TEACHER POSITIONING AND AGENCY TO ACT: TALKING ABOUT "LOW-LEVEL" STUDENTS

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In this paper, we share our dilemma of disrupting teachers' deficit frames of students. The data comes from a professional development program with nine secondary mathematics teachers. In particular, we attended to when teachers talk about "low-level" students. Drawing on Harré and van Langenhove's (1999) idea of positioning, we examined teachers' self positioning and their associated storylines. By noticing and attending to positionings and storylines in professional development, we suggest, mathematics teacher educators can consider how to disrupt these deficit frames by recasting positionings and storylines.

Keywords: Classroom Discourse; Equity and Diversity; Teacher Education-Inservice/Professional Development

Introduction

An enduring dilemma in our work with practicing teachers surfaced recently as we piloted a set of professional development materials we have been designing: how might we disrupt mathematics teachers' talk about students that positions students in deficit frames? This kind of talk often appears in phrases like "my low-level kids." Both anecdotal evidence and published research suggests that we are not alone in grappling with this dilemma. Mathematics education researchers have addressed this problem by focusing on teachers' beliefs (e.g., Fennema, Peterson, Carpenter, & Lubenski, 1990).

Yet, as Parks (2010) pointed out, locating the problem as being about teachers' beliefs is limited and constructs the problem as being something that happens only in people's heads. She proposed, instead, that we understand this deficit view as socially constructed across many different communities and artifacts used in mathematics education. Using a rhetorical perspective, Parks explored the enduring metaphors that occurred across many mathematics education domains: prospective teacher coursework, field experiences, textbooks from methods courses and mathematics classrooms, standards, and university researchers' writings about mathematics students. She argued that the pervasive metaphor of learning mathematics as travelling along a narrow path limits who might be seen as 'successful,' as well as imposes rank ordering of students in many different ways. See the deficit view as socially constructed in this way, she contended, allows us to tackle the problem systemically rather than focusing only on individual teachers and their beliefs.

Recently, other mathematics education researchers have turned to social perspectives to better understand this dilemma. Horn (2007), for example, drew on a sociocultural framework for learning by examining the conceptual resources teachers brought to their work in trying to employ equity-oriented reforms. She took the stance that the broader idea of *conceptions* should be seen as "distributed across individuals and settings" (p. 38) as she explored talk in teacher

communities. She examined the "ways in which conceptions of students, subject, and teaching are embedded in teachers' daily work, particularly as they encounter problems of practice and work to solve these problems in consultation with colleagues" (p. 38). This article begins with a description of teachers' talk about students as being "fast," "slow" or "lazy."

We agree with Horn and Parks that views of students are socially constructed through discourse. We use positioning theory (Harré & van Langenhove, 1999), a slightly different social perspective, to examine teacher talk that positioned students as having low status during a year-long study group on classroom discourse. We seek to better understand the relationships between the ways in which teachers' talk positioned students (third order positioning) and the reciprocal ways in which teachers also positioned themselves (first order positioning). We argue that the teachers' first order positionings and their framings (storylines) matter because they relate how teachers might take action in their contexts.

Theoretical Background: Positioning Theory

We use Harré and van Langenhove's (1999) *positioning theory* as a lens to understand teacher talk in study group setting. Influenced by feminist studies (e.g., Hollway, 1984), positioning theory opposes the static notion of *role* (Harré & Slocum, 2003). Roles are what have been established through consistent interactions that constrain role-holders' moves in the future and are fairly static. Positions, however, are fluid, negotiated in moment-to-moment interactions, and can be accepted or refused. The process of positioning and the acceptance or refusal of a positioning can be explained by attending to *first, second*, and *third* order positioning. The order is determined by who is positioning whom in what context. We draw on an example of small group interaction in a sixth grade science classroom from Ritchie (2002) to further explain orders of positioning:

Nerida: We're smart, aren't we?
Rupert: No, we're [Marcello and I] smart. You aren't the smart ones, we are.
Alicia: We're not doing batteries are we?
Rupert: No, we're doing solar panels [*Marcello and Rupert laugh*].
Nerida: [*Laughing*] This is funny.
Alicia: No it's not.

In this example, Rupert positioned Nerida and Alicia as disengaged or inattentive by pointing out that they were not working on the right science topic. By doing so, he reciprocally positioned Marcello and himself as smart and rejected Nerida's proposed positioning. This direct positioning of oneself and others in an interaction is *first* order positioning. Alicia, however, rejected this positioning by disagreeing with Nerida. She overtly said that what Rupert was doing was not funny. The challenge from Alicia indicated that Rupert's first order positioning was questionable and required negotiation, shifting to a *second* order positioning (i.e., intentional questioning or negotiating a first order positioning). *Third* order positioning happens when positioning occurs outside the original conversation. Rupert might tell this story to a friend after the science lesson that positions Alicia as a lazy and difficult girl. This is a type of third order positioning of Alicia because the conversation is now outside of the original dialogue. By recounting the conversation that happened outside of the immediate space and time, the participants of the initial conversation become subject of third order positioning.

Ritchie later reported on further observations of Nerida and Alicia, who claimed that Rupert positioned them in particular ways because they were *female* group members, locating at least some of the positionings within the storyline of gender—in this case, representative of a larger cultural story that women are less capable than men to do science. *Storyline* is this larger

contextual background of positioning; it "draws on knowledge of cultural structures and the positions that are recognisably allocated to people within those structures" (Ritchie, 2002, p. 27). The storylines that frame positionings restrict, constrain, and shape the moves and positionings that might happen in an interaction. In any given situation, multiple storylines may be at play and different participants may locate positionings in different storylines. Rupert, for example, could have been playing a 'good student' storyline, within which he positioned himself as being compliant and Nerida and Alicia as not being compliant.

Although positioning focuses on immediate micro-level interactions, it relates to how a person's identity develops because identity relates to how one talks about and sees oneself but also how others talk about and see him/her (Esmonde, 2009). By attending to coherency of positioning in a context over time, Anderson (2009) suggested that each person becomes a *kind* of person. The evolution of *kind* requires cultural resources or discursive structures, value of a position in the local context, and what a *kind* of person is allowed to do or is expected to do. Thus, positionings over time can impact one's identity development. In our work as teacher educators, we have noticed that teachers' repeated positionings of students sometimes constructs *kinds* of students that position students in deficit ways. Although students are not always privy to these third order positionings, these positionings and their accompanying storylines can constrain the ways in which teachers work with students.

Here we examine mathematics teachers' third order positionings of students during professional development sessions. In particular, we focus on interactions where they have said things like "my low-tracked student" or "my at-risk group." We do this in order to better understand the reciprocal first order positionings of the teachers that relate to these third order positionings of students. It is also important to identify the framing storylines of these positionings because, as we stated earlier, storylines can restrict, constrain and shape people's action, either implicitly or explicitly. We seek to better understand these kinds of comments in order to address these issues in our future work as teacher educators. In particular, we investigate two research questions:

1) What first order teacher positionings seem to surface reflexively with the mathematics teachers' third order positionings of students as "low-level"?

2) What storylines seem to be in play when the teachers position students as "low-level" and how might they restrict, constrain, or shape teacher action?

Method

Setting, Participants, and Data

Observation data came from the 11 three-hour professional development (PD) sessions in which we piloting a set of case-based materials for secondary mathematics teachers. An overarching goal of these materials is to raise teachers' awareness of the role of discourse in teaching and learning mathematics. In the materials, participants were asked to analyze and consider different modes of communication (e.g., spoken or written) and were introduced to six focal *teacher discourse moves* as tools that can be used purposefully to encourage classroom discourse that is both productive and powerful for students' learning. Further, issues of status and mathematical authority are addressed throughout the materials.

Participants in this study group included nine secondary mathematics teachers. The participating teachers included two middle school teachers and seven high school mathematics teachers with 0-17 years of teaching experience. Two teachers worked in urban schools, six teachers in suburban schools, and one teacher worked in a rural school. Three of the teacher participants were men (Xander, Kyle, and Bobby) and six were women (Diedre, Kelly, Bridget,

Donna, Kathy, and Maggie). The facilitation team included two faculty members and four graduate research assistants, all of whom had classroom teaching experience and had worked with prospective and practicing teachers previously. The PD sessions took place outside of the public school sites and occurred during the 2011-12 school year.

Data Analysis

Data analysis was conducted iteratively. We began by parsing the videos based on the particular type of PD activity (e.g., solving math tasks, looking at student work, discussing connecting to practice). As we moved through the video, we transcribed any instances in which participating teachers described students as having low-status or a deficit framing–e.g., using descriptors like "low-level," "struggling," or recounting a time when a student "couldn't do something." We then each used open coding (Esterberg, 2002) to describe and characterize teachers' descriptions of these students. Through discussion and comparison, *static* and *dynamic* became particularly salient theme. Static descriptions seemed to frame students relatively stable over time. For example, when teachers described students as part of a "low-level algebra class," the first order positioning is unlikely to change because the class that students are enrolled in is constant throughout the year. In contrast, dynamic descriptions seemed to indicate that a student's low-level status is subject to change. For instance, teachers gave examples of how a new content area allowed a low-status student to show their smartness in a previously unrealized way. Although these classifications helped us to understand aspects of the third order positionings, through our discussions, we came to realize that these positionings implicated reciprocal first order positionings for the teachers. We came to consensus that these first order positionings might impact whether a teacher felt as if s/he could do something (e.g., have agency) to disrupt these low-level status positionings. With this in mind, we returned to the transcribed incidences to identify teachers' first order positionings and to discuss the implications for action on the teacher's part. As we did this, we also located the third-order positionings within their framing storylines in order to better understand why the teachers may have positioned students as "low" and to understand the potential constraints on the positionings because of these storylines.

Findings and Discussion

We organize our findings based on two of the more pervasive storylines we found: an individual maturation storyline and a tracking storyline. In each sub-section, we provide illustrative examples of the teachers' reciprocal first order positionings related to the students' third order low status positionings. We discuss the first order positionings and their framing storylines in relationship to the ways teachers might see themselves as able to act (or not).

Individual Maturation Storyline

One framing storyline that was salient in the teacher's third order positionings of students related to student's individual maturation. Oftentimes, students were designated as "low" because they were seen as lacking the maturity necessary to be successful at mathematics:

Deidre: There are low-achieving students. You know. And it's really hard, especially in middle school, to sort out which ones are which. We get tons of kids coming from the middle school to ninth grade that for lack of a better word, grow up. And all a sudden, they're very good mathematically and they're sitting in a class they shouldn't be in.

Here Deidre began her turn by talking about low-achieving students and positioned students within a storyline of developmental maturation. Deidre acknowledged that "low-achieving"

students could be re-positioned as they matured, but that this change might happen "all of a sudden" and often resulted in continuing to "sit in a class they shouldn't be in." This latter point was framed by a storyline of a system of tracking students in mathematics courses (which we say more about in the following sub-section). Because maturation was something that Deidre could not control, there was little room for her to act to change this positioning of the students. Deidre's third order positioning of students was more fluid than static because it saw students as changing over time. Despite her awareness of this fluidity, she did not position herself as responsible for intervening by doing something like arguing in the district that students' mathematical potential is not easily identified in middle school. The reciprocal first order positioning of Deidre as an agent of change was limited; she did not position herself as someone who had agency to disrupt these positionings because the storyline was outside of her influence. Kathy's response to Deidre reinforced this perspective the storyline of individual maturity:

> *Kathy*: Well, some concepts in math are pretty abstract too. And I think that's a brain function, everybody's brain doesn't develop at the same rate. You know, someone who, who understands Calculus in the ninth grade, you know, whereas some kids don't, doesn't mean that they'll never understand it, okay. It might just be later on in life that it starts to click. So, I think it's safe to say that that's, I guess I didn't find people as low-level. I don't know that it's low-level. It's just that they… that's the level they're at.

Kathy explicitly acknowledged the fluidity of low-level students' position, in that it might just take some students a bit longer for things to "start to click." That is, all students can learn, but perhaps this learning takes place at different rates for different students. To Kathy, time and experience in conjunction with brain development were important parts of her storyline. This storyline restricted her from positioning herself as one who has the responsibility or opportunity to provide educative experiences necessary for such change. As such, the corresponding first order positioning of the teacher was one who waits for a student to be biologically or physiologically ready. Positioned in this way limited her agency as one who can provide meaningful mathematics experiences, instead attributing student success to brain development.

Together, these examples illuminated the storyline of developmental and biological maturity that framed the "low-level" status as internal and individualistic. This individual maturation storyline reminded us of Parks' point about the common metaphor of a narrow path. If the students' maturation was the center of attention, the metaphor of a narrow path in which some students must be ahead and others behind limited the range of potential solutions to better support students' learning. Although both examples positioned students in dynamic ways, these examples do not implicate teachers as agents of change. By using the storyline that students' success in mathematics was a function of their maturity, Deidre and Kathy "delimit[ed] a range of reasonable pedagogical responses" (Horn, 2007, p. 74). For example, another viable storyline could relate to calling "school mathematics" into question, moving from a view of mathematics as a "well-defined body of knowledge that is somewhat static and beholden to a particular order of topics" (Horn, 2007, p. 43) in order to reorganize and consider alternative ways in which this mathematics might be taught to make mathematical ideas accessible to more students.

Institutional Tracking Storyline

The other pervasive storyline we found related to institutional tracking, which was briefly mentioned above. Other teachers (in addition to Deidre) also enacted this storyline. For example, Kyle described his surprise when his "low-level" students used more mathematical language than their "high-level" peers on a task that emphasized group work and communicating ideas:

Kyle: I, ah, I got to [video] record two groups. And the surprising part about mine was, I did, ah, I guess what I would call lower level kids and higher level. And the lower level used more terminology than higher level. But the higher level just, they would look at the problem and I think they would just sit there and do it in their head. And just be like, did you get this for an answer. Yep. Ah, okay. Let's move on to the next one. Um...

Beth: So, [Kyle], can you say more about why you thought one lower level? Is it because they're tracked into a lower level class?

Kyle: They're not. They're just like, the one group that I have are, well, they are, I guess next year, they'll be going on to like the ninth grade algebra class. Where like the others kids were just like, don't do as high on the test and they're just going to go into eighth grade math. So, I mean, they're definitely just as capable. They are, they're not like bad students. But, there's a little bit of a difference between the two.

Kyle referred to two groups of seventh grade students with whom he worked and described them as "lower level kids and higher level." In his response to a facilitator's clarifying question about what he meant by "low-level," Kyle responded that the students were not yet tracked. He noted, however, that he already knew that some of his students would go on to ninth grade algebra, but others would "just" be going onto eighth grade math (which is actually at grade level, rather than accelerated). Although students were not yet explicitly tracked, we note that the institutional tracking storyline still framed Kyle's third order positioning of his students. That is, students were positioned as "low-level" because of their likely *future* placement into a particular track. Within this storyline, Kyle had little agency to support all students to be successful in mathematics. To him, losing some students during their mathematics journey was inevitable.

The presence of the institutional tracking storyline seemed strong enough that Kyle's views on how he might take action were limited, even in the face of evidence that may countered his positioning of students. He began by saying that he was surprised about what his low level students had done, highlighting the construction of differential mathematical ability in his classroom. Those students deemed "high-level" have learned that being good at mathematics meant "doing [math problems] in their head[s]" and may not have involved learning to communicate one's ideas to peers. The task, however, was about communicating mathematical ideas using "more terminology." This task provided an opportunity to re-position the students who were positioned as "low-level" because it allowed them to demonstrate that they were capable of doing mathematics. These students stepped up to the challenge and did something that surprised Kyle. Yet, Kyle still attributed a low status positioning to them. An alternative storyline might be to apply a "toolbox" (Parks, 2010) metaphor to describe student engagement with mathematics in order to disrupt hierarchical ways of talking about students. The toolbox metaphor highlighted that "[e]ach students can be seen as having certain tools that he or she can use effectively" (p. 93). With this storyline, the students Kyle previously deemed low-level would be positioned as successful with finding the right tool to be successful at this task: effective and precise communication.

Reframing Storylines

The illustrative examples included thus far show third order positioning of students as having low status. The storylines framing such third order positioning resulted in a reciprocal first order positioning of teachers with little agency to act and to make a difference in the students' learning experiences. These storylines were based on individual maturation and a

system of tracking. We propose that, as teacher educators, we might respond by introducing different storylines in response. Different storylines (e.g., considering alternative views of school mathematics or using a toolbox metaphor) might disrupt teachers' institutional and cultural storylines and at the same time, increase their awareness of how they might act to support students. Below is an example of such a case, although rather than a teacher educator herself disrupting the positioning, it was information the teacher read in an article in the PD. Prior to this excerpt, we read an article by Herbel-Eisenmann (2002) that discussed bridging informal and formal mathematical languages, and how each type of language was valuable to students' meaning making. Although still positioning students as a "low group" (within institutional tracking), Deidre described how she began to use bridging languages with her students, rather than only recognizing when students used official mathematical language:

> *Deidre:* I know with my low group, I'm talking about pre-calc, they are my low group, start to combine like terms, and distribute really simple things. And I found myself on planning this unit, to do a lot with using their terminology or making up, kind of generic terminology and saying the mathematical terms right next to each other over and over. They say, for instance, "terms," we used to call them "clumps." That said, "Where are my clumps?" And they are like, "Where are my like terms? I'm going to combine by like terms. I will combine the same clumps." And I see myself going back and forth with students and when they say weird words, I kind of incorporate them. So that is how I changed my plan. Before I would just give them [inaudible] distributive, commutative, do an example.

Although using the word "low" suggested that the teacher still positioned students in terms of low status, she acknowledged that her "low group" could express mathematical ideas and eventually take up more precise language. Despite the use of the word "low," her reciprocal first order positioning had changed to incorporate how she might better support students to do this. Instead of correcting students' use of informal and contextual language, she incorporated their language as a resource for teaching formal and official language. The original positioning of students as low was shaped within the institutional tracking storyline, but as Deidre continued to speak, she did not question the students' ability to do mathematics as she positioned students as people who can talk about mathematics, shifting the storyline to be about how students' developed language. This suggests that at this moment of time, the storyline of students' language development was stronger than the tracking storyline. As such, she positioned herself as an active teacher with agency who plans her lesson according to the students.

Conclusion

Building on the ideas of Horn (2007) and Parks (2010), we focused on when teachers position students as having low status. Examining the examples through the lenses of positioning and storyline, we came to understand that teachers unintentionally limit their agency by positioning students in particular storylines of individual maturation and institutional tracking. Given the current emphasis on standardized tests and assessment in schools, we understand how these storylines are powerful for teachers' framings of students' positioning. In addition to Parks' (2010) recognition of mathematics education researchers, policymakers, and artifact contributing to the social construction of a deficit view of students, we add aspects inherent to the structuring of schooling: using age to group students and move them through grade levels as if they are all homogeneous and, when they seem not to be the same, creating a set of tracks in which to place them from which they can rarely escape. As teacher educators, we now understand how such

storylines might constrain teachers' own agency in classrooms. The implications of this finding, for us, are to pay closer attention to the storylines that seem to frame teachers' positionings of students and to offer alternative storylines for teachers to consider that might both disrupt these storylines but also recast first order positionings so that teachers see how they might act to better support students' learning.

Acknowledgement

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