NARRATIVES OF RAZA IN MATHEMATICS EDUCATION RESEARCH LITERATURE

Stacy R. Jones	Carlos Nicolas Gomez Marchant
The University of Texas at Austin	The University of Texas at Austin
srjones@utexas.edu	nico.gomez@utexas.edu

We present a finding from a literature analysis of Raza populations published in top-tiered peer reviewed mathematics education journals. We look at how narratives are perpetuated and resisted at the intersections of Raza, mathematics education, and research. The findings reveal the field of mathematics education research is perpetuating deficit narratives of Raza through 1) simplistic descriptions of Raza which perpetuate a racial hierarchy; 2) white institutional spaces group, order, and Americanize Raza populations; and 3) counter-stories of La Raza; however, we will only concentrate on the first finding for this manuscript. The examined literature continues to center Anglos' narratives and values while maintaining a social hierarchy and the assimilation and Americanization of La Raza. Finally, we provide implications for disseminating our research to go beyond simplistic demographics of social constructs.

Keywords: Equity, Inclusion, Diversity; Research Methods; Social Justice; Systemic Change

There is a long history of racism in the making of a capitalist society by Anglos in the United States (Haney López, 2006; Molina, 2014; Peller, 2012; Yancey, 2004). Westward expansion and building the economy is a romanticized story passed from one generation to the next when in reality "the massive extermination of indigenous people provided our land base; the enslavement of African labor made our economic growth possible; and the seizure of half of Mexico by war…extended this nation's boundaries" (Martínez, 2017, p. 43). Furthermore, dominant narratives describe Raza as lazy, dirty, ignorant, untrustworthy, and unambitious (see Gonzalez, 1990; Muñoz, 2007; San Miguel, 2001) allowing Anglos to justify the brutal violence and lynching of La Raza (Martinez, 2020). We use the term Raza and La Raza as a political move to disrupt Anglos' oppressive strategies of naming, defining, and centering Eurocentricity in order to maintain dominance (see Anzaldúa, 1987; Martínez, 2017; Gutiérrez, 2001). La Raza is a term derived from the community, loosely translating to "The People" or "The Race". This term has been used previously in political uprisings, such as El Movimiento, in phrases such as "Viva La Raza" to energize and empower La Raza to work towards social justice (see Gutiérrez, 2001).

An Anglified history has omitted the lived experiences, knowledges, stories, and contributions of Asian, Black, and Raza communities. Anglos have always been positioned as the heroes, saving others; this is the consequence of telling history from only the perspectives of Anglos (i.e., Texas Rangers, see Swanson, 2020). Dominant narratives strategically erase the contributions, voices, and lived experiences of Raza populations. Raza have been responsible for the development of land and building the U.S. economy, active in politics and government affairs, enlisted in the U.S. military and gave their lives in wars, and persistent in acquiring better and more just educational experiences for themselves and future generations (Muñoz, 2007; San Miguel, 2001). Further, Raza continue to be active in the previously mentioned ways in spite of being treated as second class citizens, where they are oppressed, segregated, manipulated, de-humanized, and lynched by Anglos (Martinez, 2020).

The previously mentioned deficit narratives, histories, and ways of acting are embedded within our ways of knowing and doing in the present (racism as permanent and endemic in our

society; Delgado & Stefancic, 2017). In order to make changes to the system, we must reveal, interrogate, and dismantle deficit storylines of La Raza. Oftentimes, we justify actions and dialogue because 'that's the way it's always been done' or by calling actions and dialogues 'norms'. There is also an apprenticeship mentality in academia where doctoral students and early career faculty are expected to follow the ways of their predecessors. Just as society has found ways to perpetuate racism without (always) being explicitly racist, academia perpetuates racism without (always) being explicitly racist as well. These implicit ways of perpetuating racism also permeate mathematics education research. In this paper, we share one of our findings from a critical literature analysis on the narratives being written in mathematics education research on Raza populations. We use a critical lens to uncover how racism is perpetuated in mathematics education scholarship.

Theoretical Framework

In this section, we describe Critical race theory and Latinx critical theory as a framework guiding our critical analysis of the literature in mathematics education research on Raza populations.

Critical Race Theory and Latinx Critical Theory

Thus far, we have provided a history of racism in regard to Raza as well as an understanding of racism as permanent and endemic in our society. The belief that racism is permanent and endemic within our society is the first tenet of critical race theory (Bell, 2018) and consistent with other critical race scholars (e.g., Delgado & Stefancic, 2017; Solórzano & Yosso, 2002). Bell, along with other legal scholars, activists, and lawyers, developed critical race theory in legal scholarship to "combat the subtler forms of racism that were gaining ground" when the Black Power and Chicano Movements of the 1960's began to subside (Delgado & Stefancic, 2017, p. 4). Latinx critical theory extends critical race theory to highlight the racialized experiences of Raza communities. Raza have unique experiences being racialized based on language, citizenship, immigrant status, phenotypes, and surname. Therefore, Latinx critical theory's specificity to the Raza community will provide a more targeted lens for this literature analysis.

Other tenets of critical race theory and Latinx critical theory vary, however, the tenets guiding our work are the social construction of race, challenging the dominant ideology, and centering experiential knowledge of Raza (Delgado & Stefancic, 2017; Solórzano & Yosso, 2002). The social construction of race "holds that race and races are products of social thought and relations…Not objective, inherent, or fixed, they correspond to no biological or genetic reality; rather, races are categories that society invents, manipulates, or retires when convenient" (Delgado & Stefancic, 2017, p. 7). Anglos have constructed narratives in order to place races in a hierarchy, always with Anglos at the top of the hierarchy as a superior race. Furthermore, critical race scholars challenge dominant ideologies (i.e., colorblindness, neutrality, meritocracy, equal opportunities) and "argue that these claims act as a camouflage for the self-interest, power, and privilege of dominant groups in U.S. society" (Solórzano & Yosso, 2002, p. 26). We highlight this tenet through our critical literature analysis by revealing how dominant ideologies have been camouflaged in mathematics education research and perpetuate racial hierarchies.

The final tenet of critical race theory and Latinx critical theory used to frame the critical analysis is centering experiential knowledge. Delgado and Stefancic (2017) assert that:

> The voice-of-color thesis holds that because of their different histories and experiences with oppression, [B]lack, [Indigenous], Asian, and [Raza] writers and thinkers may be able to communicate to their white counterparts matters that the whites are unlikely to know (p. 11).

Therefore, we take a critical look at the narratives being perpetuated about Raza communities. In centering our own voices, as Raza, we are able to reveal the racism being perpetuated in mathematics education research.

Using critical race theory and Latinx critical theory, we conducted a critical literature analysis on the narratives of Raza in mathematics education research. The purpose of this literature analysis is to understand the narratives of Raza students in mathematics education research literature. An interrogation of the narratives being told will provide insight into how racism is embedded within our practices, how dominant ideologies are perpetuating racism, and how the field of mathematics education research can be more equitable.

The research questions guiding the overall literature analysis are: 1) How are Raza populations discussed in mathematics education research literature? 2) How might mathematics education research perpetuate deficit narratives and/or racial hierarchies of La Raza? 3) How are mathematics education researchers challenging dominant narratives of La Raza? For this paper, we focus on the second research question.

Methods

Data collection involved conducting a comprehensive search of relevant literature and identifying specific criteria for selecting and appraising appropriate primary research, which served as the data set for the critical literature analysis.

Phase 1: Journal and Article Identification Process

To locate relevant articles, we began with Williams and Leatham (2017) list of top-tiered journals in mathematics education research. The purpose for choosing top-tier journals in mathematics education research is the impact these journals have on the field, therefore, the narratives constructed in these journals are more likely to be representative of acceptable narratives within mathematics education research. Williams and Leatham (2017) compiled a list of journals based on opinion- and citation-based criteria. We used journals which appeared on both lists (opinion and citation) and could access. The journals, in alphabetical order, include: *Educational Studies in Mathematics*, *For the Learning of Mathematics*, *International Journal of Mathematical Education in Science and Technology*, *Journal of Mathematical Behavior*, *Journal of Mathematics Teacher Education*, *Journal of Research in Mathematics Education*, *Journal of Urban Mathematics Education*, *Mathematics Education Research Journal*, *Mathematics Teaching and Learning*, *School Science and Mathematics*, and *ZDM*.

Once the journals were identified, a list of keywords were compiled which captured how Raza are described as a population. The following keywords were used to search in each of the 11 journals using their home database search engines (e.g., JSTOR, Wiley): Chicana, Chicano, Chicanx, Chican@, Hispanic, Latina, Latino, Latinx, Latin@, Latino/a, and Latina/o. Using the keyword search and journal selection criteria, 447 articles were identified.

We did not use terms around language which are often used to describe Raza populations, such as Emergent Bilingual, Limited English Proficiency, English Language Learner, English as a Second Language because these terms are not specific to Raza populations. We argue in order to make claims about Raza populations in the circumstances of language, then these identity markers would need to be supplemented by the use of the above keywords used in our search.

Furthermore, we analyzed articles which only took place in the United States. We chose this criterion in order to be consistent with the ways Raza are oppressed and dehumanized within the same context as well as there to be a familiarity of this oppression and dehumanization with our audience. Finally, the ages of Raza in the data range from pre-K to adults: children ages 3 or 4 to parents, teachers, and preservice teachers.

Phase 2: Identifying Relevant Articles

During the second phase, we searched each article for the keyword term(s) to determine the capacity in which they were being used within the publication. The articles which only used keyword(s) in the references were not considered for analysis. Further, articles were discarded that were book reviews, research commentaries, or conference proceedings. Additionally, we excluded articles published prior to 2000 in order to provide a more contemporary analysis of the literature. At this point, there were 256 articles.

Next, we determined our inclusion criteria for data synthesis to include empirical studies where the Raza population was at least 50% of the population being studied or there were specific claims being made about Raza populations within their study. For example, in Jackson et al. (2015) students self-identified as 10% and 2.4% Raza in each of the middle schools, however, the authors make specific claims to Raza populations. They state, "As we examine the data by race, the largest average gain from pre to post of the experimental group was by the African American students…whereas the lowest average gain were [Raza] (2.44%), and whites had a gain of 5.44%" (p. 339). While the Raza population is below 50%, the authors make claims specific to La Raza, which help to understand the narratives of Raza in mathematics education research (research question 2). This criterion was set because making an argument about the narratives specific to Raza from these findings would be challenging. Even with a Raza population of 40%, unless the author(s) make specific claims about the Raza population somewhere else in the article (i.e., results, discussion), we were not convinced a strong enough argument could be made about their findings in regard to Raza. Therefore, the articles that only mentioned the keyword(s) as a percentage of their population, and the percentage is below 50% do not help in answering our research questions. After applying each of the criteria to determine relevant articles, we had 52 articles to analyze.

Synthesizing Articles

We analyzed all of the articles using a grounded theory approach to allow themes to emerge from the data. In order to more fully understand how narratives of Raza are discussed in mathematics education research literature it was important to allow the themes to emerge as opposed to applying an initial coding scheme to the data. We felt this would provide the opportunity to uncover instances that a coding scheme may be blinded to. For each article, we identified the background literature, research questions, description of the population, results, and implications. We also kept track of any comparisons of populations based on race/ethnicity, how Raza populations were being positioned, and if being Raza was necessary to the research questions, framing, results, or implications. Analyzing the data from the description of the population being studied provided the foundation for our first finding, which we will concentrate on in this paper. Further, keeping track of comparisons helped to understand how racial hierarchies play a role in the construction of narratives of Raza populations. We also needed to understand the different ways Raza populations were being positioned within the article, this allowed us to categorize articles which perpetuated a deficit narrative of Raza populations in comparison to articles which provided a counter to dominant narratives.

In the second iteration of analyzing the data, each aspect of an article, background literature, methods (including the description of the population as a separate category), results, and implications, were each coded as either providing a dominant narrative, countering dominant narratives, or neither. This allowed the authors to analyze each section of an article independently to understand how aspects of an article may perpetuate or counter dominant narratives, as well as see the article as a whole to understand how narratives of Raza are being perpetuated or countered. In doing so, we were able to categorize articles and sections of articles as perpetuating or countering a dominant narrative. For example, we categorized Roy and Rousseau (2005) as countering a dominant narrative because they describe a teacher with high expectations and his success in working with Raza populations. In the description of the population studied, however, they also perpetuate a racial hierarchy of ability stating,

> Matthew was a mathematics teacher in an urban high school in the Midwestern United States. The school served a large [Raza] population (approximately 60%) with smaller populations of [African American], Asian, and white students. The student population of the high school was predominantly of low socioeconomic status, with 65% of the student body eligible for free or reduced lunch…Matthew was assigned to teach some of the lowest-level mathematics classes offered at the school (p. 16).

Our analysis allowed us to see Roy and Rousseau (2005) as a counter to dominant narratives because of the entire paper; however, when looking specifically at the description of the population being studied, they perpetuate a deficit narrative of Raza. Therefore, in order to more fully understand how mathematics education research literature is perpetuating or countering dominant narratives, we needed to look at each section of the article as well as the article as a whole with a critical lens. In doing so, we were able to tease out any nuances in how the field works to perpetuate dominant narratives as well as how some scholars are disrupting these norms in order to provide a more complete understanding of Raza populations in mathematics education research.

Upon dissecting each article, we were able to form themes on the narratives of Raza populations. The initial themes include 1) Raza described as low income, low mathematics ability, and disabled; 2) white institutional spaces group, order, and Americanize Raza populations; and 3) counter-stories of Raza populations. We will concentrate on the findings for the first theme.

Descriptions of Raza Populations Perpetuate a Dominant Narrative

In this section, we present findings related to the second research question: How might mathematics education research perpetuate deficit narratives and/or racial hierarchies of La Raza? We provide representative examples of the articles within this theme as opposed to an exhaustive review of each article due to the conceptual nature of this critical literature analysis (see Harper, 2019). Our analysis produced three major findings; however, we are only concentrating on the first finding for this paper.

When considering the context of the study within an article, the field of mathematics education research perpetuates the use of nominal social constructs, such as race/ethnicity, class, gender, and ability to be included in order to provide the reader with an understanding of where the study is taking place. After critically analyzing the literature, we found it necessary to think more deeply about how norms have been constructed for the purposes of creating and maintaining a social and racial hierarchy. Of the 52 papers analyzed, two-thirds of them used

deficit narratives of social constructs to provide context to the study. We, the authors, have also been guilty of perpetuating deficit narratives of Raza populations in the context of our work (see Gomez et al., 2020). It is important, however, to critically analyze how we frame participants within the storylines we write because social constructs are attached to white superiority ideology and used and created to other certain communities (see Haney López, 2006). In our critical analysis, we found the format of perpetuating deficit narratives of Raza varies from one piece of data to the next, however, when interrogating dominant narratives about Raza populations, deficit framings were consistent in perpetuating dominant narratives: Raza populations are low income, do not succeed academically, and are disabled.

We begin with an example from equity focused scholars to highlight how perpetuating norms are not divided along an equity lens, but stem from white ideology of what it means and looks like to do research. Therefore, such norms go unnoticed even with well-intentioned equity scholars. This speaks to the pervasiveness of white supremacy and how we have all been socialized in the academy, a white institutional space, to perform certain acts even when our research works to dismantle systemic racism. Battey and colleagues (2016) state, "[I]t was one of the lowest performing districts in California...100% of the students served were students of color (73% Latin@, 27% African American), 58% were classified as English language learners, and 93% received free or reduced-cost lunch" (p. 6). The authors relate low academic performance to social constructs of race/ethnicity, language, and income status; perpetuating a narrative of what it means to be Raza. However, it is not necessary for the authors to make this connection because we have been socialized to believe large populations of Raza students relate to low income, language inefficiency, and low academic performance (Gándara & Contreras, 2010). The above quote is not an anomaly in academia, but a confirmation of the storylines we perpetuate of the Raza community. Furthermore, Battey and colleagues perpetuate a norm of telling a partial story of their participants through the nominal demographics of race/ethnicity, language, and socioeconomic status as determined by students receiving free and or reduced-cost lunch.

As previously stated, the format of perpetuating deficit narratives varies and can be less discernible through the use of charts and tables. In the following representative example, Hunt (2015) used a table to provide context to the study, naming students' ethnicities, gender, age, and ability. While these social constructs seem harmless, social constructs carry meaning and provide a racial and social hierarchy of ability. Hunt described the three third graders she worked with in the context of the study:

> This exploratory case study sought to uncover how one third-grade child with LD (i.e., "Bill"), one third-grade child deemed as low achieving (i.e., "Carl"), and one third-grade child deemed typically achieving (i.e., "Albert") ...The researcher classified children by their performance on three standard mathematics tests as typically achieving (25th percentile or above on all tests), low achieving (15–25th percentile on all tests), or LD (below 15th percentile on all tests). (Hunt, 2015, p. 96)

Hunt (2015) provides a hierarchy of ability in her positioning of children based on their mathematical performance. This positioning further maintains a racial hierarchy of ability with the following table where the students' ethnicities become part of the story:

Table 1
Student characteristics.

Name[a]	Age	Gender	Ethnicity	LD status and IEP goals	Performance, Woodcock Johnson III (Percentile)	Key Math-R, mental calculation (Percentile)	Key Math-R, numeration (Percentile)
Albert (TA)	9	Male	Caucasian	None	37th	35th	45th
Carl (LA)	9	Male	Hispanic	None	16th	15th	20th
Bill (MLD)	9	Male	Hispanic	LD, math-based	9th	4th	6th

[a] Names have been changed to protect student identities.

Figure 1. Table from Hunt (2015).

In this example, students' ethnicities are not relevant to the rest of the study. Hunt does not mention any more about how their ethnicities play a role in the context of her study, being Caucasian or Hispanic as she described, is not influential in any other parts of the article. Therefore, it is important to take a critical look at the reasons we are including nominal characteristics when providing context to our research.

Furthermore, some authors perpetuated dominant narratives of a racial hierarchy without the use of numbers to describe the population. For example, Selling (2016), described the participants in her study as follows:

> Jorge, Luke, and Carlos had all finished 7th grade in their various schools, but they differed noticeably in their prior academic achievement in math. Luke had previously found success in school math, achieving an A in the final quarter before the summer. In contrast, Jorge arrived at summer school an F, and Carlos had arrived with a D. Jorge and Carlos are both [Raza]. Luke is White (p. 193).

Selling's discourse did not use numbers or percentages to present a racial and social hierarchy based on letter grades. Selling makes it a point to identify the ethnicity of each participant after discussing their academic abilities, positioning the Anglo student as successful and the Raza students as unsuccessful. While Selling does argue Jorge and Carlos find success and contribute to the mathematical discussions in positive ways in the findings of the article, the storyline in the description of the population being studied perpetuates a racial hierarchy of ability with Anglo students at the top and Raza students at the bottom.

Finally, we would like to consider the following example where Gutstein (2016) provides a detailed history of the school where his study took place. Gutstein states:

> Lawndale has suffered disinvestment and neglect for years but has a strong history of activism and efforts toward community betterment. White flight occurred in the 1960s and 1970s, and Lawndale became overwhelmingly populated by people of color, many working in nearby factories. Deindustrialization seriously injured Lawndale: Chicago lost 330,000 manufacturing jobs from 1967–1990 (Betancur & Gills, 2000). Concurrently, the city cut services, property tax revenue fell, and the area suffered. Nevertheless, individuals, community and civic organizations, and churches throughout the neighborhood have worked hard to improve conditions, secure more city support, and develop cultural programs and social services (p. 462–463).

Gutstein, however, goes on to perpetuate the norms of mathematics education researchers by including nominal social constructs to provide context to his study, stating, "Each of the four schools on campus has roughly 375 students, originally 70% Latin@, mainly from Little Village, and 30% Black, from North Lawndale…Sojo has overwhelmingly low-income (approximately

98%) students of color (100%). Students' ACT scores averaged 16.0" (p. 463). The history included in this study provides the reader with an understanding of how racism and capitalism concurrently impacted the community and schools. The history situated Gutstein's work within historical, racial, and social contexts as opposed to being neutral or blind to how these factors impact the community, schools, and students. Gutstein also provides us the opportunity to consider and compare how the nominal social constructs tell a colorblind and race neutral story of the same context, sans historical and social influence on the community.

As the field continues to provide research from only one perspective, that of Raza who are low income, low performing, English language learners, we argue, using nominal social constructs, such as race/ethnicity, class, gender, and ability is problematic when these demographics are not considered in historical contexts. The U.S. has a long history of defining citizenship, ability, and success from an Anglo, male, middle- and upper-class perspective (Martinez, 2020; Muñoz, 2007; Yancey, 2004). Furthermore, the demographics we use to provide context to studies are socially constructed in order to justify privileges or withhold privileges from certain groups (i.e., racism, sexism, classism). Therefore, we have been socialized into bringing in assumptions about each of these nominal social constructs; using demographics to provide context to our work perpetuates dominant narratives about equal opportunity, who can do mathematics, and what it means to be Raza. By including historical and racial contexts within our work, we not only acknowledge how history and racism influence our communities, but we also rehumanize our work and the communities with whom we work.

Discussion

Feagin & Cobas (2014) assert that "[m]ost [Raza] regularly face social environments where whites have the power to racially characterize who they are, including their racial identities" (p. 24). In this article, we use critical race theory and Latinx critical theory as a lens to critically analyze the narratives specific to Raza in mathematics education research. We find it necessary to take a critical look into the literature and stories mathematics education research values and perpetuates of Raza populations based on its choices in publications. Our findings reveal, question, and disrupt the ways we position Raza, and more broadly our participants in general, through our publications. We argue for a more critical look at the field of mathematics education research and the norms that have been set for conducting, disseminating, and reflecting on research endeavors.

Our findings highlight the deficit narratives being perpetuated of Raza populations through the descriptions of La Raza in mathematics education research. The purpose in providing details about race, ethnicity, gender, class, and ability are justified in order to give context to the study. These demographics are included to tell the reader important information, but we cannot determine what information these percentages and descriptions are providing to our audience. We argue the need to be more critical of how we are positioning the populations with whom we are working; they are the ones providing information to us, not the other way around. We need to be respectful of the narratives we are providing for others to read and make sense of. Instead of providing surface level characteristics, which are stereotypes, perpetuating deficit narratives, and complying with and continuing the narratives of a racial hierarchy of ability and belongingness, we need to dig a little deeper with the context of our research. Providing information on the history of the place, the organizational logic, laws and policies in place which impact the humans with whom we work, and other factors which place our human participants in their current situations provides pertinent information for the reader to understand the research and findings.

Furthermore, it also prevents the reader from having to make assumptions about meritocracy or a long history of discrimination, policies, and social hierarchies about who belongs and who is capable.

References

Anzaldúa, G. (1987). *Borderlands/La Frontera: The new mestiza*. San Francisco, CA: Aunt Lute Books.

Battey, D., Neal, R. A., Leyva, L., and Adams-Wiggins, K. (2016). The interconnectedness of relational and content dimensions of quality instruction: Supportive teacher-student relationships in urban elementary mathematics classrooms. *Journal of Mathematics Behavior*, *42*, 1–19.

Bell, D. (2018). *Faces at the bottom of the well: The permanence of racism*. New York, NY: Basic Books.

Bicer, A., Capraro, R. M., and Capraro, M. M. (2017). Hispanic students' mathematics achievement in the context of their high school types as STEM and non-STEM schools. *International Journal of Mathematics Education in Science and Technology*, 1–16.

Delgado, R. & Stefancic, J. (2017). Critical race theory: An introduction. New York, NY: New York University Press.

Feagin, J. R., & Cobas, J. A. (2014). *Latinos facing racism: Discrimination, resistance, & endurance*. New York, NY: Routledge.

Gándara, P. and Contreras, F. (2010). *The Latino education crisis: The consequences of failed social policies*. Cambridge, MA: Harvard University Press.

Gomez, C. N., Jones, S. R., Tanck, H. (2020). "Whenever my mom speaks Spanish at home, it helps me understand more math": Reflections on the testimonios of bilingual Latinx students. *Teaching for Excellence and Equity in Mathematics*, *11*(2), 43–51.

Gonzalez, G. G. (1990). *Chicano education in the era of segregation*. Denton, TX: University of North Texas Press.

Gutiérrez, J. A. (2001). *A gringo manual on how to handle Mexicans*. Houston, TX: Arte Público Press.

Gutstein, E. R. (2016). "Our issues, our people—math as our weapon": Critical mathematics in a Chicago neighborhood high school. *Journal for Research in Mathematics Education*, *47*(5), 454–504.

Haney Lopez, I. F. (2006). *White by law*. New York: NYU Press.

Harper, F. K. (2019). A qualitative metasynthesis of teaching mathematics for social justice in action: Pitfalls and promises of practices. *Journal for Research in Mathematics Education*, *50*(3), 268–310.

Hunt, J. H. (2015). Notions of equivalence through ratios: Students with and without learning disabilities. *Journal of Mathematical Behavior*, *37*, 94–105.

Jackson, C., Wilhelm, J. A., Lamar, M., and Cole, M. (2015). Gender and racial differences: Development of sixth grade students' geometric spatial visualization within an earth/space unit. *School Science and Mathematics*, *115*(7), 330–343.

Martínez, E. (2017). *De colores means all of us: Latina views for a multi-colored century*. Brooklyn, NY: Verso.

Martinez, M. M. (2020) *The injustice never leaves you: Anti-Mexican violence in Texas*. Cambridge, MA: Harvard University Press.

Molina, N. (2014). *How race is made in America*. Berkeley and Los Angeles, California: University of California Press.

Muñoz, C. (2007). *Youth, identity, power: The Chicano Movement* (Revised and expanded edition). New York: NY: Verso.

Peller, G. (2012). *Critical race consciousness: Reconsidering American ideologies of racial justice*. New York, NY: Routledge.

San Miguel, Guadalupe. (2001). *"Let all of them take heed": Mexican Americans and the campaign for educational equality in Texas, 1910-1981*. Texas: TAMU Press.

Selling, S. K. (2016). Learning to represent, representing to learn. *Journal of Mathematical Behavior*, *41*, 191–209.

Swanson, D. (2020). *Cult of Glory: The bold and brutal history of the Texas Rangers*. New York, NY: Viking.

Williams, S. R. and Leatham, K. R. (2017). Journal quality in mathematics education. *Journal for Research in Mathematics Education*, *48*(4), 369–396.

Yancey, G. (2004). *Who is White?: Latinos, Asians, and the new Black/Nonblack divide*. Boulder, CO: Lynne Rienner Publishers.