Grappling With the Messiness of Becoming Antiracist Educators Through Learning our Historias

Mallika Scott
California State University, Fullerton

Sandra Zuniga-Ruiz
San José State University

Anselma Martinez Gomez
Virginia Rocca Barton School

Tai Phan
Santa Ana Unified School District

Abstract

We use vignettes from two research projects to illustrate how we seek to engage with the messiness of becoming antiracist educators. We show how we center historias in mathematics to affirm individual experiences and create opportunities to disrupt white supremacy in math education. We find that such work is complex and nuanced, requires deep and critical engagement from researchers and prospective elementary teachers, and entails creating authentic relationships that allow for vulnerability and foster solidarity within and beyond institutional contexts.

Discussion And Reflection Enhancement (DARE) Pre-Reading Questions

1. How have aspects of your own identity impacted your experiences as a math learner?
2. How have you thought about supporting students to grapple with issues of race and racialization in mathematics?
3. How do you create opportunities in your mathematical learning community to make space for vulnerability and solidarity with your students?

Mallika Scott (mhscott@fullerton.edu) is an Assistant Professor in the Elementary and Bilingual Education Department at California State University, Fullerton. Her research and teaching aim to support aspiring and practicing teachers to foster new mathematical possibilities in schools that cultivate and honor the dignity of all people.

Sandra Zuniga-Ruiz (sandra.zunigaruiz@sjsu.edu) is an Assistant Professor in the Teacher Education Department at San José State University. Her work is informed by her experiences growing up in a predominantly Mexican immigrant community, her desire to become educada in mathematics, and her commitment to support and serve the next generation of educators teaching in the barrio.

Anselma Martinez Gomez (anselma.gomez@alisal.org) is a 6th-grade maestra in east Salinas, California. She has been working with K-12 students for 3 years, and this is her first year teaching in her own classroom. She aims to create an inclusive and culturally responsive classroom environment for all of her students.

Acknowledgement:
Sandra Zuniga-Ruiz's work is supported by the National Academy of Education/Spencer Dissertation Fellowship. Opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Academy of Education/Spencer Foundation.

Grappling With the Messiness of Becoming Antiracist Educators Through Learning our Historias

Mallika Scott, Sandra Zuniga-Ruiz, Anselma Martinez Gomez, and Tai Phan

We, four non-Black women of color - maestras, mothers, daughters, learners, immigrants - come together to share our historias in our conceptualization of antiracist work in mathematics education. We are intentional about our use of the word "non-Black" to disrupt the continued erasure of Black people through general terms such as POC. We use "historias" in contrast to stories as we understand historias to be collective and historical beyond the individual person. We all have lived and worked in highly segregated communities composed of majority non-Black people of color with a multiplicity of intersectional identities. Tai is the daughter of Vietnamese immigrant parents, an aunt, and a 5th-grade teacher. Anselma is an immigrant mujer from Michoacan, Mexico, a daughter, sister, and a 6th-grade maestra (teacher). Sandra is the daughter of an immigrant mother, the mother to a brilliant happy child, and an educator committed to justice. Mallika is the daughter of a South Asian immigrant mother and a White father, a single mother to two beautiful sons, and a teacher educator. In this paper, we tell stories from projects in two different communities where Mallika and Sandra were researchers/educators and Tai and Anselma were co-participants and pre-service educators. Through our collective historias, we illustrate how we conceptualize what it means to take an antiracist stance in mathematics education.

We each come from communities that have tended to hold colorblind ideologies where there are few opportunities to name racism explicitly. Our multiplicity of identities come with privilege and marginalization that can be messy to recognize and untangle. In our work in education, we seek to engage in antiracist teaching in ways that honor the complexity of our identities while also working to fight and challenge the anti-Blackness that pervades our society. For us, working toward antiracism in mathematics education entails centering historias to affirm individual experiences and to provide opportunities to recognize and disrupt ideologies of white supremacy (Marshall & Chao, 2018; San Pedor & Kinlock, 2017; Sengupta-Irving et al., 2013). We present vignettes from two research projects to illustrate how historias can become a resource for prospective teachers to grapple with the messiness of disrupting dominant ideologies and to learn to see children more fully and to connect with them as human beings.

Through these vignettes, we hope to illustrate the opportunities for learning that can become possible when we create spaces that support aspiring teachers to share their own experiences with mathematics and collectively use them as a resource to make sense of intersections of identity, ideology, and mathematics. These experiences with mathematics are fraught with the tensions inherent in living and working within systems that we are hoping to change. We aspire to support teachers to make sense of the ways these systems are highly constraining, while also exploring our agency as individuals to shape our own historias. Inviting historias in this way requires ongoing attention to the relational aspects of learning communities to create spaces that allow for vulnerability and foster a sense of solidarity. We consider this work to be an ongoing process of becoming antiracist educators -- a journey of learning and growing that is never fully finished.

Centering Historias: Mallika & Tai

Mallika and Tai met over Zoom in August 2020 in a math methods course that Mallika taught in the first-ever Ethnic Studies cohort in our university's K-8 teacher credentialing program. Tai opted into this cohort and was a student in the course. Over the course of the semester,

our math methods community became very close; as Tai wrote in a course reflection, "Although this class was through Zoom, I truly felt that our class had an amazing bond. We supported, cared, encouraged, cried, and laughed with each other." This strong sense of community became possible because we collectively created a space where we could share with more vulnerability than is typical in academic environments. Mallika intentionally chose to be vulnerable about the challenges she was experiencing as a single mother and early career faculty member during a global pandemic, and she created opportunities for Tai and other members of her cohort to be vulnerable with her and with each other. For example, students each kept an online journal where they were invited to share both academic and personal reflections and we took time during our class sessions for personal connection and to discuss the many upheavals in our lives from acts of racial violence to evacuations from wildfires to the anxiety of the 2020 election. Creating this type of close community where students could be open, honest, and vulnerable with each other built a foundation where students could engage in difficult and intimate conversations about the ways ideologies of white supremacy impact mathematical learning, both for themselves and for children in classrooms.

Mallika's Research Vignette

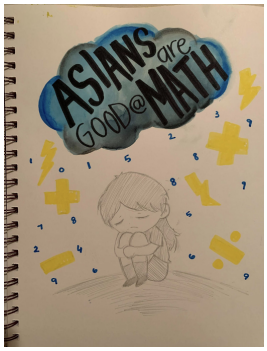
To illustrate the ways that personal experiences can become a window into exploring how identity, ideology, and mathematical learning are intertwined, we use examples from Tai's work during the methods course. I reached out to Tai to collaborate on this paper because her work exemplifies the learning that can become possible through engaging with our own historias. Given our different time constraints and work responsibilities, we decided that I would take the lead on writing, with Tai providing input and feedback along the way.

At the beginning of the course, students write a letter about their experiences with math and create an accompanying art piece. With this cohort, I took a question I had used before ("What messages did you receive about yourself and about mathematics during your journey?") and added the prompt, "How were these messages related to aspects of identity (e.g. race, class, gender, (dis)ability, cultural or linguistic background etc.)?" This question was intended to help students begin to use their own experiences as a resource to make sense of how mathematics is entangled with identity and with larger social forces. Tai started her letter by writing:

> My math journey was quite a rocky one if I do say so myself. I came to the United States at the age of four from Vietnam. I am pretty sure you know that Asian stereotype: Asians are good at math. Well, I am definitely not one to fit into that category. It also does not help that I could not speak and understand English at the time, so this made matters worse for me when the teacher tried to communicate with me. I was absolutely horrible at multiplication tables. I felt that this made me despise math even more so because it was just constant memory drilling. It was even more difficult for me because I grew up in a family of math scholars. When they saw my grades in math, they would punish me and make me do tons of worksheets while yelling at me when I got the wrong answers.

With this assignment, I was struck by the creative ways Tai conveyed the powerful emotions math evoked for her and connected these with her experiences in school, her personal background, and ideologies embedded in the racial narrative that "Asians are good at math." Evident in her letter and artwork (see Figure 1) are the ways her experience was impacted by intersecting aspects of identity, including her racial identity, her linguistic background, and her positional identity within her own family. In addition, Tai connected her experience to curriculum and pedagogy when she highlighted the emphasis on memorization. As a follow up assignment, students interviewed someone in

Figure 1
Tai's artwork



their lives about their experiences with mathematics. Tai chose to interview her best friend who also identified as Asian and had to navigate the same racial narratives. She described the ways her friend, as the oldest child of parents who did not speak English, began at a very young age to manage bills and to research and apply for programs like Medi-Cal/Medicaid that could help support his family. In describing their contrasting experiences, Tai wrote that they "both experienced the Asians are good at Math stereotype; but, he turned that into a positive drive in his life and strived for a higher math education." Interviewing her friend added nuance to Tai's thinking about racial narratives and individual agency, and it provided an opportunity to consider the role of mathematics beyond educational institutions, in the everyday lives of people she knows.

Across these two assignments, Tai made connections between personal experiences, specific math contexts, and ideologies such as racialized hierarchies of mathematics ability (Martin, 2013, 2019). This type of reasoning was evident across Tai's participation in the methods course. For example, a few weeks later, in a journal reflection on readings and a video about anti-Black racism and white supremacy in the mathematics classroom, Tai intertwined her own personal experiences with issues of systemic racism in mathematics. She began by commenting: "Many teachers do not realize that they bring in their personal biases into the classroom. I have personally experienced this myself as a student and it is painstakingly detrimental to my studies. I cannot imagine what Black students have to endure." Here, Tai drew on her own experience with bias to empathize with Black children while also implicitly acknowledging the ferocity of anti-Black racism in US schools by naming her limitations in knowing their experience. Tai used her personal experience to critically reflect on mathematics education and to find solidarity with children as mathematical learners (Scott & Philip, under review).

As Tai engaged in this type of reasoning and began having new experiences with mathematics in the course, her own relationship with mathematics began to shift. In her closing course reflection about what she learned she wrote:

> I was so scarred from my haunting past of "Asians are good at math" that I restricted myself to grow. [...] I now feel that I am capable in taking on all types of mathematical problems. In the past, I thought that in order to be considered good at math, you needed to get 100% on all the timed multiplication tests. Now, I believe that everyone has the capabilities of being good at math when we allow them to share aloud their opinions and ideas.

While Tai again used strong language to connect her past negative mathematical experiences with ideologies about mathematics, she also showed a new sense of agency and competence with mathematics. She even returned to the topic of multiplication tables from her opening letter as she named a more expansive view of mathematical competence than she experienced in school. Reading Tai's final reflection was emotional for me because it seemed like she experienced a form of healing in our mathematics community, and it felt deeply meaningful to me to be part of her journey. When I asked Tai to share some of her thoughts after reading this vignette and reflecting on her experience in the course, she commented on the ways the course helped her push against the pervasive deficit thinking in math classrooms: "One biggest thing that I never want to bring into the classroom is detrimental thinking. I have encountered so many educators that said 'Oh, they won't be able to do that.' Well, how will you know if you never try? Children have the ability to surprise you with what they know."

Matemáticas Pláticando: Anselma and Sandra

Anselma and Sandra met when Sandra was a graduate student and Anselma was an undergraduate student at a Hispanic Serving Institution, intending to become an elementary teacher. As the years progressed, both Anselma and Sandra got to know one another better, and built trust and care for one another, using their lived experiences to connect and reimagine children's mathematical experiences grounded on the enseñanzas de nuestras madres, para un futuro mejor (teachings from our mothers towards a better future). The support for one another came from having difficult conversations about immigration, being labeled ESL learners and having immigrant mothers who work *en el campo* (in the fields). This vignette is written through Sandra's point of view as she was the main writer with Anselma providing feedback

and input throughout the process. The collaborative nature provided opportunities for Anselma to see the writing process as well as to capture authentically her historia.

Sandra's Research Vignette

For my dissertation study, I engaged in a six-month long project with four self-identified prospective Mexicana maestras (Inez, Anselma, Luz and Jenni [all pseudonyms except Anselma]) who had a commitment to educational justice. I had known the mujeres (women) for some years and we had built a relationship in various capacities. My role was to be both a researcher and a participant of this space. One of the goals was for us to engage in *pláticas* (critical conversations) about learning mathematics and justice with explicit attention to race. Knowing who they were was an integral component to the design and goals of this learning community. That is, there were issues I was attending to based on what I knew from our previous experiences. For example, the prospective maestras had narrow and proceduralized math experiences, thus developing more expansive views of mathematics was part of the design process to think about justice and racial equity. It also meant historias were centered in our pláticas to create opportunities to be both vulnerable and in solidarity with one another.

During our second plática, I wanted the prospective maestras to engage with the idea of mathematics as a cultural activity. The women discussed the Oksapmin counting system and the study done in Brazil about candy sellers (Saxe, 1981, 1988). The goal was for the women to expansively view mathematics as an everyday activity. Furthermore, I aimed at disrupting the binary of math/non-math people, centering the use of mathematics in our everyday lives and expanding narrow ideas of math.

At the end of the check-in, I asked the women if they had any other thoughts about identity and mathematics. Inez shared that she was thinking about her father and his own mathematical identity. This sparked Anselma's reflection. She asked,

> "Is that like identidad? How your math identity changes. Because that is what I was thinking. My mom no termino la primaria (didn't finish school) and she barely reads. But with numbers, with mental math and money. She is really good at that. She used to sell fruta (fruit). She goes on to sell temporada de maiz (corn season), y luego vendían eso en el pueblo con medidas (they would sell in town with measurements). She was really good at that. Y le pregunto, ¿cuánto es un litro? (I ask her, how much is a liter?) And she would be like es más o menos esto (approximately this). Y yo ni se que es un litro! (And I don't even know what a liter is) Pero, it's like, a ella se le introdujo, hizo experience (But, it's like, she was introduced, she had the experience). Is that her identity with math? And my identity is more like school?"

Anselma was starting to grapple with what it means to be a doer of mathematics and who gets to do it. Through her personal reflection about her mother and her own mathematical experiences, the juxtaposition of "Is that her identity with math? And my identity is more like school?" framed Anselma's new understanding of mathematics identity as situated. Furthermore, such conversation began to center the community and experiential knowledge Anselma's mother possessed as she navigated harvesting elote and selling it. Anselma continued:

> "I have never thought about it, yeah, I love math and all that. Pero tambien (also) now that I think about my mom. I am not like her. The reason why I went to math was because I came here. In Mexico I was not into math. No le di importancia (I didn't care for it). I would do the math because I had to. It was the only subject que le entendia (that I understood). It was a review, you are good at it, me la crei (I believed it) and I stuck with it. I am so good at math, but I had to work extra for that. I would stay after school, I would go to tutor in the morning. At 6 am I was already at my high school! And people would tell me I was good at it, and I would then work hard for it so I could be good at it! Aahh! So maybe I am not as good at math as I thought."

Again, through reflecting about the experiences of her family, she began to see the multiplicity of meanings between being good/not good at math (Yeh & Rubel, 2020). While such binaries are indeed problematic, it is the beginning of the messy and complex (re)learning that needs to happen as we engage in critical conceptions of mathematics. For Anselma, this meant challenging the notion of being good at math and connecting to her schooling experiences in the US and in Mexico. Disrupting ideologies such as these is a powerful first step

to engage in understanding the racialization that happens in mathematics since race is rarely explicit (Philip, 2011). Furthermore, for Anselma, being positioned as a "math person" supported her in continuing her studies in high school and college. During her initial interview, Anselma shared about the challenges she experienced as a labeled "ESL student" and how math became her safe place and what motivated her to go on to college. This alludes to the complexity of attending to the disruption of such ideologies while honoring Anselma's lived experiences.

As part of the check-in during the following plática (Plática 3), Anselma brought up her belief of being good at math as a natural gift, as she didn't realize how much effort she had put in her math classes. She then posed the following question to her co-participants: *Is math a gift or something we work for?* In the coming days, Anselma wrote in her reflection: I see a connection between what we've discussed to how my relationship with math is not as "good" as I thought. My identity as a math "lover" was created by forcing myself to understand it and prove my other teachers wrong about how "smart I was.'" This shows how Anselma's understanding of her relationship with math had become more nuanced – her use of "good at math" was expanding to include her position both in math and in her other classes. Anselma was beginning to connect ideas about being good at math as an innate ability, smartness and how that positioned her a particular way in the eyes of her "other teachers" who positioned her in a low status because of being an ESL student. These ideas are inherently connected to racialized hierarchies about who is considered smart and who can do mathematics. This illustrates the messiness of unpacking ideologies that are rarely explicit and uphold white supremacy.

As the pláticas continued, the women continued to problematize understandings about race and liberatory mathematics. For Anselma, having opportunities to discuss these complex issues helped her understand more about the race and racialization embedded in her everyday life and the challenges that may arise. During one of her pláticas she explained, "No se nos inculca hablar de esto (we are not raised to speak about this [*referring to race, racialization, anti-Blackness*]) . I can talk about language, nationality but not race. So como sacamos lo que aprendemos aqui? (how do we move beyond this?)." For Anselma, pláticas were a safe space to talk about such issues but there was a need to move beyond the space towards action. During her final interview, when asked about race and mathematics education, Anselma responded,

> "Me toma mucho trabajo hablarlo y decirlo, yo digo viva la raza. Como de revolución–pero eh, race? (It takes a lot of work to speak about it and say it, I say "long live the raza/race" as a form of revolution, but race?) That's different. Que es raza? (What is race?) Nos estamos racialized but we are all humans. These factors are created, it is a social construct, but it is there, people use it, it exists. We have created it. Como nos desasemos de eso? (How do we get rid of it?) Before, I would not consider it [*referring to race and math*]. I would not – no le miraba la relacion (I did not see the relationship). Pero de las pláticas, it is important. Let's think about humans, not just statistics."

Later in the interview, she commented, "We see people in math and we think they are the most inteligentes (smart). Mostly in math it is male, and when we learn math, son ancestrales blancos (white ancestors)" concluding, "Here in los Estados Unidos we are all segregated." Anselma continued to share about her local community that is segregated and the narratives that are constructed about a "worse school" (the one she attended) which happen to be predominantly Latinx while the "good school" is predominantly White. Anselma was understanding the many layers embedded in a racialized society that perpetuates hierarchies of groups of people. While anti-Blackness was part of our conversations in the pláticas, it did not come up for Anahi when speaking about race, justice, and mathematics learning during the final interview. Yet, Anselma was making new connections between white supremacy and mathematics, laying the foundation for digging more deeply into specific aspects of racism in schools such as anti-Blackness.

Anselma continued to understand and solidify her commitments to better educational opportunities for her future students while holding on to the challenges that may arise. During one of the platicas the women were asked how one could reimagine education. Anselma shared about the importance of cultivating opportunities for children to speak up and have a voice:

> "And it goes back to eh… cómo enseñarle a los niños (how to teach children). Esta falta de confianza, de esta voz (this missing confidence and voice) it starts

> from there, it starts from the beginning. Matemáticas ~~s~~iempre es algo bien individual (Math is always very individualistic). And that was the subject that gave me confidence to be where I am at right now, even though, because fue el trabajo más individual (it was the most individual experience)… But for the other subjects I felt intimidated from the rest. In math, en mi propia burbujita porque nadie me molestaba. (in my own bubble, no one bothered me) … For me, I loved that. I was encouraged to do that, math approved that isolation. So I guess we would go back to mathematics and make it more like you having a voice and not just you."

Through her reflection, Anselma connected her own experiences in schooling with those of her future students. Anselma was not only critical of the ways that she did not develop a voice because of the individualistic nature of mathematics, she was also aware of the need for children to develop that voice. This was the beginning of seeing children's humanity and the value of creating dignity affirming learning communities. While these conversations were the beginning of this never-ending learning trajectory, Anselma noted during her final interview that her commitment to justice has grown and this is the beginning of what she calls "cultivando el hambre de aprender" (cultivating the hunger to learn) for all her students.

Thinking Across Our Stories

Tai and Anselma illustrate the power of reflection and of the willingness to be vulnerable with past experiences. For Tai, that meant digging into racial storylines about mathematics that are prevalent in our society and the effects these may have on people who do not fit into the mold. These ideologies along with being othered for being an "ESL" student constrained and dehumanized Tai. In contrast, Anselma grappled with how she was perceived as "good at math" while also being an ESL student. For Anselma, leveraging her smartness in mathematics helped to counterbalance her dehumanization in classes where she was expected to speak perfect English. Both examples illustrate the complexity of the multiplicity of identities that the women possess. Mathematical identity does not simply reside in a vacuum but rather it is shaped by our experiences, and intersects with other identities. The positions of both of these women are important: they stand at opposite ends of the spectrum of mathematical identity, but there is (re)learning happening as they reflect on their past experiences. Furthermore, their historias opened possibilities of learning who they are and who they seek to become as educators. Exploring their own historias also created new ways to view and think about children. Tai thought about the ways anti-Black racism is embedded in our society and she developed a strong commitment to bringing an anti-deficit lens into the classroom. For Anselma, centering children's hunger for learning and voice helped her imagine new possibilities of learning for the children. Ultimately, both women demonstrate agency in navigating dehumanizing and inequitable systems and structures.

Mallika's and Sandra's Journey of Becoming

Mallika and Sandra met during their graduate studies several years ago. As two women of color in a mostly White space, we gravitated to one another and supported each other in our academic journeys. Mallika had begun graduate school several years before Sandra, completed her studies in May 2019, and then moved away for a job, no longer sharing the same academic spaces. In April 2020, we reconnected when we found ourselves attending the same virtual conference about justice in education. Our joy in finding each other during such a difficult moment sparked the beginning of a deeper collaboration in which we started to think across our different projects to explore issues of justice, mathematics, and teacher learning that are close to both of our hearts. Thus, our relationship has evolved throughout the years with a strong and explicit commitment to support one another, to learn with each other, and to contribute to more just educational opportunities for our students and communities.

We offer these stories from our projects with the hope of showing the power of treating historias as an opening to consider identity and ideology in the mathematics classroom and to begin to imagine new possibilities for children. This work is messy and personal, and we have found in our own journeys that academic spaces rarely provide space and support to engage with that messiness. In this current moment, when antiracism is receiving more attention, we are simultaneously hopeful and apprehensive. Teacher education can often emphasize the

development of specific knowledge and practices, without giving as much attention to the relational work or complexity of justice-oriented teaching (Bartolome, 1994; Philip et al., 2018). The personal mathematical experiences of Tai and Anselma help to illustrate the wide variety of mathematical journeys and the potential for deeper thinking and for healing when we create learning environments that honor hese diverse experiences as valuable resources for learning. Their historias demonstrate ways to push back on essentialized categories such as "English Language Learner" to allow for more nuanced and complex understandings of ourselves and of children. In addition, inviting personal experience as a resource can counter the tendency in teacher education to reproduce white supremacy by maintaining firm boundaries between the personal and academic and narrowly defining appropriate ways of knowing and being. Creating spaces where novice teachers feel comfortable sharing vulnerably about their personal experiences and find solidarity with each other and with children requires deliberate and ongoing attention to the relational, as was evident in the vignettes we shared. Whatever your role in education, we invite you to consider how your own historia with mathematics and the historias of the people you work with might provide openings to think more deeply about the ways white supremacist ideologies impact mathematical learning. We also invite you to be in community with others in ways that expand beyond the narrow ways of knowing and being that often dominate academic spaces to support people to bring their full selves to mathematical teaching and learning.

Our efforts toward becoming antiracist mathematics educators remain a work in progress needing ongoing reflection and revision. The narratives we've shared suggest the need for more interdisciplinary and integrated approaches to antiracist education, both in teacher preparation and in K-12 classrooms. For example, while Tai thought deeply about how racialized hierarchies of mathematical ability impacted her own experiences and were related to specific mathematical contexts, the methods course did not offer her opportunities to make sense of how the racial narrative of "Asians are good at math" is intertwined with capitalism, immigration, the Cold War, and anti-Blackness in education (Martin, 2019; Shah, 2019). We have found mathematics to be a particularly challenging space to make these connections because of the entrenched history of the discipline being treated as objective, apolitical, and acultural (Agarwal & Sengupta-Irving, 2019). Collaborating with educators across disciplinary boundaries could allow for deeper exploration of the ways white supremacy is embedded across systems and connected to the larger sociopolitical context. We hope the stories we have shared here can spark future collaborations that span different contexts and disciplines to further explore connections between identity and ideology through learning our historias.

References

Agarwal, P., & Sengupta-Irving, T. (2019). Integrating power to advance the study of connective and productive disciplinary engagement in mathematics and science. *Cognition and Instruction*, *37*(3), 349-366. https://doi.org/10.1080/07370008.2019.1624544

Aguirre, J. M., Mayfield-Ingram, K., & Martin, D. B. (2013). *The Impact of Identity in K-8 Mathematics Learning and Teaching: Rethinking Equity-Based Practices*. National Council of Teachers of Mathematics, Inc.

Bartolome, L. (1994). Beyond the methods fetish: Toward a humanizing pedagogy. *Harvard Educational Review*, *64*(2), 173-195.

Marshall, A. M., & Chao, T. (2018). Using mathematics autobiography stories to support emerging elementary mathematics teachers' sociopolitical consciousness and identity. In S. E. Kastberg, A. M. Tvminski, A. E. Lischka, & W. B. Sanchez (Eds.), *Building Support for Scholarly Practices in Mathematics Methods* (pp. 279-296). Information Age Publishing.

Martin, D. B. (2000). *Mathematics success and failure among African-American youth: The roles of sociohistorical context, community forces, school influence, and individual agency*. Routledge.

Martin, D. B. (2003). Hidden assumptions and unaddressed questions in mathematics for all rhetoric. *The Mathematics Educator*, *13*(2), 7-21.

Martin, D. B. (2009). Researching race in mathematics education. *Teachers College Record*, *111*(2), 295-338.

Martin, D. B. (2013). Race, racial projects, and mathematics education. *Journal for Research in Mathematics Education*, *44*(1), 316-333. https://doi.org/10.5951/jresematheduc.44.1.0316

Martin, D. B. (2019). Equity, inclusion, and antiblackness in mathematics education. *Race Ethnicity and Education*, *22*(4), 459-478. https://doi.org/10.1080/13613324.2019.1592833

Philip, T. M. (2011). An "ideology in pieces" approach to studying change in teachers' sensemaking about race, racism, and racial justice. *Cognition and Instruction*, *29*(3), 297-329. https://doi.org/10.1080/07370008.2011.583369

San Pedro, T., & Kinloch, V. (2017). Toward projects in humanization: Research on co-creating and sustaining dialogic relationships. *American Educational Research Journal*, *54*(1), 373S-394S. https://doi.org/10.3102/0002831216671210

Saxe, G. B. (1981). Body parts as numerals: A developmental analysis of numeration among the Oksapmin in Papua New Guinea. *Child Development*, *52*(1), 306-316.

Saxe, G. B. (1988). Candy selling and math learning. *Educational Researcher*, *17*(6), 14-21.

Scott, M., Philip, T.M. (year) "We ask so much of these tiny humans": Supporting beginning teachers to honor the dignity of children as mathematical learners. [manuscript submitted for publication]

Sengupta-Irving, T., Redman, E., & Enyedy, N. (2013). Re-storying practice: Using stories about students to advance mathematics education reform. *Teaching and Teacher Education*, *31*, 1-12. https://doi.org/10.1016/j.tate.2012.10.007

Shah, N. (2019). "Asians are good at math" is not a compliment: STEM success as a threat to personhood. *Harvard Educational Review*, *89*(4), 661-686.

Yeh, C., & Rubel, L. (2020). Queering mathematics: Disrupting binary oppositions in mathematics pre-service teacher education. In N. Radakovic & L. Jao (Eds.), *Borders in mathematics pre-service teacher education* (pp. 227-243). Springer.

Discussion And Reflection Enhancement (DARE) Post-Reading Questions

1. Anselma uses a very interesting phrase, *cultivando el hambre de aprender.* How are you thinking about "cultivating the hunger to learn" in your learning community?

2. Tai's experience with racial narratives shaped her mathematical experiences profoundly. What new insights do her experiences offer us as teachers and teacher educators? Given that narratives and racialized hierarchies of ability remain prevalent, what might we as teachers and teacher educators do to address the harm they may cause for students?

3. Tai and Anselma both grapple with the ideology of narrow definitions of mathematics, what other ideologies exist in mathematics that uphold white supremacy? How are you thinking about addressing them in your learning community?

"DARE to Reach ALL Students!"

TODOS Mathematics for ALL