The Problem We All Live With

The Knowability of Black Girls, the Importance of Context, and Mathematical Chauvinism

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April 27, 2016
The studies I have described here make sense only in the context of mathematics. They focus on critical features of mathematical understanding: the nature of quantitative relationships, the meaning of symbolic representations, conceptions underlying advanced mathematical concepts, and the meaning of arithmetical expressions. Or they focus on mathematics that has been difficult for students to learn: solving word problems or proving generalizations. JRME publishes research in which mathematics is an essential component rather than being a backdrop for another area of inquiry. I encourage readers to continue to examine articles in JRME with the “Where’s the math?” question in mind.

—Heid (2010)

Editorial: Where’s the Math in (Math Education Research)
Context

Knowability of Black Girls

The Study

Mathematical Chauvinism
CONTEXT
If schools are for all children to flourish, then the individual child can be our unit of concern, but not our unit of analysis or reorganization. Why should kids be the focus of change when it is the rest of us—the culture that is acquiring them—that arranges their trouble?

—McDermott & Varenne (2005)
Reconstructing Culture in Educational Research
To say that Black women, in an U.S. context, were almost ‘unknown’ was not to indicate that there were no stereotypical images of Black women in existence. Williams is well aware of negative portrayals of Black women as she writes numerous articles defending Black women in the face of transient, public opinions. However, what provoked Black women’s general ‘unknowability’ was a paucity of resources within “fixed public opinion” that one could draw upon when interpreting Black women (Williams 1900/2007, 54).

—Dotson (2013)
Knowing in Space
black patriarchy

white feminism
the study
Figure 1- Lamaresha throwing the peace sign.
Lamaresha defines the classroom dynamics and...

its effects on classroom learning.
The Mean Girls’ social network gets complicated as competence mediates positions within the community of practice.

Maisie: Okay, so who are the kids that you play with the most?

Jenique: Mia, Heaven, and Lanae. And John. But I cannot play with Mia anymore because my score is a 66. And Mika –she on red. Her school real low—she and Heaven’s score. I gotta stop playing with them two, but not Mia. I can talk to her but not in school [but] afterschool. I’m on yellow.
How did a third grade, Black girls’ social network influence patterns of participation within the mathematics classroom community?
Figure 2-Conceptual map of the mediation of social and mathematical figured worlds.
Community of Practice ↔ Social Network

Figure 3-Example of relational ties within a community of practice
Methods

• Context
  • West side of Chicago
  • June Elementary School
    • Demographics: 99.4% Black/AA; 96.8% low-income
    • Strong Black cultural ethos
    • Rich-history in school integration
    • More recently enmeshed in school closure debate
• Participants
  • 1 Black/AA teacher of record (Ms. Jakki Robinson)
  • 13 Black/AA boys
  • 13 Black/AA girls
    • 6 girls interviewed as focal students (of varying competence)
# The Girls in the Gradebook

<table>
<thead>
<tr>
<th>Name</th>
<th>Race</th>
<th>Age in Yrs (Birth Month)</th>
<th>Math Grades and Test Scores</th>
<th>Attendance and Discipline Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mia</td>
<td>Black/AA</td>
<td>9 (Sept)</td>
<td>Final Math Grade: 91</td>
<td>Test Score (Percentile Rank Nat'l): 56% (BOY), 65% (MOY), 84% (EOY)</td>
</tr>
<tr>
<td>Jenique</td>
<td>Black/AA</td>
<td>9 (Apr)</td>
<td>88</td>
<td>24% (BOY), 32% (MOY), 53% (EOY)</td>
</tr>
<tr>
<td>Brittany</td>
<td>Black/AA</td>
<td>9 (Jul)</td>
<td>84</td>
<td>24% (BOY), 53% (MOY), 59% (EOY)</td>
</tr>
<tr>
<td>Shawna</td>
<td>Black/AA</td>
<td>9 (Mar)</td>
<td>84</td>
<td>47% (BOY), 29% (MOY), --</td>
</tr>
<tr>
<td>Lamaresha</td>
<td>Black/AA</td>
<td>9 (Feb)</td>
<td>82</td>
<td>38% (BOY), 29% (MOY), 35% (EOY)</td>
</tr>
<tr>
<td>Heaven</td>
<td>Black/AA</td>
<td>9 (Mar)</td>
<td>85</td>
<td>29% (BOY), 38% (MOY), 38% (EOY)</td>
</tr>
<tr>
<td>Taylor</td>
<td>Black/AA</td>
<td>9 (Unknown)</td>
<td>65</td>
<td>&lt;1% (BOY), 6% (MOY), &lt;1% (EOY)</td>
</tr>
<tr>
<td>Lanae</td>
<td>Black/AA</td>
<td>9 (Unknown)</td>
<td>71</td>
<td>17% (BOY), 10% (MOY), 27% (EOY)</td>
</tr>
<tr>
<td>Joi</td>
<td>Black/AA</td>
<td>9 (Unknown)</td>
<td>81</td>
<td>32% (BOY), 38% (MOY), 30% (EOY)</td>
</tr>
<tr>
<td>Aliyah</td>
<td>Black/AA</td>
<td>9 (Unknown)</td>
<td>68</td>
<td>3% (BOY), 6% (MOY), 3% (EOY)</td>
</tr>
</tbody>
</table>

Table 1-Demographic, achievement, attendance, and school discipline data.
The Girls in the Classroom

<table>
<thead>
<tr>
<th>Name</th>
<th>Physical</th>
<th>Background</th>
<th>Gender</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mia the Model Student</td>
<td>Light brown-skinned; skinny &amp; tall; long braided plaits</td>
<td>Lives with grandmother and younger brother</td>
<td>Hyper-girlish</td>
<td>&quot;A&quot; student; regular attendance; no discipline issues; enjoys school; considers herself to be good at school</td>
</tr>
<tr>
<td>Jenique the Enforcer</td>
<td>Medium-brown skinned; chubby &amp; average height; long braided extensions or plaits</td>
<td>Lives with father and grandmother</td>
<td>Girlish</td>
<td>&quot;A/B&quot; student; regular attendance; one major discipline issue; ambivalent about school; doesn't consider herself to be one of the better students</td>
</tr>
<tr>
<td>Brittany the Helper</td>
<td>Dark-brown skinned; average-stature &amp; tall; long braided plaits</td>
<td>Lives with mother, stepfather, and siblings</td>
<td>Hyper-girlish</td>
<td>&quot;B&quot; student; regular attendance; no discipline problems; loves school; considers herself to be an improved student</td>
</tr>
<tr>
<td>Shawna the Bully</td>
<td>Medium-brown skinned; chubby &amp; tall; short cornrow braids</td>
<td>Lives with mother and older sisters</td>
<td>Tomboyish</td>
<td>&quot;A/B&quot; student; minor attendance issues; major discipline issues; ambivalent about school; does not consider herself to be a good student</td>
</tr>
<tr>
<td>Lamaresha the Enthusiast</td>
<td>Dark-brown skinned; skinny &amp; short semi-straightened hair worn in pony tails</td>
<td>Lives with aunt, mother, cousins, and siblings</td>
<td>Tomboyish</td>
<td>&quot;A/B&quot; student; major attendance issues; no discipline issues; loves school; considers herself to be a good student</td>
</tr>
<tr>
<td>Heaven the Fallen Party Girl</td>
<td>Medium-brown skinned; skinny &amp; tall; short cornrows braids or afro-puffs</td>
<td>Lives with mother, father, and sisters</td>
<td>Girlish</td>
<td>&quot;A/B&quot; student; major attendance issues; no major discipline issues; enjoys school; considers herself to be a perfect student</td>
</tr>
</tbody>
</table>

Table 2- Summary of focal girls.
## Data Collection

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom observation</td>
<td>33 (54 recordings; each 60 to 90 minutes)</td>
<td>Every class visit throughout the year</td>
</tr>
<tr>
<td>(Video recordings with a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>stationary camera and moving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>camera)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field notes</td>
<td>35 (5-80 sheet steno pads)</td>
<td>Every class visit throughout the year</td>
</tr>
<tr>
<td>Small group work (audio</td>
<td>80 (each 30 to 90 minutes)</td>
<td>During group work throughout the year</td>
</tr>
<tr>
<td>recordings)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student work</td>
<td>~500 pages</td>
<td>Every class visit throughout the year</td>
</tr>
<tr>
<td>Artifacts</td>
<td>~100 articles, including photographs,</td>
<td>Occasionally</td>
</tr>
<tr>
<td></td>
<td>student</td>
<td></td>
</tr>
<tr>
<td></td>
<td>drawings, or miscellaneous documents</td>
<td></td>
</tr>
<tr>
<td>Achievement data</td>
<td>3 district-benchmark tests, state-</td>
<td>Three sessions in fall, winter, and spring</td>
</tr>
<tr>
<td></td>
<td>standardized annual scores, &amp; classroom grades</td>
<td></td>
</tr>
<tr>
<td>Attendance data</td>
<td>Totals for the year</td>
<td>Once at end of the year</td>
</tr>
<tr>
<td>Student interviews of focal</td>
<td>30 interviews (3 interviews for each focal student)</td>
<td>Three sessions in late summer, winter, and spring.</td>
</tr>
<tr>
<td>students (video recordings)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher post-reflection</td>
<td>18 interviews</td>
<td>Occasionally (mostly in the fall)</td>
</tr>
<tr>
<td>interviews (audio recordings)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community artifacts</td>
<td>~50 articles, including letters, fliers, field notes &amp; audio recording from community meeting etc.</td>
<td>Occasionally</td>
</tr>
</tbody>
</table>

Table 3- Data collected in 3rd grade classroom.
Analytical Approach

Figure 4-A modified integrated framework for studying "learning mathematics while a Black girl" (cf. Martin, 2012).
In this formulation, then, I want to engage all of these theories [and methods] as 
**visitors**. This comes from the recognition that going all the way home with many 
of these theoretical positions—feminism, post-modernism, nationalism, 
Afrocentrism, Marxism, etc.—means taking a route cluttered with skeletons, 
enslavements, new dominations, unresolved tensions and contradictions. 
**Following many of the theory/theorists “all the way home” inevitably places me in the “homes” of people where I, as a Black woman, will have to function either as maid or exotic, silenced courtesan, but definitely not as a theoretical equal.** Going all the way home with them means being installed in a distant place from my communities. I believe that the “visitor theory” approach offers a 
technique of interaction similar to the intention of “multiple articulations.” It 
becomes a kind of critical relationality in which various theoretical positions are 
interrogated for their specific applicability to Black women [and girls’] 
experiences and textualities and negotiated within a particular inquiry with a 
**necessary eclecticism**. It is a particular way of reading or writing the Black/female 
experience which plays on a variety of possible configurations. It is at once a 
process and a pattern of articulations. (p. 46)

—Davies (1994)

“Going a piece of the way”
Key Findings (in Mathematics Learning & Participation)

- The role of social groups in mathematics learning and participation
- The power of mathematical competence in social negotiation
- The power of social status in mathematics participation
- The periodicity of the girls’ social and mathematical worlds
- The definition of school mathematics as the confluence of social and mathematical worlds
Figure 5- Between the fall and winter, the girls social network undergoes a major shift.
<table>
<thead>
<tr>
<th>Node</th>
<th>Degree 1</th>
<th>Degree 2</th>
<th>Betwn 1</th>
<th>Betwn 2</th>
<th>Close 1</th>
<th>Close 2</th>
<th>Eigen 1</th>
<th>Eigen 2</th>
<th>Sub-graph 1</th>
<th>Sub-graph 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mia</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>12</td>
<td>.083</td>
<td>0.111</td>
<td>.174</td>
<td>0.172</td>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
</tr>
<tr>
<td>Jenique</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>1.33</td>
<td>.067</td>
<td>0.091</td>
<td>.148</td>
<td>0.168</td>
<td><img src="image3.png" alt="Graph" /></td>
<td><img src="image4.png" alt="Graph" /></td>
</tr>
<tr>
<td>Heaven</td>
<td>5</td>
<td>2</td>
<td>10.5</td>
<td>0</td>
<td>.091</td>
<td>0.059</td>
<td>.190</td>
<td>0.040</td>
<td><img src="image5.png" alt="Graph" /></td>
<td><img src="image6.png" alt="Graph" /></td>
</tr>
<tr>
<td>Brittany</td>
<td>2</td>
<td>4</td>
<td>1.5</td>
<td>1.33</td>
<td>.063</td>
<td>0.091</td>
<td>.072</td>
<td>0.168</td>
<td><img src="image7.png" alt="Graph" /></td>
<td><img src="image8.png" alt="Graph" /></td>
</tr>
<tr>
<td>Shawna</td>
<td>2</td>
<td>4</td>
<td>.5</td>
<td>1.33</td>
<td>.053</td>
<td>0.091</td>
<td>.066</td>
<td>0.168</td>
<td><img src="image9.png" alt="Graph" /></td>
<td><img src="image10.png" alt="Graph" /></td>
</tr>
<tr>
<td>Lamaresh</td>
<td>4</td>
<td>3</td>
<td>13</td>
<td>2.5</td>
<td>.077</td>
<td>0.083</td>
<td>.121</td>
<td>0.075</td>
<td><img src="image11.png" alt="Graph" /></td>
<td><img src="image12.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

Table 4-Node level centrality measures for BOY and MOY.
Figure 6-Phrases in field notes marking contentious or isolating social events over the year.
Figure 7-Phases in the social network and individual trajectories over the year.
Figure 8-Trajectories and modes of social status in the girls network.
The Portraits

**Heaven**: A Portrait of Campaigning on an Outbound Trajectory
**Shawna**: A Portrait of Campaigning on an Inbound Trajectory
**Brittany & Heaven**: A Portrait of Free-riding versus Campaigning
**Mia**: A Portrait of Resisting in High Status
**Lamaresha**: A Portrait of Resisting in Low Status
**Jenique**: A Portrait of Enforcing in High Status
Figure 9-Timeline of the girls’ portraits.
Figure 10-Heaven at work (alone).
In the Fall
Maisie: So other than Mia, what other kids do you like to play with?
Heaven: **Jenny, Mika, Tonya, and Denisha.**
Maisie: And why do you like hanging out with those people including Tia?
Heaven: Because they all funny and every time they get into an argument with someone, they always come to me for advice and I give them advice. **We just make each other happy. We don’t like anyone sad.**

(Interview 09/26)

Social Trajectory

In the Winter
Resigned Member of Low Status Peer Group

In the Spring
Avowed Isolationist

In the Fall
Maisie: So other than Mia, what other kids do you like to play with?
Heaven: **Jenny, Mika, Tonya, and Denisha.**
Maisie: And why do you like hanging out with those people including Tia?
Heaven: Because they all funny and every time they get into an argument with someone, they always come to me for advice and I give them advice. **We just make each other happy. We don’t like anyone sad.**

(Interview 09/26)
Social Trajectory

In the Fall
Enthusiastic Member of High Status Group

In the Spring
Avowed Isolationist

In the Winter
Heaven: ...So her [Mia] and Jenny are best friends now. I want to be her friend now, but I don’t think she wants to be anyone friend. Everybody want to be her friend, but really we still friends, it’s just that she can’t do what she want to do in front of Jenny because Jenny got ack // she act like she the boss and she tell people they can’t do that and so everybody didn’t want to be Jenny friend because she kept doing that. So that’s when she got friends with Jenny and I am friends with Lamaresha and Joi.
(Interview 03/01)
Social Trajectory

**In the Fall**

Enthusiastic member of high status group

**In the Winter**

Resigned member of low status group

**In the Spring**

Maisie: Tell me how do you feel about making friends next year? Are you excited about it? Are you worried about it? Do you not really care? How do you feel?

Heaven: I don't care, because I like working alone.

Maisie: You like working alone. Did you always like working alone or did you start to like working alone this year?

Heaven: I always--from Kindergarten.

Maisie: Always--from Kindergarten/

Heaven: //and all the way up.

(Interview 06/11)
In the Fall
Maisie: Very good. So do you consider yourself one of the better math students?
Heaven: Yeah me and Mia and Jamal and Derrick
Maisie: And why do you say that? Why do you think = =
Heaven: Because sometimes Ms. Robinson let me grade the math papers and then I look at mine and I know I had mine all correct because Ms. Robertson said get a calculator and make sure they are all correct, so I know mine was all correct. Mia’s was, Derrick and Jamal’s was, but the other ones-they get all confused in their heads. They got the answers right-they just put it on different ones.

(Interview 09/26)

In the Spring
Positive but fragile identity

In the Winter
Positive but fragile identity
Math Trajectory

In the Fall
Positive but fragile identity

In the Spring
Positive but fragile identity

In the Winter
Maisie: So is there something that you found really interesting in math this year?
Heaven: Decimals I found that interesting because it’s like when every time people teach me something, I catch on right to it. Everything Ms. Robinson teaches me, I help people and I get it right.

(Interview 03/01)
## Math Trajectory

### In the Fall

**Positive but fragile identity**

### In the Winter

**Positive but fragile identity**

### In the Spring

**Maisie:** So I want you to think about some of your classmates who are good at math. So who are the people in your class that are good at math?

**Heaven:** *Jamal and me, and Mia.*

**Maisie:** And Mia. And do you think that people who are good at math does it come naturally to them or do you think that they have to study and practice.

**Heaven:** I think it comes to Jamal and then to Mia, she gotta study.

**Maisie:** What about you do you have to study or do you have it come naturally?

**Heaven:** It just come to me.

(Interview 06/11)
Math Recognition as a Trajectory

**In the Fall**
Maisie: Very good. So think about the students that are good, who are the other students that are good in mathematics including yourself. Who are some other students?
Mia: **Me, Jenny, Lanae, Heaven, especially Heaven. She loves math.** Yeah and let’s say Jamal and Derrick. Let’s see Joi.
Maisie: Anybody else?
Mia: I’m thinking. That’s it.

(Interview 09/26)

**In the Winter**
Maisie: So I want you to think of people who do math. What kind of people do math outside of school? Who are people who do math?
Mia: **My friend.**
Maisie: Who’s that?
Mia: Like Alana.

(Interview 03/01)

**In the Spring**
Maisie: Let me ask you this. Do you think some of your classmates do well? Okay, so who are the people who are good at math//
Mia: //Jamal//
Maisie: //in your class. Is he the only one?
Mia: Yea.
Maisie: What about you?
Mia: [ Shrugs shoulders. ]

(Interview 06/11)
Figure 11-Heaven on the margins.

Figure 12- Heaven campaigns.
Jenique: 66 takeaway 10 equals 56. 66 takeaway 56 equal 10.

(Heaven walks up to the Jenique, Mia, and Lanae’s table.)

Lanae: Heaven, what happened?
Jenique: Take the work and go. Adios.
Heaven: Somebody put pencil shavings on your name tag.
Jenique: Who?
Heaven: Lanae.
Jenique: You did.
Lanae: Yea.
Heaven: Girl, that’s huh...
Jenique: 368
Heaven: That’s not 368, girl. It’s 568. Look, see you add
Jenique: It’s 568 ‘cuz you add. I was just playin. It’s 468 then you plus another hundred and that’s 568, because you still got the 68.
Heaven: I know. But it’s the same thing.

(Transcript 11/13)
Lanae: (faintly)...you talking about my mama and her roommate and that’s why I was like—you’s talking about my mama?

Heaven: I wasn’t talking about your mama/

Jenique: //Yea, I feel bad, because that ain’t funny because my whole cousin. I’m not going//

Heaven: Why don’t y’all talk about somebody else mama. My mama almost died. My granddaddy. My mama daddy died. Talkin about someone family that’s low.

Jenique: I can’t call you no more because—you know why—my granny said what’s going on at school and if I lie to her and Mia told and have to remember and told her all those stories. So my granny said that I have to stop talking to her for a while. That was like a week ago and she was like now you can talk to her if you want, because I am not gone stop you from talking to your friends. But I was like it’s okay.

Heaven: Talk to who?

Jenique: You. My granny be like snap-snap.

Heaven: I really didn’t call you anyway cause I know your ah//my mom said don’t call cause your grandma probably mad. I told her you don’t call no more so mama said if she don’t call you just don’t call her back. If she call you then just hurry up and answer it. My mama said even if she gone then go ahead and answer it. She said answer that phone if you call. I got a new house phone.

Jenique: I don’t have your number.

Heaven: I gotta give you the number. I’m gonna call your house phone.

Lanae: I can’t get on my phone no more.

(Ms. Robinson’s voice rises above the class, “Okay, 310. Can everybody give me five?”)

(Transcript 11/13)
Figure 13-Shawna on the margins.
Jenique: Okay, let’s talk about our work now for the camera//for the thingie.
Shawna: Okay, y’all. I’m on page 27. And this says 3, 9, 12. Three plus 9 equals 12, nine plus 3 equals 12.
Chorus: 12 takeaway 9 equals//
Other Girls: 3
Lanae: 3
Chorus: 12 takeway 3 equals 9.
Shawna: 7, 8, 15
Shawna: 7 + 8 equals 15
Chorus: 8 + 7 equals 15
Shawna: 15 takeaway 7 equals 8//
Other Girls: //7equals 8
Shawna: 15 takeaway 8 equals 7. Fill//find the missing numbers in each fact family. 7 plus 5 =12. 5+7 =12; 12 takeaway 5 equals 7; 12 takeaway 7 equals 5. [pause 3 seconds] 6 + 7 = 13, 7+6 = 13. 13 – 7 = 6; 13 – 6 = 7. Write a reled [sic] subtract fact for each addition problem. 8 +4 = 12 and so they said a released [sic] subtract for each addition.
(Lanae and Jenique are whispering.)
Shawna: 8 + 9 = 18; 8 + 9 = 17. Write an addition fact for each addition family.
Jenique: I ain’t gone say nothing cuz I know she ain’t talkin to me.
Shawna: 14 takeaway 5 equal 9
(Transcript 11/14)
Shawna: Time to go home y'all. Jenique, where you live at?
Jenique: Huh?
Shawna: Where you live at?
Jenique: I live down that block s’kraight ahead. You gotta go s’kraight ahead across that big street then go//
Shawna: Down the street. I gotta go straight?
Jenique: I don't live down that block. Don’t you know when I always walk this way.
Shawna: Down Oliver (street name).
Jenique: Yea. I live all the way down there.
Shawna: By the pond?
Jenique: I'll show you after school.
Shawna: Okayyy.
Jenique: What’s fourteen takeaway five?

(Transcript 11/14)
Limitations of the Study

- Learning and competence relies on teacher grades and verbal assessment, as well as standardized test scores.
- The social network relies on a subset of the girls in the class.
Smart Girls, Black Girls, Mean Girls, and Bullies: At the Intersection of Identities and the Mediating Role of Young Girls’ Social Network in Mathematical Communities of Practice

MAISIE GHOLSON AND DANNY B. MARTIN, UNIVERSITY OF ILLINOIS AT CHICAGO

INTRODUCTION

Smart girls and bullies (often co-present) are two well-
known African American girls on the third grade. They live in a predominantly black community on the west side of Chicago. The girls attend their neighborhood elementary school, where the student population is predominantly black (38.1 %). This includes pre-kindergarten to eighth grade. The girls were mem-
bers of Ms. Robinson’s classroom 113, the context for this study. Over the course of an academic year, Mason and his exper-
enced third-grade mathematicians in various very different ways, despite being the two highest achieving girls in the class.

Although Ms. Robinson taught girls as providing a nurturing and caring learning environment for her students, issues of gender and gender roles, social, physical, and social have emerged in focus that are typical of the students in her classrooms.

Children are non-sexually involved as learners who hold peer status. Yet, these peer groups who were present to accomplish some and share have been fire hazards. Students between 7 and 9, the age-
group in the classroom, are forming and maintaining relationships, sharing and interpreting knowledge and ideas. For some participants, emphasis on how similar they are in their own personal understandings and experiences of social, physical, and social have emerged in focus that are typical of the students in her classrooms.

DEBATING WITH BLACK GIRLS

The study of young girls’ and their social networks was the ques-
tion. (Wren, 2004) Through a close reading of the young girl’s self-reflection, in light of these meanings, we ask: How do we engage in the discourse and develop content on the nature of being young girls? And what do these debates mean for how young girls can make meaning of mathematics (2001)?

We use these questions as a starting point to elaborate on the nature of social, physical, and social have emerged in focus that are typical of the students in her classrooms. Students “mature” and “distilled” over time. We take a year of time, particularly with a “natural” or more well, time to the sociological construction of childhood—“believing the African-American girl’s stories and actions to be the basis of what we call ‘black girls’ (Wren, 2004).” Our construction of childhood also

Figure 14: Journal of Education article published in 2014.
mathematical chauvinism
What happens if transcripts that I shared today were coded solely for relevant mathematical talk?
Thank you so much.

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