Identities of Race, Class, and Gender inside and outside the Math Classroom: A Girls’ Math Club as a Hybrid Possibility

by Stephanie Jones

Only truthfulness to the diversity of women’s experience and to the problems of thinking and talking about these things will bring real change.

—Jane Miller, Seductions: Studies in Reading and Culture (1990)

Patti is an African American girl in third grade. She lives in a midwestern city and attends a newly opened charter school serving students in kindergarten through twelfth grade. If you took a look inside Patti’s combination second-third-grade classroom, you would notice that she is the largest student in the room. Patti has black wavy hair, uses a tone of voice that is typically louder than that of her two teachers (though similar to her mother’s), and stylish dresses in clothing that does not fit stereotypical images of femininity. Against the odds, Patti is an individual who has progressed significantly in strengthening her identity within the realm of mathematics. Much of this progress has been made through the relationship she has developed with me, an action researcher, within the confines of an after-school math club for girls. This certainly has been productive for Patti, and it would seem to be a “success story” for me—but it is not.

Within Patti’s classroom, issues of race, class, gender, and power are constantly at play, often limiting the particular identities these students can take on. When students don’t fit the norms set by the larger society, they often don’t fit into the narrowly defined positive identities available in school settings; or if they choose to take on a positive identity within the school setting, they often feel they must reject core aspects of their cultural identities (Boaler and Greeno 2000, 187; R. Gutierrez forthcoming; 5. Hicks 2001, 224, 2002, 132; hooks 2000, 153).

This paper will explore three specific social spaces where Patti is engaged with different and sometimes competing discourses. Patti spends a significant amount of time each day in her classroom; thus it is crucial to look closely at the discourse of the classroom and her two teachers, both of whom are white, middle-class females. Within this space we find a narrowly defined notion of how a successful girl looks and acts. The second space to be explored is the space Patti shares with her mother, Jane, whom Patti calls maca. Within the space of their mother-daughter relations, Patti and Jane interact comfortably; their informal talk and body language reflect identities performed by Jane, a black single mother who serves as a custodian within the school. Yet this seemingly narrow, informal discourse hints that for Patti there may be identities available that differ from Jane’s. The third space explored within this paper is that of the girls’ math club, of which I was the facilitator. I aimed to create a space where hybrid identities were promoted and valued. I also was working with Patti from my own subject position, that of a white woman with cultural ties to rural Appalachia. My childhood was spent in urban and rural communities, where my class status shifted between working-class and working poor. Not only am I drawn in my action research to girls living in conditions similar to those of my childhood, but my personal history influences the readings of the practices I have been studying.

Influential Work:
Identities and language practices

The process of constructing and reconstructing identities is central to learning math. Chris Woodcock (1997, 212) argues that subjectivities (identities) are socially produced through language practices imbedded with power relations. The phrase language practices is assumed, in this paper, to include verbal and nonverbal interactions with, about, and around individuals, as well as the language practices that are played out intertextually (Wertsch 1991, 275) in describing a Discourse (with a capital D) as an “identity kit” that includes one’s walk, talk, body language, and even one’s dress, hairstyle, and so on. James Gee extends the notion of identity being constructed within language practices. He builds on his work, exploring identity in a way that reflects language practices, social interactions, and physical acts “so as to take up a particular social role that others will recognize” (Gee 1986, 27).

Recent writing has focused on identity located within the realm of mathematics. In Boaler and James Greeno, like Rochelle Gutierrez, focus on secondary students and their willingness to take on a positive mathematical identity and in their attendance challenges. Taking on this identity would mean considering oneself a math person and would entail the students’ aligning themselves with the perceived practices of others who perform this identity as well. Boaler and Greeno discuss how students’ decisions to accept or reject a mathematical identity is based not on cognitive abilities but on the “kinds of person they wanted to be” (2000, 187). Students in traditional math classrooms often perceive mathematics as the opposite of what is creative, verbal, and even humane. Boaler and Greeno conclude that certain pedagogical practices (such as engaging in mathematical discussions versus being passive receivers of knowledge) promise individual agency in “author(ing) identities as learners” (196). Gutierrez also examines practices in the math classroom, especially those that reflect culturally relevant pedagogy. A salient theme in her paper is that of positive, productive relationships between students and teacher (forthcoming, 50).

Race, class, gender, and math

Black women have historically occupied the lowest social and occupational statuses in the United States. According to bell hooks (1984, 16), the unusual positionality of the black woman makes her a person who experiences racial, sexist, and class oppression while she has not working-class black girls and their lived experiences as a foundation to construct mathematical identities. Much of the research that has been conducted on “black” female students is analyzed from a theoretical framework that views them as lacking. Focusing on the lives of black females while using a deficit model allows, and even encourages, the notion that it is the teachers’ job to fix what is wrong with “those students.”

220 ♦ A Girl’s Math Club as a Hybrid Possibility

Feminist Teacher Volume 14, Issue 3 ♦ 221
On the other hand, researchers have studied and theorized about white girls, seemingly as the "norm," without problematizing their class-specific location. White working-class girls have gained some attention, notably from Valerie Walkerdine. Walkerdine’s studies of these girls and their experiences and achievements in mathematics reveal that the comments by the girls’ mathematics teachers divided closely down lines of class and gender (1998, 169). Teachers often used poor family background as an excuse for their students’ poor achievement in math. They often privileged girls who would become a sort of assistant teacher or helper in the classroom, but seldom spoke to these students as having any sort of “natural ability” (161). In contrast, Walkerdine found that boys often gained positions of power within the classroom when they demonstrated “that” is mathematics, frequently indicated by the breaking of the mathematical rules to find alternative routes to a solution. Girls were given such positions the teacher only when they followed directions and procedures, worked hard, and did not challenge mathematical correctness.

Pam, the focus of this paper, embodies both the blackness discussed by bell hooks and the working-class status discussed by Walkerdine. She thus faces specific hurdles to overcome as she engages with mathematics in a classroom that values white, middle-class language practices and identities.

Hybrid Identities

The deficit view of cultural and class difference has been criticized by many in the field, as exemplified in the works of Lita Delphi (1995); Margaret Finders (1997); James Gee (1996); Kris Gutierrez, Patricia Tummers, Lorys, Hector Alvarez, and Ming Chiu (1999); Shirley Heath (1983); Carol Lee (1993); and Valerie Walkerdine (1998). Viewing young learners as having deficits is overcome. It is problematic for many reasons; for one, these “deficits” are often deeply rooted cultural or familial aspects of identity that have been constructed through social practices within the home and community. Students coming to school with nonmainstream backgrounds are frequently placed in a position of having to choose between core aspects of these identities and academic achievement (Heath 1983, 348; hooks 1994, 3). Recent feminist writers have highlighted the positive aspects of taking on multiple identities, including identities that are formed and re-formed on the margins of societal norms. This repositioning of the individual as a “hybrid” self has been demonstrated by Kris Gutierrez et al. (1999) and others in the context of classrooms where hybrid language practices and identities are privileged (Hooks 2002, 153).

Liberty School

Situated as the river in an urban environment, the Southside community is historically working-class and working poor. Many residents of Southside have cultural ties to rural Appalachia. The racial makeup of the community is approximately 50 percent African American and 50 percent white. Though racially diverse, the community finds solidity in the lack of money and material goods (B-Census 2002, 16). The children within this community have long been underserved by the city public schools; they have been bused out of their neighborhood into numerous schools throughout the system. Southside has a history of school dropouts, and residents currently consider the dropout rate in the community to be near 100 percent. Children as young as twelve years of age stop attending school regularly.

Within Liberty School, a charter school designed to bring the school and community closer together, neighborhood residents work as custodians, cafeteria workers, and instructional assistants. The teachers and principal live outside the community and drive in every day to work. Ms. Smith and Ms. Peterson, discussed below, are white, middle-class first-year teachers. Neither of them identify personally with an urban, working-class, or Appalachian way of life.

Pam’s mom, Jane, is a daytime custodian at the school. She and Pam live in an apartment building next to the school, facing the river. They walk to school and home every day, a trip of about one minute each way.

My Journey

When the Liberty School opened its doors in the fall of 2000, I began observing and participating in classrooms of all grade levels three days a week, keeping fieldnotes and collecting documents distributed in the school. My focus was broad, as I was attempting to understand the developing patterns of practice within the school as a whole. I became an advocate for students and teachers, assisting and monitoring when teachers came to me for help, and eventually forming a group of teachers around critical dialogues about race, class, and gender relations within classrooms.

In January I began an after-school math club for girls, narrating my action research focus to the girls who joined the club. These young girls were struggling with identity issues in mathematics. They were in classrooms that didn’t incorporate mathematics in a way that connected to their lives; therefore, many of them had little access to available in mathematics. They viewed math as a memorization of facts, toward which they felt disconnected and passive. The after-school club was our way I thought I could help them strengthen their identities in mathematics. The members ranged in number from seven to fifteen, almost all of whom during our first meeting claimed to hate math.

Our meetings were held one day a week for at least seventy-five minutes, but no more than two hours. During this time I taped-recorded some of our circle dialogues on topics important to the girls (e.g., money, boys, clothing, teachers), and I wrote fieldnotes as soon as possible afterward, reflecting on the entire time we spent together. In addition to this weekly meeting, I observed or participated in the girls’ math class at least once a week, and also observed or participated in the girls’ classrooms outside of math class at least once a week. I interviewed each girl and math teacher at least once, using follow-up interviews to address emerging questions or to triangulate data gathered through fieldnotes and others’ interviews. All interviews were taped-recorded and transcribed. These data, collected over a period of four months, have been analyzed for emerging themes (Miles and Huberman 1994, 246; Patton 1990, 384).

This paper presents themes and details that triangulate across fieldnotes, math club fieldnotes, teacher interviews, and student interviews. Representing in writing the negotiation of identities for these girls is somewhat problematic, for those identities are in continuous flux, fluidly morphing from day to day, even minute to minute. Yet attempting to represent the complexity of identity formation for these young girls in the realm of mathematics is extremely important. This process entails not a simple "taking on" or "rejecting" of a specific type of identity but a negotiation that occurs within specific relations defined by social spaces and their participants.
Being a Girl in the First Space: The Classroom

On a sunny day in March, Pati's math group is sitting on a rug talking about multiplication.

The group has been focusing on multiplication for a week or two now, and Ms. Smith is introducing the terms product and factors. "What is the product of the factors three and five?"

The students repeat this question. Ms. Smith responds, "You got my tricky language. So, the product is the sum of the numbers five and five and five?" The students repeat this again and one student is called on to offer the "sum." Pati is physically disengaged from this activity, as she is playing with her best friend's hair. She is engaged in the practice, however, as she is repeating the words with the other students; she is also demonstrating the product and sum that Ms. Smith asked for. Her activity goes on as Ms. Jane (Pati's mom) walks quietly through the door and over to Pati. She whispers in Pati's ear to meet with Ms. Chepeta. After the meeting she repeats that she's not going to be home and she doesn't want Pati to be there alone. Jane is there to attend a meeting at school and will come get Pati when it is over.

I watched this scene with envy. I wish that my mother had had the opportunity to have so involved a role in my education. I notice the comfort and ease with which Pati and her mama communicate with one another. I'm touched by the interaction, and don't perceive it as disruptive. Both of them whisper quietly and the interaction is over within seconds. From the perspective of Ms. Smith, however, it is more than a momentary disruption.

Ms. Smith reacts to Jane's presence in the classroom at the same time that I do, but quite differently. She avoidance eye contact with Jane, becomes rigid, and rolls her eyes slightly. As soon as Jane leaves the room Ms. Smith says to Pati, "Pati, you know what? Come and sit right here! I've had enough..." Her tone of voice is soft and threatening. Pati, however, quietly stands up, walks over to the table, and sits down with her multiplication test. "You ain't supposed to start," Pati tells a boy sitting nearby. Ms. Smith hears her and stands over to the table, exclaiming, "Pati, I've gone out of my way to be nice to you today..."

Tremendous struggles for power are occurring between Pati's teachers and her mama.

Ms. Peterson once complained to me about Pati's mama. "She told Pati to listen to her and not to us." This statement made at a time when Pati was having behavior problems and needed to drink a lot of water, may also reveal some of Jane's frustrations. Jane wanted Pati to keep a bottle of water with her and be in the classroom at all times and her teachers told Pati she could not. Ms. Peterson and Ms. Smith seem to feel it is very important for them to maintain power over Pati, as they both see the teachers and teachers are supposed to be in control. When Jane enters the classroom space as Pati's mama, Ms. Peterson and Ms. Smith react to ensure that Pati knows that they are the ones with authority.

On another day, I'm sitting by Ms. Peterson's and Ms. Smith's desks and they are telling me about their frustrations with Pati and her mama. These include the close relationship the two have and their mother-daughter interactions at school. "There's another custodian with a child in this classroom and you would never even know they were related," Ms. Peterson tells me. The custodian are referring to a white woman who has chosen to distance herself from the rest of the school. Ms. Smith, in contrast, is a black single parent who has chosen to be more involved with her daughter at school (and outside of school, according to Pati). Ms. Peterson expresses her feelings: "She's a custodian and she doesn't even sweep our floor."

This interaction and the upcoming meeting are having at Jane's request. At first I don't see the connection, but then it becomes more clear.

Ms. Peterson and Ms. Smith share white, middle-class upbringings; both were taught to desire and respect professional, white-collar careers and those who held professional positions. Jane is a working-class black woman who speaks an African American English vernacular, as described by Carol Lee and James Gee (Gee 1996, 155), and interacts in a manner that is historically tied to African American culture. Jane employs louder volume of voice than a typical white midwestern middle-class woman, and she often uses body language as she communicates. Jane does not perform middle-class discourses of femininity. She keeps her hair cut short, wears clothing acceptable for her job—which tends to be long work pants and T-shirts—and doesn't wear makeup or carry a purse. She might even be mistaken for a man from a distance. As a black, working-class single mother who does not fit into a middle-class female identity, Jane is specifically positioned within the context of school. Jane's words are not taken seriously; in fact, her presence is often ignored completely by Pati's teachers. Pati also has a specific position within the classroom. She is the daughter of a black woman who works as a school custodian. Pati, like many other black working-class poor students, is not expected to excel in school. Her physical size, Jesús, and assertiveness (against those who are teacher's assistants or helpers in class) locks her classroom position in place as she reflects the race-, class-, and gender-specific identities of her mother (Walker/A3uche 1998, 49).

In Bone Black [1996, 91], bell hooks discusses the white, middle-class patriarchal stance of beauty that so many black girls and women feel they must follow. Pati isn't being raised to meet this standard of beauty, even though she has been through stages of "trying on" more stereotypical discourses of femininity. Pati's mother has a strong and threatening voice with a turtleneck, braids or ponytails all over her head, and gym shoes. However, her teachers held perceptions of Pati based on a "girl role"—a gendered identity in which buggy, rolled up overalls simply have no place. Ms. Peterson tells me in an interview:

She's just so big and aggressive. She's so loud... She's like a little Jane. But maybe Tiffany [Pati's best friend] is nothing off her. The other day she came in with a backpack purse on and told her, "Pati, I love your backpack purse!" (emphasis mine)

Pati gets much positive attention from her teachers when she is trying on this more stereotypical identity. They say, "We love your earrings" or "You look so cute today" when she's showing a new "girl" outfit or earrings that are most admired by an older woman. Pati is reaching out for their attention, too. She knows that Ms. Smith and Pati hold particular beliefs about how girls should look and act.

These discourses in the classroom make identities available for Pati in mathematics. A positive identity for Pati in her math classroom is narrowly defined and includes looking and acting like a "girl." As a former math educator, I saw Pati as very strong in mathematics, particularly in the area of spatial relations. She was one of the fastest to understand and demonstrate the concept quickly memorizing the facts required by Ms. Smith. When I asked Ms. Smith and Ms. Peterson who they would consider to be strong math students they listed student after student, nonden whom struck me as stronger than Pati. Finally, almost as an afterthought, Ms. Smith said, "Well, actually, Pati is really
In an interview, Patti discussed how the language practices of her teachers positioned her as a girl learning math—in particular, using tall in the classroom to embarrass (as perceived by Patti):

**Patti:** My friends are Tiffany, Jorel, Sara, Jennifer, Shaneen... Tonya Smith [her teacher], Ms. Peterson, and Lacey [whispers] sometimes, Coby sometimes... and, Lucy, Sophie, Jones, S. Jones (laughs) Tell me about Ms. Smith.

**Patti:** She's my math teacher, and, first of all we have group... Ms. Peterson takes the second grade and Ms. Smith takes third grade, and we're on test, in mathematics, we're on time, oh, multiplication. And we're already in our fives! We've gone seven more tests to go and we'll be done with the whole math table.

**Me:** Wow.

**Patti:** That's seven more Wednesdays to go for the tests. What do we do in math... she's always like, teach us, and sometimes when she's teaching us, she's saying stuff in front of the whole class. It's really embarrassing. Like, whoever, like, like, what they mess up, um, and they aren't 'nursin' up, they're not thinking... they ain't. And make she's she don't have to say it in front of the whole class, brings it up. That's why we get angry, and we get ow, and stuff. Yeah. And I don't like that cause she's embarrassing people. That's embarrassing, they don't want everybody to know what they did, can't keep it to yourself?

And like she sayin' sometimes. I'm not gonna say no names, but she still wanna do it sometimes (emphasis). (emphasis Patti)!

Patti has described Ms. Smith as a "friend," but ends by discussing a trait of Ms. Smith's that she perceives as negative. Patti is experiencing some conflict in her perceptions of her teacher. I believe Patti lists Ms. Smith as a friend because she truly desires the friendship and approval of her teachers. Yet Patti also perceives how Ms. Smith uses language to position students as less powerful. Relations within the classroom are clear: the teachers hold the power. In recognizing this, a student like Patti can draw conclusions about the types of identities they can take on in the classroom.

Being a Girl in the Second Space: Mother-Daughter Relations

Patti's mother is a checkout clerk in the school and has become an unofficial leader among the community workers. Giving my childhood history within working-class culture, I find it common to talk with June and have experienced great rapport with her since the beginning of the school year. I often speak to her in the hallways as I hurry from one place to another. Until Patti included herself in the after-school "Girls' Math Club," I rarely spoke to June about Patti; we simply joked and laughed a lot. During an interview with Patti I asked her about her mom:

**Me:** Talk about your mom.

**Patti:** My mom.

**Me:** Yeah.

**Patti:** Mom takes us up tall and becomes totally very fast! My mama, she really help me a lot, and my mama is the best mama I ever could have. Cuz she help me with my math, she help me with my homework, and I ain't got nothing to say about my mama, cuz she help me with everything, she do her best to take care of me, so.

Patti's defensive response surprised me, yet led me to reconsider: my approach in talking with her. Patti seemed to assume that my wanting to talk about her math class needed to be talked negatively about her. I want to know what sorts of things Patti and June do together, so I ask Patti respond:

**Patti:** Like, she teach me stuff, and when I don't get it she say, "Get the dictionary," she don't ask me the word, she make me look up the word.

**Me:** What do you and your mom do?

**Patti:** Watch TV, play together, (whispers) anyway, we usually wash clothes, and we're trying to do math, and sometimes we make cakes together. And I always make my noodles, I always make the noodles. I always make the noodles on the stove. Cuz I know how to cook. I always listen to music.

**Me:** Like what?

**Patti:** Like the blues, turn... you know what turn is like the CDs and tapes, and that's all. I like the blues of CD, like back in the old days, I know that song and everybody be like, "She don't know that song" and my mama be like, "You know it!" and cuz they thinkin' it's from the old days and I don't know the song. But I know that song. I wanna talk about a tape. (emphasis Patti)!

**Me:** Okay.

**Patti:** Uh-huh. It's um, like, um, it's called um, Tina Turner.

Patti perceives June spent with her mama as having multiple strands. Music, particularly music that is traditionally thought to be "black," is valued within her mother's discourse, and Patti has seemingly assumed this identity of a music enthusiast as well. June proudly boasts to her friends that Patti knows a song from the old days, and Patti takes on that pride.

While June and Patti vocal black, working-class identities, June makes it clear that she values school and schoolwork. June tells me she walks down the hallway, "I told Patti, math is where it's at." At times June has also expressed concern over Patti's inability to fit into a more acceptable identity of a "girl." In another hallway conversation June notes. "My mama think Patti needs to lose weight, go on a diet. She's afraid kids will make fun of her and Won't play with her..." June go on to discuss the girls in her high school that looked "bitch" and were made fun of by the other students. June states, however, that those girls were really the most friendly and the most accepting of her throughout school. June seems to understand the consequences of being "big," "bitch," and black in school, but doesn't quite know how to protect Patti from the challenges she will face.

Patti's family experience with different presentations of herself as a girl as the seasons passed from fall to winter. For several weeks Patti proudly wore long braided extensions which were usually pulled back to the left and clasped together at the nape of her neck in a colorful ponytail holder. While she was dressing her long braids, she would attempt to imitate her typical blue jean overalls and some "other" clothing, such as off-white stretch pants and a matching jacket. Over time she lost the braids but began occasionally to wear fancy imitation pearl earrings, as well as other accessories. Through making available clothing, accessories, and hairstyles that do not resemble her own, June is allowing Patti to take on identities that don't "look" like her mama's without
class as they revealed the source of their clothing—hand-me-downs and articles from Goodwill, the Salvation Army, and the Free Store (a store for families living in poverty that sells free food, toys, clothing, etc.). These conversations led to mathematical concepts as we talked about economy and economics. But Patti and I do not engage in our discussions, and her silence created a special challenge for me. I was fixed with not knowing how to position Patti as powerful as long as she was disregarded and clubless open up in the space of our math club.

Following our usual ritual of opening behind two desks with cursive geometric shapes and designs. The object of the game is to find the "set," which is not a "match." To become a set, students must find three cards that have three different colors, three different shapes, three different shadings, and three different numbers of objects. Most of the girls (Patti's club found the game to be challenging. Patti, however, worked side to side over the decks filled with cards and yelled, "Set!" She quickly picked up three different cards, asked me to confirm the set, and added them to her growing pile. I watched in amazement at her speed and her physical engagement in the activity. When I walked over to her she immediately sat down. I feared that she was concerned that I was coming over to discipline her in some way, perhaps to ask her to be seated instead of standing. I had to struggle to disabuse her of this idea right away. I called the group's attention to Patti's incredible work with the card game, thenly positioning her as powerful within our space while valuing her desire or need to engage her by this activity.

Over time this strategy was successful. Girls began to play "Set" with Patti and depended on her for help in locating sets, while showing increasingly less inclination to avoid her in social situations. The discourse of the math club was beginning to value Patti for who she was. Patti's gender identity that she practiced at home was welcome in the space of the math club and was used to strengthen her identity in mathematics, often elevating her status among peers as well.

At this time, Patti's club began to engage in "chess" games and "board games," which they saw as a way to further discuss the power of positioning and the ways in which girls could engage in mathematics. Patti, however, was not as engaged in these activities as she had been in previous activities. She seemed to be more focused on her own work and less interested in the group discussions. However, Patti's club continued to engage in these activities, often using them as a way to further discuss the power of positioning and the ways in which girls could engage in mathematics. Patti, however, was not as interested in these activities as she had been in previous activities. She seemed to be more focused on her own work and less interested in the group discussions. However, Patti's club continued to engage in these activities, often using them as a way to further discuss the power of positioning and the ways in which girls could engage in mathematics. Patti, however, was not as interested in these activities as she had been in previous activities. She seemed to be more focused on her own work and less interested in the group discussions. However, Patti's club continued to engage in these activities, often using them as a way to further discuss the power of positioning and the ways in which girls could engage in mathematics.
"Yes! We have a connection!" but I quietly answer, "Okay, I'll love to do that Patty, but I also have to talk with the other girls about who they're doing, alright?" She reluctantly agrees, and stays focused on her project the entire time... even when I'm not sitting next to her. Patty ended up with seven pages of graph paper filled with the company's logo shapes of photos that she has discovered. They are all labeled with a mathematical term for the shape, and the pages are scattered around her in no particular order. I suggest to Patty that we hang up her work in our room. She grabbed the stapler right away and got on top of a desk and began hanging them all up around one of our bulletin boards.

Patty lets down her guard on that day. She stopped outside the typical scene of choosing safe activities (e.g., "Set") connected only to Tiffany. She was beginning to feel more comfortable with me, and—far more important—she was feeling more comfortable taking on a positive identity as a mathematician. She proudly displayed her work in our space without any hesitation, and her work was openly valued by the others in our club. This day also marked an important turn in Patty's relationship with Tiffany. She no longer chose an activity or a seat to remain close to Tiffany; instead she chose activities that were interesting to her and began to work with others in our club. Patty learned that she can hold on to her identity as Tiffany's "best friend" while also embracing a separate, more academic identity within the math club. This project led to the next exciting project in the math club was that Patty began to value the embeddedness of mathematics in her everyday life. The following story demonstrates Patty's willingness to take on this positive, powerful identity.

It was an unusually hot April day and all the windows were open in Patty's classroom; the beat of fans created a background noise that eventually faded into imperceptibility. Patty was telling me about her trip during spring break to a local hotel, where her main was to work. They spent the weekend swimming in the indoor pool. Patty began a story about her and her friends' getting stuck in the elevator, how scared they were, and how the firefighters had to come get them through the top of the elevator. I was listening intently, drawn in by the dramatic innovations in her voice. Patty sat up suddenly and said, "You know this is all connected to math, too." Patty then took a deep breath and began to explore the mathematical connections within her elevator story. She discussed the measurement of time, the measurement of the height of the elevator itself and the height of each story in the building, and the measurement of weight. She talked about the geometric shapes that come together to form an elevator, the buttons on the elevator, and even the equipment used by the firefighters to rescue her from the elevator. Toward the end of our conversation, Patty declared, "I guess everything really is connected to math."

From the context of the math club discussions, Patty knew that I valued math and the embeddedness of mathematics in our everyday lives. She felt comfortable enacting an identity similar to mine because she had begun to trust my values, me, and within this academic realm. She knew that I valued her and positioned her in powerful ways. Taking on an academic identity in mathematics no longer entailed a high risk; it had been made available through both Patty's math's encouragement and through the social relations in the space of the math club.

During an interview, Patty confirmed my belief that she had taken on a positive, powerful identity in mathematics as she declared, "I love math." so: What's your favorite part of school?

NOTES:

(notes are omitted)

**My favorite part of school?**

*Yeah.*

*Math. Math time.*

*Math?*

*Especially on Wednesdays. I like math club.*

*Do you? Why?*

*Because, because, math is really fun. I love math.*

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Nothing happens in the "real" world unless it first happens in the images in our heads.

—Gloria Anzaldúa, "La Conscienza de la Mentira: Towards a New Consciousness" (1987)

Success story: Not for me.

At the beginning of this paper I noted that Patty made significant, productive changes in her mathematical identity, but that I didn't feel this case study was a success story for me as a researcher. Throughout the year I facilitated critical discussions around race, class, and gender with small groups of teachers in the school. Though Ms. Smith and Mr. Peterson often contributed to these discussions with insightful comments, they were not making a connection to their classroom practices in mathematics—and specifically to their interactions with Patty and her mother, June.

At the end of the year, academic requirements forced me to leave Liberty School and the Girls' Math Club behind. When I began, I had high hopes of helping to establish some common language practices that would critique societal norms and the discourses around race, class, and gender and academic achievement. When I left, I felt as if I was abandoning Patty and other girls in the math club who were not succeeding in their regular math classrooms. They were thrust back into classrooms where dominant discourses of stereo type femininity and white, middle-class academic achievement constituted narrowly defined notions of who could succeed in mathematics. It gave hope that simply being involved with the Girls' Math Club has opened up the eyes of Patty and the other girls to the possibilities of constructing hybrid identities that don't leave behind the identities formed within family and community. I hope that this experience will carry them through their academic careers while they wait for their regular classroom teachers to recognize and change practices that (unintentionally) tend to be racist, classist, and sexist and thus perpetuate inequities in our society.

Success story? Perhaps for Patty... for now.

This paper has explored Patty's engagement within these social spaces. The regular math classrooms nurtured narrowly defined notions of female identities for Patty that were impossible for her to take on successfully, thus limiting her overall success in mathematics. Patty's systemic identities that were race-, class-, and gender-specific, but June did not allow such specificity to limit Patty's potential. June consistently encouraged Patty to take on a more academic (i.e., white, middle-class) identity to succeed in school, particularly in...
mathematics. This discourse promoted the possibility of hybrid identities for Patti. The discourse of the Girls' Math Club engaged Patti in a way that opened up new possibilities for her within the academic realities of mathematics, valuing both her class- and culture-specific girl was outside of school and using that identity and her everyday knowledge to promote a positive identity in math.

The girls' math club created a "Third Space" (see K. Gutierrez et al. 1999) where Patti and all the girls and their family practices were valued, and various positions were privileged at different times throughout our meetings, field trips, and other outings together. It promoted a "hybrid" space, where the unofficial and the official realities of social practice came together. This space was one in which each girl, including Patti, was encouraged to be her own person and to develop as a mathematician within her particular location of knowing and understanding. Patti employed her body to help her engage meaningfully with math, and use consistently located mathematical concepts within the context of her lived experiences.

Call for future work

My class- and culture-specific history has influenced both my readings of the practices of children, teachers, and schools and my practice as an action researcher. Perhaps because of this history I am, in some ways, better able to understand the practices of Patti, her mother, and others like them within this school context. I'm not arguing that teachers must have histories that are aligned in race, gender, or class-specific ways with their students; I believe that teachers can come together through critical dialogues around issues of race, class, gender, and power in the math classroom and can make progress in their use of more culturally responsive practices. This can be difficult work, however, as we all must question our beliefs and values that are embedded in hegemonic relations within our society. Regardless of the challenges, the work is critical and must be pursued if we are to change the inequities in our schools and society.

The power relations within language practices construct identities available for girls to take on in mathematics; this is where girls will first imagine the identities they hope to enact. We must make sure that schools provide spaces, preferably the regular meeting rooms of students and teachers, where hybrid identities can be created and re-created. These institutional spaces must value the home and community practices of the students and allow those practices to more fully develop academic understandings and identities. Mathematics has traditionally been known as a gendered domain and an apolitical subject. But is it possible to imagine mathematics as a hybrid subject that draws on personal relationships of race, class, and gender and that emphasizes the embeddedness of mathematics in everyday lives. We must imagine a time and place where this is the norm in schooling practices—where working-class and poor girls of all races and ethnicities can envision themselves taking on strong, positive identities as young mathematicians without sacrificing core aspects of their whole selves.

References


