To illustrate, Tracey reflected on her university peers’ surprised reactions upon learning that she was a mathematics major and then proceeding to ask about her ethnicity and performance in mathematics:

> When I came here [to the university], it was really weird when people would ask me, “What major are you?” and I’d say, “Oh, I’m thinking of math.” “Oh! Math?! Really? Wow! I wouldn’t have expected that.” A good amount of people ask me, following up the question of “What major are you?” with “Where are you from?”…. And I’d say, “Oh I’m Cuban.” “Oh you’re Cuban. Oh, alright. That’s cool. Alright, so how are you doing in math?” Alright, I guess they just wanted to know where I was from? (Individual Interview)

Tracey was perplexed by the logic behind others' "awkward follow-up question" regarding her ethnicity after sharing that she was a mathematics major. However, she also acknowledged being more aware with time of how racialized ideas of mathematics ability including Latin@s not being good at mathematics contributed to such interpersonal exchanges at the university. Tracey's reflections on others' reactions to her being a mathematics major, thus, capture her heightened awareness of her high school and university as spaces racialized in different ways that in turn shaped others' potentially negative judgments of her mathematics ability in college and lack thereof in high school.

Tracey, however, found herself questioning if she wanted to continue pursuing a mathematics major after her first exam in second-semester calculus. She described how her efforts such as attending lectures, contacting instructors for extra help, and completing homework assignments did not translate into the grades that she expected. During this discouraging experience, Tracey reached out to advanced peers pursuing a mathematics major for advice on handling this situation:

> I spoke to different people who I've met along the way, who are also math majors, and have gone through this and they all say that…calc 2 is the hardest math. "You just have to stick through, hold your head high, get through it, and after calc 2, you'll make it." And it really helped to have peers say: "You know, every single person in the universe struggles with calc 2. It's hard, it's really hard. Once you pass that milestone, it gets better." (Individual Interview)

Although this peer support was not content-specific such as recommended studying or test-taking strategies, it provided Tracey with closure in not feeling alone in her situation with second-semester calculus. Tracey's connections with more advanced peers at the university, thus, not only allowed her to maintain a peer study network for mathematics in college, but also provided emotional support and affirmation of the struggles that come with being a mathematics major.

Cross-Case Analysis of Counter-Stories

Looking across these two counter-stories, we see the variation in how Lauren and Tracey invoked and negotiated discourses related to mathematics ability and STEM higher education to make meaning of the intersectionality of their experiences as Latin@ women in mathematics. I organize the following cross-case analysis by the most dominant discourses present in their counter-stories: (a) mathematics ability is innate, (b) women and Latin@s are not good at mathematics, (c) Latin@ women are underrepresented in STEM, and (d) Latin@ women become young mothers and wives instead of college students. Insights into how the two Latin@ women encountered them institutionally and interpersonally are also discussed. Finally, in the analysis, I explore strategies that Lauren and Tracey adopted to navigate these discourses and advance their respective mathematical pursuits.

Mathematics ability is innate. Lauren and Tracey, in different ways, engaged the discourse of mathematics ability as innate. For example, Lauren saw herself as being naturally talented in mathematics that allowed her to pay less attention during high school mathematics courses, feel as though the subject came easier to her than others, build stronger relationships with teachers, and work well with peers at similar levels of ability. Such innateness of ability, however, ran counter to Lauren's acknowledgement that her mathematics success was largely contingent on receiving high-quality instruction and support from her teachers in high school and college.

In contrast, Tracey challenged the innateness discourse after a turning point in her mathematics experience—namely, receiving her first low grade of C in high school. Mathematics ability was what allowed Tracey to feel "intellectually smart" and confident, but her overconfidence in Algebra II Honors brought her to appreciate that mathematics success was less about natural talent and more about hard work and effort. This discourse continued to inform Tracey's approach to future mathematics courses including AP Calculus where she and fellow underrepresented Latin@ girls engaged in "gender battles" to collectively disprove notions of men being better at mathematics than women.

Lauren's and Tracey's respective ways of engaging the discourse of innate mathematics ability captures the pressures of academic success that can be placed on students especially Latin@ women and other populations underrepresented and marginalized in mathematics. In Lauren's counter-story, we observe the impact that high-quality teaching can have in disrupting such notions of innate ability often attributed to men, Whites, and Asian American students who hold higher rates of achievement and representation in mathematics within the United States. Tracey's reflections on her low grade in Algebra II Honors and underrepresentation in AP Calculus point to systemic issues of underachievement and underrepresentation among women and racially minoritized groups in mathematics. When innateness of mathematics ability—a discourse framed by colorblind and gender-blind ideologies—is coupled with these systemic issues, women's and racially minoritized groups' underachievement and underrepresentation come to be explained as these groups being inherently deficient of potential for mathematics success (Battey & Leyva, 2016, this issue; Martin, 2009, 2013; Mendick, 2006).

Thus, a gendered and racialized hierarchy of mathematics ability is produced. Innateness of ability operates as a colorblind and gender-blind way of discussing this racialized and gendered hierarchy. It can bring fellow members of marginalized groups to position each other as being more or less Latin@ and more or less feminine based on perceived mathematics ability (Mendick, 2006; Stinson, 2008). This positioning is particularly oppressive for Latin@ women as an underrepresented group in mathematics in navigating gendered and racialized judgments of ability that bring their success to be deemed unexpected and transgressive. An example of this positioning was observed when Lauren discussed how Latin@ boys in high school engaged in gendered peer policing premised on the notion that it is not normal for a girl and "especially a Latina girl" to be good at mathematics.

Women and Latin@s are not good at mathematics. Lauren and Tracey also engaged discourses of women and Latin@s not being good at mathematics. It is important to note that the ways in which Lauren and Tracey perceived schools, classrooms, and other institutional spaces as gendered and racialized shaped the level of saliency of these discourses throughout their experiences (Moore, 2008; Stinson, 2008). Lauren, for instance, described feeling more conscious of the "gender thing" and women's underrepresentation in STEM at the university than in high school. She saw women's representation in her high school mathematics faculty as an implicit way of communicating to students, especially boys, that "a female can do it [mathematics] too" and thus challenging gendered discourses in mathematics.

Tracey felt her mathematics ability subject to scrutiny in relation to her gender identity at her predominantly Latin@ high school, but judged more so racially at the predominantly White university. The discourse of girls being less smart and good at mathematics than boys shaped the competitive atmosphere of Tracey's AP Calculus classroom with the outnumbered Latin@ girls engaged in "gender battles" over top spots in the class with boy classmates. At the university, Tracey felt her shared pursuits of a mathematics major to be received with skepticism and surprise including an "awkward follow-up question" about her racial background. This contrasted with Tracey's high school experience where "there wasn't really a discouragement…on race and mathematics" in light of being in a predominantly Latin@ town. Lauren's and Tracey's counter-stories, thus, capture how consciousness of their social identities varied across contexts and thus led to different positionings of themselves and others along the hierarchy of mathematics ability over time.

An evolving theme across Lauren's and Tracey's engagements with discourses of women and Latin@s not being good at mathematics is how these gendered and racial discourses shaped the nature of instruction and teacher-student relationships in high school and college mathematics (Battey, 2013; Battey, Neal, Leyva, & Adams-Wiggins, 2016). Both Latin@ women described how their mathematics success in high school was largely attributed to establishing positive, supportive relationships with teachers who held high academic expectations of them and fellow students in alignment with notions of culturally responsive pedagogy in urban schools (Gay, 2010; Ladson-Billings, 1995). High school mathematics teaching, therefore, provided them with opportunities to be academically challenged and supported in ways that were affirming of their identities as Latin@ women.

During their first year at the university, Lauren and Tracey reconsidered their continued pursuits of a computer science and mathematics major respectively. They raised concerns about feeling disconnected from their mathematics professors' teaching approaches and seeing their efforts not translate into better grades. These reflections raise questions about the shift in mathematics teaching and learning experiences between high school and college. Lauren's and Tracey's counter-stories warrant our analytical considerations of the extent to which undergraduate mathematics education in predominantly White universities and other higher education institutions sustains forms of cultural and gender responsiveness that the Latin@ women received during high school (Jett, 2013; Rodd & Bartholomew, 2006; Stinson, 2016). Such forms of support in mathematics teaching better attend to the intersectionality of experiences for underrepresented and marginalized populations including Latin@ women and thus broaden students' opportunities to co-construct positive academic and social identities across the P–16 mathematics pipeline.

Latin@ women are an underrepresented group in STEM. Lauren and Tracey raised the discourse of Latin@ women being an underrepresented group in STEM. Lauren interpreted statistics of Latin@ women as the most underrepresented group in STEM as a reflection of the minimal encouragement and mentorship that they receive to pursue STEM education and careers—a departure from deficit notions of Latin@ women inherently not being good at mathematics. She engaged the discourse of Latin@ women's underrepresentation to make meaning of why she went on to pursue higher education in STEM. Lauren distinguished her situation of being supported by her family to major in a mathematics-intensive field like computer science from that of other Latin@ women whose families may not have "taught [them] that they can do math" or that STEM was a viable career pathway for them. Her STEM pursuits also allowed Lauren to serve as a role model for her younger relatives to sustain such family encouragement.

Tracey similarly invoked the discourse of Latin@ women's underrepresentation in STEM when reflecting on her experience as one of the four Latin@ girls in her AP Calculus course. She explained that because they "stuck together," she and her fellow Latin@ girl classmates were successful in the course and their first year at the university. This sense of collectivism was powerful because Tracey and her peers understood each other's similar situations as not only being underrepresented in the AP Calculus classroom, but also dealing with gendered cultural pressures of becoming young mothers and wives rather being good in mathematics and pursuing higher education. This supportive peer network motivated Tracey and her Latin@ girl classmates to challenge discourses that marginalize Latin@ women's opportunities in STEM throughout the AP Calculus course and into college.

Lauren's and Tracey's counter-stories, thus, illustrate how they respectively took up the discourse of Latin@ women's underrepresentation to mobilize change through their STEM higher education. In addition, they saw their pursuits of mathematics-intensive majors serving as opportunities to sustain the interpersonal encouragement from family (in Lauren's case) and peers (in Tracey's case) that largely influenced their academic and professional endeavors in STEM. The potentially marginalizing influence of the underrepresentation discourse, therefore, instead stimulated the Latin@ women's adoption of success-oriented beliefs of STEM education as an opportunity to become role models for future generations of Latin@ women as well as strategies like building peer networks for navigating the socially exclusionary landscape of mathematics and STEM education more broadly.

Latin@ women become young mothers and wives instead of college students. The discourse of Latin@ women expected to become young mothers and wives rather than being college-bound emerged across Lauren's and Tracey's counter-stories. The Latin@ women were both subjected to the discourse through peer remarks in high school about taking care of children, returning to the kitchen, and getting married rather than doing mathematics and pursuing a college degree. Lauren and Tracey saw such peer policing as a reflection of traditional cultural values of a gendered division of labor taken up in Latin@ households.

While Lauren was aware of such gendered cultural expectations that Latin@ women "stayed at home" instead of working or studying, she reflected on how her family did not perpetuate such values and instead encouraged her to "break that tradition" by pursuing a college education. Although Lauren was a first-generation college student, she was pushed less toward marriage and child rearing than Tracey whose mother would have been the first family member to complete a college degree in the United States. Tracey, however, discussed how her grandmother frequently criticized her for not thinking about marriage and raising children instead of applying to and attending college. Her mother also served as a frame of reference of what can happen to a Latin@ woman when "culture catches up" to her and derails her STEM career pursuits. As a result, Tracey viewed returning as a high school mathematics teacher in her hometown as an opportunity to pick up where her mother left off in her STEM career development. This returning was also a way for her to encourage younger generations of Latin@ girls to "beat the culture" and not fall victim to discourses that steer them away from applying their mathematics ability and interests. These different experiences raise considerations of the influence of immigration in the Latin@ women's negotiations of family expectations and STEM higher education with the presence of recently immigrated family members contributing to a stronger salience of gendered cultural discourses at home.

Despite the varying influence of the discourse about Latin@ women as young mothers and wives, it is important to note how Lauren and Tracey both leveraged family-oriented motivations of pursuing mathematics-intensive majors to directly challenge the discourse. What is a potentially marginalizing discourse that stems from traditional Latin@ family values, therefore, was met with the Latin@ women's empowering strategies of resistance for the advancement of their family situations. This resistance illustrates how the two Latin@ women's familismo (Marín & Marín, 1991; Suárez-Orozco & Suárez-Orozco, 1995), or sense of loyalty and responsibility to the Latin@ family unit, played a critical role in their motivations to excel in mathematics while negotiating STEM higher education with family expectations.

Social class also shaped Lauren's and Tracey's perspectives on the importance of pursuing mathematics-intensive majors and STEM careers as Latin@ women. Lauren set herself apart from the "really disappointing" complacency academically and professionally among her Latin@ older cousins who did not pursue higher education. In doing so, she described how serving as a role model for her cousins as a college graduate in STEM would help them realize how they can also "live a life with a degree and more comfortably." Tracey alluded to her family's financial struggle with her mother taking an unenjoyable, low-paying job as the sole household contributor. She perceived such financial struggle to be a consequence of her mother falling victim to the gendered cultural expectations of becoming a young mother as a Latin@ woman. Tracey draws on this awareness to stimulate her mathematical pursuits as a pathway for avoiding a similar situation and "carry[ing] on [her] mom's legacy" as a future high school mathematics teacher. Immigration and class, therefore, are closely tied to the development of Latin@ family values such as maintaining cultural integrity and pursuing a college education for aims of social mobility in the United States. The interplay of such family influences with the discourses of mathematics ability and STEM representation results in varying intersectionalities of experience for the Latin@ women like Lauren and Tracey.

Discussion and Implications

In this study, I presented cases of two Latin@ college women's mathematics experiences with analytical attention to how they navigated discourses of mathematics ability and STEM higher education encountered institutionally and interpersonally. The intersectional analysis of Lauren's and Tracey's counter-stories details the complexity of how they made meaning of their experiences as mathematics students and negotiated their identities as Latin@ women with mathematics success and pursuits of STEM higher education (Esmonde et al., 2009; Martin, 2009). More specifically, the analytical construction of their counter-stories allowed for detailing the variation between two Latin@ women's mathematics experiences and adopted strategies in managing discourses of ability and underrepresentation mapping onto empowerment, resilience, and success (Bowleg, 2008).

By exploring gender as socially constructed, this work departs from sex-based, binary analyses comparing achievement and participation differences between women and men in mathematics and thus allowed for capturing within-group variation of experience particularly among Latin@ women (Leyva, in press; Mendick, 2006). The analytical foregrounding of Lauren's and Tracey's gendered experiences shaped by other social influences including race, class, and immigration advances work in mathematics education that, by and large, has left intersectionality of experience, especially among women of color, implicit (Leyva, in press). The poststructural analysis documents the emergent ways in which the two

Latin@ women were discursively gendered as mathematics students while negotiating marginalizing perspectives of mathematics ability and sense of familismo.

The analysis generated nuanced understandings of what it means to be a Latin@ woman studying mathematics as well as how educational structures and stakeholders can more effectively advance educational equity for Latin@ women and other marginalized groups in P–16 mathematics. For example, the high school-to-college transition was a challenging experience that came with pedagogical and relational shifts in mathematics teaching that resulted in both Lauren's and Tracey's reconsiderations of mathematics-intensive STEM majors. Both Lauren and Tracey alluded to gender-affirming and culturally responsive moments in high school mathematics that played a major role in their pre-college interests and academic success. Such social support and teacher–student connections, however, were minimally experienced at the university with the Latin@ women finding themselves in positions of needing to "teach themselves" and re-building peer networks on their own. This corroborates findings from extant research in STEM higher education that identified institutional selectivity, or attending research-intensive colleges or universities that hold teaching at a lower priority for faculty, as a negative statistical predictor of STEM persistence for women of color (Espinosa, 2011).

Furthermore, findings from this study echo resounding calls for mathematics teaching responsive to gender, racial, and other forms of diversity at the undergraduate level (Jett, 2013; Rodd & Bartholomew, 2006; Stinson, 2016). Lauren's and Tracey's counter-stories, therefore, call into question the extent to which the coupling of academic and social support critical to their construction of positive mathematics identities as Latin@ women in high school is sustained and valued in undergraduate mathematics education—a space largely shaped by gendered and racial discourses of mathematics ability—especially at predominantly White institutions (McGee & Martin, 2011; Mendick, 2006; Shah, in press).

Thus, P–16 mathematics teachers play an important role in being aware of deficit discourses and supporting marginalized student populations, including Latin@ women, in successfully navigating them to broaden opportunities for mathematics success. This support is especially important at the undergraduate level with entry-level mathematics courses like calculus documented as a filter resulting in attrition of STEM majors (Chen, 2013; Rasmussen, Marrongelle, & Borba, 2014). This filtering was evidenced in Lauren's and Tracey's reconsiderations of their mathematics-intensive majors by first- and second-semester calculus respectively.

Despite these discourses' marginalizing influences and minimal social support available to navigate them in undergraduate mathematics, Lauren's and Tracey's counter-stories illustrate the two Latin@ women's development of success-oriented beliefs and strategies in negotiating these discourses with their social identities. It is important to note how the two Latin@ women's family- and community-related motivations to seek higher education in mathematics-intensive STEM areas were largely influenced by mathematics teaching, particularly in high school, that brought them to see themselves as being "good at math." Therefore, I argue that P–12 STEM education should be a critical area of focus in contemporary calls and initiatives for broadening participation in STEM among underrepresented populations. A mathematics or other STEM degree is often a prerequisite in being certified as a P–12 mathematics teacher. Increasing retention rates in undergraduate mathematics and other mathematics-intensive STEM areas, thus, would further diversify the P–12 teaching force and connect underrepresented students with teachers who look like them and who can relate to their personal experiences in dealing with deficit discourses in mathematics and STEM broadly. This diversifying is important as Lauren and Tracey discussed the influence of seeking support from as well as building networks with fellow women and Latin@s, but they were mostly family members and peers as opposed to mathematics or STEM educators.

Findings from this study corroborate those from extant work in urban mathematics education on the importance of peer networks in the mathematics success of students of color (Oppland-Cordell, 2014; Treisman, 1992; Walker, 2006). Lauren and Tracey either sought academic support from peers at the university or sustained peer networks from their home communities that served as resources for their success in high school and college mathematics. Tracey, in particular, commented on how maintaining peer connections from high school were both academically supportive and socially empowering. However, such ties to peer networks are often severed for women and students of color once they start their first year of college, thus leaving them with the responsibility of re-building such networks on their own for their continued success in mathematics. Lauren's and Tracey's abilities to seek, establish, and sustain peer networks in mathematics challenge notions that the ability to form such networks is inherently missing among students of color (Treisman, 1992). More importantly, this highlights the responsibility that colleges and universities, especially predominantly White institutions, have in supporting marginalized students' peer network development for academic and social support in STEM. Such support includes the management of deficit discourses and feelings of underrepresentation and as well as navigating institutional spaces for undergraduate STEM success (McGee & Martin, 2011).

A limitation of this study is the lack of observations of the two Latin@ women across undergraduate mathematics classrooms. Ethnographic observations and field notes would complement their reflections of mathematics as a socially exclusionary space in terms of their engagement with content, peers, and instructors at the university. There is analytical space for future research that examines the instructional and relational spaces of undergraduate STEM education including mathematics classrooms to document how opportunities for mathematics learning are promoted or hindered for marginalized populations including Latin@ women. Although there exist significant issues related to Latin@ students' experiences in P–12 mathematics, these issues are only recently becoming part of the undergraduate mathematics conversation. Insights from this study and those that follow can inform professional development for undergraduate mathematics departments and mathematics educators as they work to create academic and social supports that sustain opportunities for students of color like Lauren and Tracey to continue to be successful in their higher STEM education.

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