



Mathematics Education and Social Justice: A Conversation with Danny Martin

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Abstract

Danny Martin is a professor of Education and Mathematics and University of Illinois Chicago. His groundbreaking scholarship on the mathematics socialization of African Americans has led to seminal pieces on the roles of race, identity, and mathematics education for Black children that critically inform current dialogues about mathematics education and social justice. His work inspires many scholars, teacher educators and teachers working to transform mathematical experiences of young people, especially those historically marginalized in schools. We have known each other for 20 years and have co-authored a book together. He is my friend and colleague, someone I continue to learn with and from in the fight for an equitable and just mathematics education for our nation's youth. He sat down with me to discuss mathematics education from a lens of social justice. Our conversation expresses evolving views of the mathematics education landscape including why social justice in mathematics education is so important yet challenging; and, what solutions we can radically reimagine as we try to move forward to create the kind of just and humanizing mathematics education we want.

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Julia Aguirre:

Why is mathematics education a social justice issue?

Danny Martin:

Mathematics education is part of the American system. Concerns in our field are, or should be, embedded within a set of larger issues like social justice, racial justice, and economic justice. Schooling, and mathematics education in particular, is just one context of many where the struggle continues: the struggle for just outcomes, the struggle for just experiences and equitable treatment, the struggle against the pathologizing of specific groups and bodies, and struggles against limited opportunities. So math education is not immune. And, while math education is a hopeful context, we need to interrogate it for its role in reproducing those inequities that make a social justice movement even necessary. It is not neutral in the landscape.

Julia Aguirre:

How does your work in mathematics education connect to social justice?

Danny Martin:

My work foregrounds the experiences and outcomes of Black students. That is one thing it does very explicitly. Second, I am very explicit about issues of race – racial justice, racialized treatment, racialized experiences, and racial hierarchy, with respect to Black learners and other learners. Not only how Black learners experience race, racialization, and racialized outcomes but how all learners are impacted by what we know as a socially constructed phenomenon. It includes intersectional concerns; race and class, race and gender, and race and place. Third, I ask questions about the nature of the field. I've talked about math education as a *white institutional space* in terms of demographics, ideology, policy and all that. I've also raised the question of what kind of project is math education? On the one hand, as I said earlier, it has this hopeful side as a social justice project. But it has also, over the years, been in service

of other kinds of projects that seem to work against social justice.

Julia Aguirre:

Tell me more about how mathematics education is a hopeful social justice project.

Danny Martin:

Mathematics education can change lives and change society. In my own life, I have benefitted in many ways from the mathematics education that I received. And I can use mathematics to help me understand my place in the world and why things are the way they are for me and for others. I don't think that should be an exceptional experience. And I think we have many examples of how teachers and young students, for example, are using the mathematics that is accessible to them to understand and change their lives and the world they live in.

Julia Aguirre:

I want to ask you about your early work. You were one of the first people to speak from a scholarship standpoint and very eloquently about Black socialization in mathematics. And, I'm going to ask you to think about that work in relation to the adults you interviewed and the kids you engaged and then ask you to connect to the teacher education work you are involved with for our TEEM audience of teachers, math teacher educators, and scholars.

Danny Martin:

The early work I was doing with Black learners, which included adult learners, parents, and middle schoolers, it didn't really have a teacher education focus. It was initially about the experiences these folks were having. The experiential piece and the identity piece came along with it. But what I think was really interesting was how the narratives from those adults on their schooling experiences and the experiences of their children and the narratives of those young folks, middle school students, were

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actually commentaries about the nature of schooling. There is a lot of information in those commentaries to share with teachers; surfacing for teachers through the voices of Black learners, their mathematics education experiences and their schooling experiences. And, how those experiences implicated teachers and particular forms of pedagogy and particular kinds of interactions to those adults who went back 20, 30, even 40 years, in some cases, to talk about the teachers that they remembered, the episodes in the classrooms, and the impact it had on their lives. That was all very powerful and revelatory because I did not go in with the idea of focusing on the implications for teacher education.

Julia Aguirre:

Why is the struggle for equity and justice in mathematics education so difficult?

Danny Martin:

I think part of it has to do with the fact that it is mathematics. Mathematics has this mystique and aura, that we, and others, have been pushing back on for decades; that mathematics is culture free and context free and has nothing to do with issues of race, identity, and power. It was somehow above the fray. That myth is being shattered. I think there is inertia and recalcitrance with certain corners that really want to keep it the way it is; that math should not be about delving into social issues. If we take this idea of math education as a white institutional space, I think in preserving white interests and making things seem neutral and colorblind, the attention to race, power, and identity has sometimes been thwarted or muted.

Julia Aguirre:

Maybe the context for this question should have been different. Why is the struggle for racial equity or racial justice in math education so difficult? The reason why I say that is because people have made some strides forward and productive inroads for gender. But for white women, in particular. And that whole experience of math being neutral or colorblind was once applied to math being gender-blind, and yet many women would still argue that it is very much a male dominated field with a sexist orientation given their experience. But we don't hear that as much any more. And sometimes I feel that folks that have been strong in their calls for gender equity in mathematics aren't necessarily doing the same in standing *with*

folks when it comes to racial justice and equity in mathematics for historically marginalized groups. And I wonder about why that is happening?

Danny Martin:

Well it goes back to my first response. Math education is no different than the rest of society. We struggle in society to have productive conversations and get some movement and some traction on racial justice issues. So it is no surprise that we struggle in the field for a lot of the same reasons. Conceptually, there is a "white sensibility," but it is also about white benevolence, where sometimes people think that their benevolent efforts, individually and collectively, are enough to side step the conversation or overcome the conversation about race and the real results we need to address. Sometimes it is the clash of identities. For example, a white progressive who is interested in racial justice still has to unpack and understand their whiteness. That is difficult. They will need to probe and understand their own complicity in racial injustice even though they are fighting for racial justice.

Julia Aguirre:

So we talked about why is this still a struggle. And even with using other kinds of justice struggles in math education like gender, so what do you think has to happen for us to move forward and make substantive changes?

Danny Martin:

That is a really big question because I could approach it in several different ways. Let me try this one way, drawing on recent self-reflections about my work and my efforts. I am struggling with the idea of merely *being critical versus being radical*. Much of what I have been reading lately argues for radical agendas, moving beyond incremental approaches that capitulate within the current system. Authors in these texts talk about reimagining a new and different system, where the forms of oppression that we are fighting don't exist. On the surface it is sort of Utopian. But, I think it is important to at least engage in what Robin D.G. Kelley calls the *radical imagination – radical dreaming*. This is where I am struggling. As critical as we are, we are still in a system that wants to absorb us. Look at what happened as a result of my commentary at the NCTM Research Conference last year. Many of us are

starting to rethink and question such institutions. Their response is often to try to bring us into the fold. That is how systems and structures work to absorb the critical. We need to be thinking about new and different systems where we are not having the same conversations over and over again about the power of whiteness, white privilege, and racial hierarchy. In math education we talk about the socio-political turn, the critical moments that we are in, our critical scholarship. But much of this is contained and absorbed by the system. Or, if it gets too critical and borders on the radical then it is actively resisted by the system. But we got to keep that radical imagination alive.

Imagine if a group of us said, for example, “NCTM no longer.” We are going to do something very different. And we are going to try to get those who are like-minded to do something different. Imagine what would happen! Or, can we imagine what would happen? There would be all kinds of movements and efforts to put us in our place and get us back in line so that we don’t dismantle the prevailing structures. They would tell us that what we are proposing is either the wrong time, we should wait, or throw us some bones in the mean time: the incremental approach. This is the thing I’m struggling with. It is the issue for me that makes it harder for me to provide “answers” to what we should do because I know those answers are in the box – the box of the current structure. And my imagination is not as profound as it should be in terms of imagining what the new and different thing should be.

Julia Aguirre:

Right, the system that we are working in was inherently set up as a system of discrimination and yet is it so integral to our social system as we have it. How do you figure out ways to dismantle it and do it in a way with a sustainable replacement? There is a balance to achieve, right? At the same time there have always been voices of resistance and calls for change because it was not working. So being able to hold up that mirror and continue to say this is the reality is crucial. I think one of the things that I feel is different now than maybe even 15 or 20 years ago, one thing is sheer numbers. There are no longer pockets of non-white majority schools and districts. The majority of our nation’s schools are non-white. The indictment is that the system can no longer

sustain itself, even if it wants to, it cannot sustain itself. Otherwise, children are just not going to learn.

Danny Martin:

But, I think the challenge to your point though is that even with the power of demographics we don’t want the new thing to be a reproduction of the old thing where now it is a shifting that you have a different group on top and everybody else is layered in the hierarchy. I think the imagination is that...

Julia Aguirre:

We destroy the hierarchy.

Danny Martin:

We destroy the hierarchy itself. If the next group is lifted up and will do the same thing, we are just going in circles. I think that will be the challenge in the real radical imagination is to get to a point where it is not the case that a new group is exerting power over others.

Julia Aguirre:

I guess for me what is so different is that the system itself can no longer sustain the sorting and ranking that it has because it will implode. But getting people to see that in relation to racial privilege and the power that has been afforded their families, that’s really still a challenge to get folks to think about.

Danny Martin:

And what role we play as math educators. What role do we play in that sort of educative process? How do we work with pre-service teachers and practicing teachers, and to the degree we get into classroom spaces, students, to help them unpack the way our history has unfolded to accomplish what it has accomplished while still being faithful and having some fidelity to our concerns and interests in math education? How do we blend that together?

Julia Aguirre:

Well, we want children to learn mathematics. We want them to enjoy and see all those great things about the domain and also see it as social tools and the way it is being utilized to convey information, to convey misinformation. So having students to be able to develop that part of their understandings, no one is going to argue with that. But the way students get educated mathematically is up for grabs. The

perpetuation of curricular tracking, for example, where students are exposed to different kinds of math depending on the school they attend or the track they are placed in. Experiences with interesting mathematics are not available to everyone.

So, keeping with this view of a *radical imagination*, how will we know we are being successful? What would be indicators that things are changing or that we are now seeing a system that we would want to see? What would be our success indicators?

Danny Martin:

I am reading this book called *Freedom Dreams* by Robin D.G. Kelley that talks about the Black radical imagination. I don't know if he uses it as an indicator but he keeps going back, and this may sound a little corny or soft, but he keeps going back to mentioning of a world where we can *truly love* each other. There are a lot of things that go along with that: respect, empathy, and value. How do we truly get to this place where love is fundamental to our lives and so deep and profound and that we reject all those forms of oppression that we have been fighting against. Because a lot of what is happening is the other side of that. The violence. The violence of policy, the violence of going to school in particular kinds of settings, the violence of what we do to each other in terms of our discourse – the way we talk about children and each other. Why can't we do that in more loving ways? Why can't we talk about children in more loving ways rather than reducing them to their test scores? Or, talk about them in terms of other children being inferior or superior? The racial achievement gap, that is insulting. That is violence against our children. Why can't we develop policies that show that we truly care about the work of teaching and we care about the people who are doing that work? And, in fact, it is not just that we care about them, but that we have a deep and profound love for the fact that they love our children. I'm not going to give you a list of outcomes that we need to achieve, but in terms of the kind of world that I want – Love and respect and empathy, those things go a long way in shaping what we do.

Julia Aguirre:

What you are saying is really fundamental. I think people look for other kinds of indicators. They are not looking for fundamental humanizing, rather than Teaching for Excellence and Equity in Mathematics

dehumanizing, tools. To me when I think of those kinds of things, my head goes to Paolo Freire's work and the ideas of the role education has played to dehumanize or humanize and the role of literacy in that. And, it is so fundamental, yet for many people those three things: love, respect, and empathy in math education is just hard for folks to get their head around. That is a radical way of thinking if we are going to be successful what it would look like. That is fundamental and yet foreign to a lot of people.

Danny Martin:

That is a good way to put it, fundamental yet foreign. You know some people may quibble with foreign, but I get exactly what you are saying. And we know that these things are important. Why can't we base schooling on the love of children? Some students are treated as inhuman. Maybe their actions, getting back to this idea of commentary, maybe that violence that we hear on the news is really a commentary on how we have been treated by society. You have confined us to essentially caged neighborhoods with little resources. And the outburst of violence is not genetic or cultural, but a response. You are telling me you don't love me.

Julia Aguirre:

Right. And that goes to the idea of how is that structured and what are people's individual agency to counter that oppression? At the same time, people can make decisions that are different. It is a constant tension. All of this fundamentally goes back to issues of identity and how identity is formed through one's own storytelling and about how your identity is structured by social forces, many social forces.

So I am going to ask you the last question. What advice do you have for moving forward together on the path of social justice in mathematics education?

Danny Martin:

We have to be committed to being honest and saying and naming things for what they are. Not trying to side-skirt the issues. We have to understand that it is more important to be honest and name things than to placate and capitulate for the sake of maintaining our own individual positions. We have to continue to ask the hard questions about things we have taken for granted: assumptions, institutions, and kinds of scholarship. Although we do our work *in* math

education we have to be critical *of* math education. We also have to be critical about the social justice framing because justice and injustice are locked together. You cannot have one without the other. So to the degree that we argue, push, and move the justice portion forward, it is usually in relation to something that we consider unjust.

Julia Aguirre

So what I hear you saying is that one of things we need to do to move forward together is to maintain a critical eye and, as a collective, engage in the radical imagination and change that we need. And work collectively and hear the multiple voices and multiple perspectives that the communities we work with bring to the table. But part of that is us listening and making sure we convey these ideas (or the communities' experience and knowledge) in our work in teacher education and research. Then, moving forward together requires honesty and being able to say and name things rather than skirt around or worry that you will somehow offend people in power, you soften what you say so they can hear it but softening doesn't necessarily mean they are going to hear.

Danny Martin:

So now many of us are going to be in the position of people representing the current power structure saying to us, "Well, what should we do? What are the solutions?" And here is what I've learned from others more wise than me, there is sometimes a trap in that when people tell you to give them a solution because you give them three or four solutions, those become the goal posts that now people in power can avoid. They can quickly say, "Well, see that is not going to work. We can't do those three or four things for our students." Or "Those three or four things are too difficult" or "We tried to do those three or four things and it didn't work, let's just keep things the same." It is like the danger of reparations. Once given, given. They can just say, "We are done." In their view, they can wipe their hands of all the oppression.

Julia Aguirre:

Using the example of reparations. Even if you are to get reparations it doesn't erase the legacy of slavery. It is part of legal system. It is part of our penal system. It is part of our government system. Until you

address those things, it is not going to change. And those are the things that are hardest.

Danny Martin:

The fundamental stuff as you said earlier. The systemic, fundamental stuff. Sociologist Joe Feagin says race and racism are foundational to this nation. People don't realize or accept that it is foundational. It is wrapped up in the very thing that we are. We can't just wipe it off or clean it off with a towel. It is embedded in everything that we do.

Julia Aguirre:

And I think for many math teacher educators, math education scholars and teachers of mathematics that idea in relationship to teaching mathematics it is just hard for people to make sense of.

Danny Martin:

That's our challenge.

Julia Aguirre:

I think the idea around learning to be honest and naming things and helping people understand that there are no easy solutions is key. You are talking about this radical imagination. This would mean that we would be living in a more just world, right? I can help kids learn math, math is not used as a tool of oppression. I can help kids learn how math is part of our communities and the different ways it's used in different parts of the world, and we are still fundamentally engaging that part of our humanity, our thinking.

Danny Martin:

I think what is interesting, and you have said it several times now and I like this idea, and I know I've read about it, this idea of humanizing mathematics and mathematics education. I'm starting to wonder why we haven't we been more explicit about that. We have these big umbrella terms. We have equity and diversity. But humanizing has a different tone to it: Social justice versus humanizing. If I had to choose, moving forward, it would be this humanizing piece. I want my three-year-old to live in a world where he embraces and understands the humanity of other people and he understands his own humanity and he understands the threats to his humanity. So I think social justice and equity will come along with emphasizing humanity.