

## EDITORIAL

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# A Call for Field Disruptions and Field Connections in Mathematics Education Research

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At the opening plenary of the 39th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education, Rochelle Gutiérrez (2017) suggested that the mathematics education research community should “think not only about more ethical ways of applying mathematics in teaching and learning but to question the very nature of mathematics, who does it, and how we are affected” (p. 2). She proposed that “interaction between different knowledges, different ways of knowing and different knowers” (p. 2) could serve to respond to and perhaps address the precarious state of our planet and our relationship with it. Gutiérrez is not the first leader in the field of mathematics education research to call on the community to think about mathematics education research differently. Twenty-five years ago, Tate (1995) called on the community to rethink policy in relation to equity in mathematics education. He stated that he found the “paradigmatic boundaries of mathematics education somewhat narrow,” and he intentionally modeled his work after scholars who “crossed the epistemological boundaries of their fields to provide a more cogent analysis of important issues facing African Americans” (pp. 425–426). The newly conceived *Field Disruptions and Field Connections* section of the *Journal of Urban Mathematics Education (JUME)* specifically seeks contributions that cross epistemological and methodological boundaries to open up space in the field for new and different kinds of research that does not reify and reproduce White supremacist and settler colonist ways of being and knowing (Stinson, 2017).

The field of mathematics research and mathematics education research more specifically is not known for its readiness to adapt new ways of thinking (Hansen, 2019). Adler and Lerman (2003) proposed that the way that mathematics education researchers describe their research and determine if a piece of research is acceptable within the community is an ethical matter. They posit that these actions are particularly difficult in a field such as mathematics education, which developed into a social science from the disciplinary fields of mathematics and psychology. Because of this, mathematics educators may find it difficult “to problematize current images of good mathematical practice when the focus of the zoom lens is tightly on mathematical

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activity” (Adler & Lerman, 2003, p. 445). As such, they advocated for a broadening of what counts as mathematics education research, stating,

All judgements of what is acceptable at any time as mathematics education research by the various gatekeepers are value judgements. What matters ethically is that those values are made explicit and are constantly under challenge and review by the community. This demand places great responsibility on journal editors, presidents of organizations such as the International Group for the Psychology of Mathematics Education, and the like, but also on all of us as reviewers, Ph.D. examiners, and so on. (pp. 451–452)

The goal of this section is to make the aims and values of *JUME* explicit. We value field disruptions and field connections as well as different ways of thinking, researching, and doing mathematics with and for students, teachers, and in-school and out-of-school spaces characterized as “urban.” Using the traditionally accepted methods and ways of producing knowledge most often continues to produce a status quo that is racist, sexist, and disproportionately disadvantages people with low-socioeconomic status. Our ways of researching in mathematics education must allow new ways to think and rethink mathematics and mathematics teaching and learning. It is past time for dismantling, reconfiguring, and rewriting mathematics education research if we as a community are really serious about creating and implementing new ways of being mathematical and new ways of mathematics teaching and learning that motivate means of inclusion rather than exclusion (see Skovsmose, 2009).

This call for change and reimagining is not new. In a 2010 *JUME* commentary, Danny Martin, Masie Gholson, and Jacqueline Leonard (2010) responded to two significant events that attempted to severely delimit the boundaries of the field of mathematics education and what counts as mathematics education research. The first delimiting event was the publication of M. Kathleen Heid’s March 2010 editorial, “Where’s the Math (in Mathematics Education Research)?,” in the *Journal for Research in Mathematics Education (JRME)*, which called on readers and potential authors to look for the mathematics in mathematics education research. Heid reminded readers that *JRME* publishes mathematics education research articles that “focus on critical features of mathematical understanding . . . in which mathematics is an essential component rather than being a backdrop for another area of inquiry” (p. 103). This editorial was a surveilling and disciplining move (see Foucault, 1977/1995) that regulated mathematics education manuscripts that prioritized equity, race, social constructs, and research methods outside the boundaries for publication in what is arguably the leading U.S. mathematics research journal. In essence, the demand for “critical features of mathematics” removed space for critical takes on mathematics and mathematics teaching and learning.

The second delimiting event occurred in that same year when the National Council of Teachers of Mathematics (NCTM) at its 2010 research conference sponsored a session entitled *Keeping the Mathematics in Mathematics Education*

*Research* (Teppo et al., 2004). D. B. Martin and colleagues (2010) argued that both events “marginalize[d] scholarship within particular areas of focus,” including sociopolitics, identity, power, and race (p. 13). They did not claim that mathematics is not important but rather called on the community to continue “efforts to add needed complexity to the understanding of learners, their social realities, and the forces affecting these realities” (p. 15). In particular, they pointed to the lack of progress in the area of equity despite rigorous empirical research over the past several years on and about minoritized and underserved populations. This lack of progress seemed to, in their words, “demand that we pursue all promising areas of inquiry informing us about how to help [minoritized and underserved populations] experience mathematics in ways that allow them to change the conditions of their lives... now is not the time for restricting the production of knowledge” (p. 17). This new *JUME* section aims to provide a different space for all promising and innovating theories, texts, and methodologies to be presented to and explored with the urban mathematics education audience, often times prior to any direct empirical work with the theory or method in mathematics education. This different space is for urban mathematics education researchers to ask, *What if?*

A focus on equity is not enough if systems and structures do not change. The NCTM has at times directed attention to issues of equity through policy, most recently with the *Principles to Actions: Ensuring Mathematical Success for All* (NCTM, 2014) document. Although it was a public proclamation of the organization’s commitment to equity, D. B. Martin in a 2015 *JUME* response commentary directed toward the larger mathematics education community called for a revolution of values, a new way of thinking, and a radical decolonizing of education for the collective Black:

The hard truth is that the outcomes and inequities lamented over in *Principles to Actions* and previous documents are precisely the outcomes that our educational system is designed to produce. Equity oriented slogans, statements about idealized outcomes, and tweaks to teaching or curricular practices within this system do not change this fact. (p. 21)

In a response to D. B. Martin’s commentary directed toward the NCTM community, the then NCTM president, Matt Larson (2016), acknowledged that “significant structural obstacles, including tracking and teacher assignments that disadvantage students who have been marginalized, remain unacceptable practices in too many schools” (para. 3). But as D. B. Martin pointed out, although it seems that the larger mathematics education community is beginning to acknowledge structures and obstacles that marginalize, the call for more equitable practices has been met with intense standardization in research and an increase in measurement and assessment of students and teachers (see Attick & Boyles, 2016; Biesta, 2016). These solutions

attend to a positivist, linear, cause-and-effect pathway for producing change in mathematics. But *what if we researched differently?*

I, similar to many others in the field (e.g., Brown & Walshaw, 2012; de Freitas & Walshaw, 2016; Ernest, 1999; Stinson & Walshaw, 2017), believe in the power of theory to shift the boundaries and borders of our field. de Freitas and Walshaw (2016) describe their approach to theory as impacting their thinking and meaning-making, explaining that “the act of defining or creating new concepts is precisely what theory has the potential to do. Thus, theory is a creative tool, an inventive approach to making meaning, as well as being an intervention into current cultural practices” (p. 4). Theory, then, is not merely something that a researcher thinks about prior to research or something that is applied to research data but rather an integral and inevitable component that directly and indirectly effects the possibilities and impossibilities of meaning-making through research. de Freitas and Walshaw do not privilege a particular theory as better, stating, “there is no perfect incontestable theory” (p. 2); rather, they advise that mathematics education researchers consider how theory functions on the possibilities and impossibilities for how research and mathematics can be thought.

In the *Field Disruptions and Field Connections* section of *JUME*, I echo calls in the mathematics education research community that a different space should be opened up (see de Freitas & Nolan, 2008) to consider research in mathematics education that crosses epistemological boundaries and works to open up spaces for mathematics educators, teachers, and students to think about themselves, mathematics, and schools differently. In other words, this new section will be a space with the aim of opening up “the fictions, fantasies, and plays of power inherent in mathematics education” (Walkerdine, 2004, p. viii). I also want to create space for theories, knowledges, and methods that have potential to shift our field but may not yet fit in the confines of more traditional mathematics education spaces. I welcome theoretical and methodological essays that connect underutilized theories or methods for the purpose of bringing potential change in urban mathematics education research. I welcome data excerpts and narratives that might not fit in empirical manuscripts yet matter for how they allow educational researchers to think and rethink mathematics, students, teachers, and in-school and out-of-school educational spaces.

To illustrate the potential for shifts in knowledge production as a result of thinking with underutilized theories and methodologies, in this introductory and invitational editorial, I offer some examples of poststructuralist studies in mathematics education that have shifted the way that mathematics education researchers take up the subject. Next, I turn to agential realism and inclusive realism as theories that are beginning to be taken up in mathematics education and may have potential in urban mathematics education. I then come back to calls by Gutiérrez (2017) and D. B. Martin (2015) to consider how possibilities for ethical action are structured by the ways we do and think research, thus offering new possibilities for ethical action by doing and thinking research in new or different ways. Finally, I open the invitation for

creative, radical, and innovative submissions to this new section of the *Journal of Urban Mathematics Education*.

### **Poststructuralism/Postmodernism and Mathematics Education**

Poststructural theories have *functioned* to allow us to think and research differently in mathematics education. Poststructuralism<sup>1</sup> has intersected with mathematics education for decades, and mathematics educators' use of poststructural theories have made it possible to consider how meaning and knowledge get made and whose "interests are privileged, marginalized, or silenced" (Stinson & Walshaw, 2017, p. 148). In general, poststructuralism refuses generalizations and questions the taken for granted assumptions of stable human subjects, the transparency of language and meaning, and the separation of human subjects as independent of discourses and social structures. Poststructural theories move from a conception of a student as an independent, rational, and stable subject to an evolving subject constituted by the discourses and disciplining practices of schools and societies. This move from an idea of identity as stable and fixed to the concept of subjectivity has changed the types of research questions that can be asked, allowing a different view of teachers and students as subjects that are constituted through interactions with the powerful discourses of school mathematics, education, and gender.

Valerie Walkerdine (1994) drew on poststructural and critical theory, particularly those of Homi Bhabha and Michel Foucault, to consider the production of the "appropriate" mathematical subject, which "regulates or polices itself" (p. 63). She traced the development of girls' mathematical subjectivity in classrooms to societal pressures and discourses about inherent sexual difference. Walkerdine argued,

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<sup>1</sup> I use the term poststructuralism here although the term postmodern is at times used interchangeably with poststructuralism and they connote similar ideas for many readers. Nonetheless, there are differences in the ways the terms are used. These differences are not easily marked, especially because poststructuralism works against fixed meanings and signifiers. Preissle (2006), in discussing the history of qualitative inquiry and paradigms, consistently refers to "poststructural and postmodern" (p. 689), never listing one without the other. Skovsmose (2012) uses the term postmodern "as a reference to a critique of Modernity" (p. 233) and its privileging of science, knowledge, progress, and education. Within the same article, Skovsmose categorizes Foucault as postmodern although Foucault is in other spaces labeled a poststructuralist. It should be noted that the majority of philosophers/thinkers who are labeled as poststructuralist did not self-identify in that way and in fact rejected the label. Peters and Burbules (2004) differentiate between postmodernism and poststructuralism, explaining that poststructuralism takes the place of the theoretical object structuralism, and postmodernism takes the place of the theoretical object modernism. Further, they advise, "when discussing poststructuralism it is important to recognize it as a movement (perhaps construed in the musical sense of the term)—as a complex skein that intertwines many different strands and also conceals important differences among the thinkers identified as poststructuralist" (Peters & Burbules, 2004, p. 30). This description, not definition, of poststructuralism is the one that I like to think with.

“theories of the development of reasoning when incorporated into education become ‘truths’ which actually serve to produce the desired kinds of subjects as normal and pathologizes differences” (p. 65). There were truths operating about girls who performed well in mathematics. Walkerdine found that girls were described as hard-working while boys, even ones who did not perform particularly well in school, were described as bright. Walkerdine pointed to the ways in which girls were positioned as compared to boys. She asked, “What then are the fears, phobias and fetishes in which the girls are inscribed, what are the stories about girls that have to be endlessly repeated as to make them true?” (p. 67). She found that underperforming boys were more likely to be positioned as having potential, while underperforming girls were taken up as lazy or incapable. She stated of her interactions in classrooms, “it was almost harder for a camel to go through the eye of a needle than for a girl to be called ‘bright’ (Walkerdine, 1989)” (Walkerdine, 1994, p. 67). Her attention to the practices of subject formation as an ongoing process outside the control of a single individual opened the doors to exploration of how the ways that teachers interact with students in classrooms promote particular kinds of mathematical subjectivities. She warned, “when we treat the world as abstract in this way we forget the practices which form us, the meanings in which we are produced, we forget history, power and oppression. This universalizing and abstracting approach forgets colonization, patriarchy” (p. 71). Walkerdine, drawing on Bhabha and Foucault’s writings, dismantled the idea that practices of schooling and the production of mathematical subjects are neutral and removed from intersecting issues of power, discourse, and gender. Her work has influenced the continued dismantling of taken-for-granted assumptions about gender and mathematics education (see Langer-Osuna, 2011; Leyva, 2016; Mendick, 2005; Walshaw, 2001). Ideally, the dismantling is followed by revisioning and reimagining, finding other ways to represent, other ways to tell stories, other ways of living and being.

In addition to gender, mathematics education researchers have taken up post-structuralist theories to consider how race interacts with mathematical identity. Stinson (2013) used poststructural theories to decenter prevailing narratives about the achievement of African American male students in comparison to their White counterparts. Stinson drew on Lyotard’s concept of the metanarrative to explain the White male math myth before drawing on Foucault to examine the discourses that four male African American students worked with and against to develop and perform robust mathematical identities as an act of subversive repetition (see Butler, 1990). In his study, poststructural theories allowed Stinson to not only think of identity and discursive practices in relation to mathematics differently but also to rethink the way that he conducted research. Stinson conceptualized a research method that he did with participants rather than to or on them. Importantly, Stinson acknowledged that he borrowed “theoretical perspectives from the disciplines of anthropology, cultural/social psychology and sociology” (p. 75). In addition, Stinson also reconfigured

Martin's (2000) framework for analyzing mathematics socialization and identity among African American students with poststructural theory to allow for a different kind of complex analysis of his participants, which acknowledged them as discursive subjects negotiating sociocultural discourses. This poststructural reconfiguration talked back to the generalizations being made about African American students' achievement as less than that of their White counterparts. Within a traditional research and theoretical paradigm, Stinson would have been disciplined to keep an objective distance from his participants and not provoke or disturb their conceptions of their identity. By drawing on different disciplines and reconfiguring established frameworks with other theories, Stinson created a new method of knowledge production with participants, ending his study with disruptive questions for the field.

### **Materialisms/New Materialisms and Mathematics Education**

Poststructuralism's "analytical edge" has already made particular cuts in mathematics education research. It has taken on the humanistic stable subject and the power of discursive formations; however, poststructuralism has been critiqued for its focus on the linguistic and lack of attention to the material. New materialism<sup>2</sup> was born out of a *lack* of attention to the material in poststructuralist and feminist writings. Educational research has entered the materialistic turn, where the question of what matter matters has been raised. New understandings and theorizations of quantum mechanics and environmental concerns have come together to produce theories that undo the nature–culture divide and decenter the human as privileged caretaker or dominator of the earth. New materialism has many spin offs and nomenclatures (speculative realism, object-oriented ontology). Dolphijn and van der Tuin (2012) explain:

New materialism is fascinated by affect, force and movement as it travels in all directions. It searches not for the objectivity of things in themselves but for an objectivity of actualization and realization... It is interested in speeds and slownesses, in how the event unfolds according to the in-between. (p. 113)

The key tenets of these new materialisms, similar to poststructuralism, function to trouble binaries and distinctive boundaries. In addition, new materialist theories take seriously what matter matters and how it comes to matter.

New materialisms and in particular Karen Barad's (2007) agential realism are beginning to be taken up by mathematics educators and are effecting/affecting the types of knowledge that are being produced through research (e.g., Ferrara & Ferrari, 2017; Roth, 2017; Wolfe, 2019). Barad's conception of onto-epistemology and the

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<sup>2</sup> I use this term here as Heckman uses it; however, I also want to honor the critique of the new in new materialism that Tuck and McKenzie (2014) put forward.

collapsing of knowing and being drew me to her as a theoretical guide for my dissertation research (Cannon, 2019) and how I continue to think through my ongoing research agenda. Given Gutiérrez's (2017) and D. B. Martin's (2015) demands, it is Barad's inclusion of ethics and her view on responsibility that could really *matter* for students and researchers in mathematics education. Her concept of intra-action demands a relational ethics; as being and knowing are entangled, so, too, is living well and in respons-ability to all others. Barad (2007) proposes,

*ethico-onto-epistem-ology*—an appreciation of the intertwining of ethics, knowing, and being—since each intra-action matters, since the possibilities for what the world may call out in the pause that precedes each breath before a moment comes into being and the world is remade again, because the becoming of the world is a deeply ethical matter. (p. 185)

In other words, educational researchers cannot separate ontologies, epistemologies, and ethics. They are entangled in the production of our worlds and our lives. Hillevi Lenz Taguchi (2009), a childhood educator and researcher who has been taking up new materialist theories and particularly Barad's concept of intra-action in her thinking of school-nature-childhood entanglement, asks, "what reality is invoked and materialized before us depends on what ontological and epistemological position we take?" (p. 160). The responsibility then of *ethico-onto-epistem-ological* choices that are *made* in intra-actions become paramount as educational researchers are reconfiguring the world as we move with it.

Elizabeth de Freitas and Nathalie Sinclair, scholars who bridge the fields of philosophy, mathematics, and feminism, have taken up Barad's agential realism, among other theories, in their ambitious text *Mathematics and the Body: Material Entanglements in the Classroom* (2014; see Cannon & Myers, 2016, for a review of the book and a brief introduction to inclusive materialism and minor mathematics that de Freitas and Sinclair offer). In their book, de Freitas and Sinclair note four crucial aspects of inclusive materialism:

1. It is not reductive, seeing all matter as the same; instead it privileges "difference and multiplicity" (p. 42).
2. The socio-political and the material are seen as "inextricably entangled" (p. 42), and in this viewing inequity issues in education can be addressed within a broader framework.
3. Affect, aesthetics, and nonsense are central, and rationality is not privileged.
4. Humanist notions and human agency are decentered. Agency, additionally, is distributed across the assemblage.



Drawing on these aspects, de Freitas & Sinclair put forth the concept of a *minor* mathematics that is “not the state-sanctioned discourse of school mathematics but that might be full of surprises, non-sense and paradox” (de Freitas & Sinclair, 2014, p. 226). They believe that a radical reconfiguration of school mathematics is necessary to engage students in more expansive ways. In their rethinking and re-rethinking of mathematics, they use inclusive materialism to question the ways we think about what counts as a mathematical concept and the ways in which curriculum is invented and organized.

de Freitas and Sinclair (2014) disrupt the traditional view that “learning is assumed to have a teleological trajectory toward fixed and immovable mathematical concepts. Concepts are said to emerge through activity, but there is no troubling of the specificity of the concepts. In other words, “the mathematical concepts (multiplication, cube, zero) are taken for granted, while students collaboratively move towards them” (p. 40). This traditional, taken for granted view is upturned in favor of sensational (not just sensible) learning that is inventive and intra-active. Instead of approaching the scenario of a child learning how to count on an iPad by trying to discern *the* effect of that technology on achievement, they viewed the child/iPad/finger/table/number/researcher as an entangled phenomenon. In this framework, educational researchers cannot separate out technology as a single variable that has a direct and measurable impact on the equally measurable learning of the child. The technology in intra-action with the child, mathematics, concepts, researcher, materials, and so on co-constitute each other through that intra-action. As with poststructural theories, de Freitas and Sinclair’s connections to agential realism and theories from within mathematics (e.g., Châtelet, 2000) and other fields allow a disruption in the field of mathematics education research. *What if urban mathematics education researchers thought with inclusive materialism?*

### **Ethico-onto-epistem-ology in Mathematics Education Research**

Inclusive materialism is not *the* theory. It is one theory that allows a different perspective on urban mathematics education. The ideas within it are not particularly new to mathematics education research. Gutiérrez’s (2017) *mathematx* was born out of field connections. She draws on examples from biology, ethnomathematics, post-colonial theory, aesthetics, and Indigenous knowledge. She acknowledges the material and the socio-political. D. B. Martin (2019) has intense concern for the material effects of knowledge-making practices as well. Let me be clear, the point that I am making is not that urban mathematics education research needs these particular theories (poststructuralism, agential realism, inclusive materialism) but rather that different theories open up different possibilities and impossibilities for urban mathematics education research. They simply help us to rethink our own re-rethinking yet again (see Foucault, 1969/1972). Thus, making a dedicated space for theory and innovation

in mathematics education research demonstrates the value of theory and the need to extend connections to other fields.

The choices we make—the theories and methods we use—as researchers create the field of urban mathematics education. We become educational researchers *with* the field as we *create* the field (Cannon, 2020; Mazzei, 2013). Educational researchers are engaged in boundary-making practices that categorize and classify: “Cuts are enacted not by willful individuals but by the larger material arrangements of which ‘we’ are a ‘part’” (Barad, 2007, p. 178). These cuts have material effects. For example, in Gutiérrez’s (2008) work on the fetishizing of the “achievement gap,” she points to cuts that are made around Black and Brown students that produce them as deficient and lacking. This gap is not in Black and Brown students; rather, the gap is produced in and through the gap gazing research and reified each time another researcher cites it. Cathy O’Neil (2016) argues that the way that statistics and mathematical models are used have material effects on people’s lives and discriminatively negative effects on the poor. She shows how mathematical models are “not only deeply entangled in the world’s problems but also fueling many of them” (p. 2), and the models used extensively today “tend to punish the poor” (p. 8) and perpetuate cycles of poverty, causing “widespread damage that all too often passes for inevitability” (p. 200). Far from being an abstract and static discipline that it is sometimes assumed to be, mathematics is intimately entangled in our lives as it continues to serve as a proxy for truth and privilege. The way that data/mathematical models are used and the way that we do research matters. The models that we set up—that is, the apparatus within which we are entangled (Barad, 2007)—determine reality (O’Neil, 2016).

In each intra-action, then, researchers determine reality and reconfigure the world. These determinations cannot be made ahead of time and cannot be rule-bound or universalized. As Lenz Taguchi (2009) explains, “such universal ethics will not be understood as universally ethical by all, and second, such questions exclude the possibilities of asking ourselves how *can* or *might* we all live in different and other ways?” (p. 178). This question brings us back around again to Gutiérrez’s (2017) call for different knowledges to be privileged in mathematics education research, D. B. Martin’s (2015) call for a rethinking of equity for the collective Black, and de Freitas and Sinclair’s (2014) call for radical reconfiguration of school mathematics. As educational researchers, how do we work to continually pose questions to ourselves and each other that take into consideration how we might all live differently? *What if schools were structured differently? What systems might be dismantled and radically reimaged?*

## Ethics and Living Differently

Theory is ever present in mathematics education research. We are always already operating with theory whether we are explicit in naming it or not. In mathematics education research, which theories are allowed to count (Martin et al., 2010), how we count them (Martin & Lynch, 2009), and who disciplines the field is driven by the political, social, and material. Stinson and Walshaw (2017) asked the following as they ended their chapter in the compendium:

[Will] the battles over the nature of knowledge, truth, reality, reason, power, science, evidence, and so forth...continue indefinitely. Or might the battles wane, as mathematics education researchers, funding agencies, and policy makers come to a different understanding of “what works”? How do we, the community of mathematics education researchers, learn to evaluate science across paradigms? How do we learn to use science that produces different knowledge differently? (p. 147)

In drawing on different theories and methodologies, I hope that mathematics education researchers not only produce different knowledge differently but also give rise to more ethical and just ways of living and being in the world. As Hultman and Lenz Taguchi (2010) explain,

our engagement with the world, as researchers has *real* consequences. These are consequences that might evoke new realities and new ways of being, which in feminist and political perspective is of vast importance. What we do as researchers *intervenes* with the world and creates new possibilities but also evokes responsibilities. (p. 540)

Hostetler (2005), when considering the question of good educational research, states, “To each of those scenarios, we can and must say, ‘Okay, but how does that serve people’s well-being?’ And to answer that question, we have to venture wide-eyed and strenuously into the ‘bewildering complexities’ of human good” (p. 19). Read alongside Barad and Gutiérrez, Hostetler’s question increases in complexity with the understanding that we “learn from other-than-persons, which, in turn, may change our relationships with them” (Gutiérrez, 2017, p. 2). Being human now requires a more than human awareness to create radically reconfigured realities. Research over the last few decades has shown that reconfiguration is possible, and we may have to unlearn some of what we *know* to achieve the radical reconfigurations. We may need to ask, *What if?*

## The Call

In this introductory and invitational editorial, I have traced how two particular theories—poststructuralism and new materialism—have brought about disruptions in the field of mathematics education and allowed for different, more complex

conceptions of mathematical subjects and the questioning of mathematics itself. These serve as illustrations of what this new *JUME* section might hold. Too often theories and methods such as these, which might be impactful in disrupting and dismantling mathematics education as usual, are relegated to special issues or do not make it to press at all. If mathematics education researchers wish to understand differently, they must research differently.

D. B. Martin (2013) has argued that mathematics teaching and learning are racialized projects and that the mathematics education enterprise in general is “an instantiation of White institutional space” (p. 328). In relying on traditional theories and methodologies, mainstream mathematics education researchers too often have minimized race or erased race altogether in their analyses (Martin, 2009). Historical tracings of mathematics education show that there is deep and embedded structural racism in mathematics education (e.g., Berry, 2018; Martin, 2019). The particular theories that I present here do not adequately or directly address race and racism. They are not enough to change urban mathematics education. We need more and different ways to reconfigure mathematics education. Mathematics education researchers can look to other disciplinary fields that are taking up other theories, concepts, and methodologies, such as Black feminism (Evans-Winters, 2019), abolitionist teaching (Love, 2019), anti-racist education (Evans-Winters & Hines, 2019), posthumanism (Taylor & Bayley, 2019), and others. I am confident that there are mathematics education researchers already thinking and re-thinking with these and other new and newly considered theories and methodologies that extend and connect mathematics and mathematics teaching and learning to other disciplinary fields. I invite potential authors to bring your connections and disruptions here.

In light of the aforementioned shifts made possible through new or newly considered theories and methodologies, the section aims to make a dedicated space for the introduction or mapping of theories and methods that have the potential to matter for urban mathematics education research. While the *Journal for Research in Mathematics Education* has been making moves through its editorial pages to “firm up” what counts as mathematics education research (e.g. Cai et al., 2019), it is especially important that the *Journal of Urban Mathematics Education* make moves through this section and throughout its pages to re-affirm its commitment to different ways of doing science in mathematics education. Doing so is not a criticism of traditional ways of doing science per se but rather an acknowledgement of a widening of the boundaries for mathematics education researchers to radically reconfigure the field with and for students, teachers, and humanity more broadly.

In this section, I seek texts that call on the *JUME* audience to question ideas and practices that are taken for granted (*Field Disruptions*) or to consider the potential of a theory used in other fields (*Field Connections*). In other words, manuscripts submitted for consideration might question the taken-for-granted discourses and discursive practices that prevail in mathematics and mathematics teaching and learning

or introduce readers to a theory and/or methodology that is not prevalent in mathematics education research but has potential to shift the field (see Davis & Jett's, 2019, opening chapter in *Critical Race Theory in Mathematics Education*). Authors should carefully outline the theory and/or methodology and make distinct and direct connections to issues in urban mathematics education. I also welcome alternative research texts—for example, autoethnography, blackout poetry, found poetry, ethnodrama, fictions, and so on—that are most often excluded from traditional mathematics education research outlets and venues. Of course, there are other forums for this type of work, but by creating this section specifically in a mathematics education journal, I hope to bring these different possibilities for conducting and presenting science into the field of mathematics education more fully to see how they might help us think differently. I cannot predict nor promise exactly what this section might become; it will depend largely on the disruptions and connections brought by the *JUME* community. The priorities for acceptance are that the theories/methodologies/alternative texts are seriously considered and are offered in ways that are informative to the broader mathematics education audience and that the authors communicate the relationship to urban education either directly through the work or in an accompanying cover letter. I encourage potential authors to reach out to me with ideas or suggestions for this section, as I hope it will reflect a wide and inclusive set of ethico-onto-epistemologies.

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