
Researchers and Researched as Other within the Socio-p/Political Turn

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This paper discusses the use of theoretical tools from the socio-p/Political turn for viewing the positionings of researchers and the researched in mathematics education. We focus on mathematics education contexts where differences in these positionings have the potential to stigmatise the Other. The research writing that provides the substance for the discussion is drawn from two research projects focusing on inclusion and exclusion in mathematics, one in Sweden and the other in South Africa. We argue that the socio-p/Political theoretical turn provides a common lens for viewing and working productively and ethically with the troubles of researcher/researched and researcher/researcher relations in and across contexts.

Introduction

Talking about his background in an interview, Luthando, a black African university student, located his home in a South African “township”. He said his “coloured” high school was “disadvantaged”, lacking computers and maths teachers but having large, noisy classes. He speaks isiZulu at home and learnt mathematics in English. Using community resources and “cutting out” classroom noise, Luthando “never failed”.

(le Roux, researcher, teacher, female, English-speaking, middle class, white, South African)

Talking about his ongoing problems with mathematics, Ara, 17, referred to his background; growing up with eight siblings in a Kurdish immigrant family in Sweden, speaking Kurdish at home but learning mathematics in Swedish. Ara said that after failing

year nine mathematics he attended a compulsory summer school “som min farbror undervisade” [that my uncle taught]. With his improved grade he qualified for upper secondary school. However, in addition he now also needed to work late nights at his brother’s pizza restaurant.

(Andersson, researcher, teacher, female, Swedish-speaking, middle class, white, Swede)

Relations between participants in the mathematics education community are the subject of ongoing debate, with researcher/practitioner, researcher/researched, researcher/research community, and researcher/researcher relations variously in view (e.g. Adler & Lerman, 2003; D’Ambrosio et al., 2013; Foote & Bartell, 2011; Skovsmose, 2006). In addition, international conferences and ease of communication in many countries provide enabling conditions for collaborative relations across countries and continents. Indeed, a researcher’s international collaborations in English, the lingua franca in the research community (Meaney, 2013), convey a level of status. However, internationalisation in mathematics education research brings with it conflicting discourses concerning equity, plurality, complexity and values (Atweh & Clarkson, 2002). Some researchers express reservations about what they have to offer participants in other contexts (e.g. Wagner, 2012). For some, collaboration requires publishing in English as a second or third language.

The reference style in the introductory quotes in this paper is deliberate, because this discussion paper is about us (Kate and Annica) as two researchers, about two mathematics students, Luthando and Ara, who are participants in research projects in South Africa and Sweden respectively, about mathematics education research in these contexts, and the relations between these. The commonalities between the two projects suggest possibilities for collaboration. The empirical focus of both studies is how students narrate themselves and are narrated by mathematics education discourses as included or excluded. We both describe the student interviews in our projects as deeply troubling, troubles related to the positionings of the researcher and researched as Other in mathematics education in our particular contexts. *Troubling* here signals that these research challenges are not just technical but personal and contextual. The projects also share a theoretical location

within the socio-p/Political turn (a particular naming we discuss in this paper). Where the projects differ is the contexts of the mathematics education research, differences that position, using Janks' (2010) words, Kate in the p/Political south, and Annica in the p/Political north.

The question we address in this discussion paper is, how do we work productively and ethically with this web of similarities and differences? To answer this question we pursue the argument that researchers can, in a powerful way, offer the mathematics education community appropriate theory and analysis that gives voice to others (Gutiérrez, 2013; Valero, 2014). We argue that tools from the socio-p/Political turn provide a common lens for viewing and working with the troubles of the Other in researcher/researched and researcher/researcher relations in different contexts.

We begin by explaining what we mean when we identify our theoretical work as located in the socio-p/Political turn. Next, we present troubling extracts from our research writing. We produced this writing, which is the substance for the discussion, over time as we explored our understandings of tools from the turn. This interaction between the empirical and theoretical allows us to consider knowledge production in contexts where differences in positionings have the potential to stigmatise the Other.

The Socio-p/Political Turn

Our choice of the word *turn*, rather than *perspective*, signals our awareness of the danger of fixing what or whom is included in a community and that we do not offer an exhaustive review. The tools in view are those we find productive in our particular socio-p/Political contexts, and hence our personal choice of the term *socio-p/Political* in this paper. Indeed our choice of references is itself a political act.²

Tools from the Socio-p/Political Turn

Mathematical practices are re-created in social and cultural conditions and are thus *political*. These practices are networked with other practices. *Power* is not an intrinsic and permanent characteristic of

participants or practices, but is situational, relational and in constant transformation (Valero, 2004; 2007). Power works between practices in the network and we use *Political* to signify these macro-level processes.³ Power also works at the micro-level in actions between participants, and hence our choice of *political*. The relation between a socio-Political practice and participants' micro-level socio-political actions is dialectical. On the one hand, the former practice gives meaning to micro-level actions, offering certain subject positions for participants. On the other hand the participants' actions give meaning to the practice – participants have agency (Stinson, 2008) and position themselves in ways that are reflexive, relational and contextual (Wagner & Herbel-Eisenmann, 2009). Thus, all participants are implicated in the construction and circulation of power and mathematical practices are the sites of both reproduction and resistance (Gutiérrez, 2013). Our use of the term *positionings* recognises that positions are given meaning in multiple ways at the macro- and micro-level.

These tools have implications for what we as researchers choose to bring into view and how we do this. They also provide a view of researcher positionings in the network of practices. We discuss these methodological and ethical entailments next.

Methodological and Ethical Entailments

Since macro-level socio-Political practices are not just background to but give meaning to participants' actions, it follows that both micro-level actions and macro-level practices, as well as the relations between these levels, are in view (de Freitas & Zolkower, 2009; Valero, 2007). This includes making careful discursive choices when giving voice to students at the micro-level (Gutiérrez, 2013; Stinson, 2008).

In addition, research in mathematics education itself is part of the network of socio-Political practices. This practice constitutes the objects of research (Valero, 2004). Since the researcher herself is positioned in the network (Valero, 2007), she is both constrained by the practice and positions herself in the practice. Thus the researcher's choices - the questions, the tools, what and how to write and in what language, the knowledge produced - are not neutral (d'Ambrosio et al., 2013). Thus the researcher is called to account for her own role in

the research, rather than simply saying who she is for transparency (Chronaki, 2004; Valero, 2004).

Before discussing our use of these theoretical tools, we develop our stories about Luthando and Ara, the two students represented in the introduction. This writing represents a particular moment in the ongoing interaction between our understandings of the tools and our empirical work with the interviews.⁴

Our Research Writing

Luthando's Talk about University

(le Roux, researcher, teacher, female, English-speaking, middle class, white, South African)

Luthando described how, as a school student, he told himself he was “definitely” going to the “best” university in South Africa. His application to study engineering was not successful. Instead, this university classified him as having the potential to succeed in science but educationally disadvantaged, and placed him in a support programme. Luthando described his initial “struggles” with mathematics, but within a few months his position was “good” and he was getting “all A’s”. Finding money to travel home for the vacation was difficult, but on campus he could use his financial aid to buy food and books. At that stage he said additional support was an “advantage”. However, after completing two years in the programme he encountered “definitions” and “proofs” in advanced mathematics and felt excluded from the classroom conversations:

... the lecturer is bouncing ideas around and you don't know what the hell they are talking about and you get students, really smart students, students who really, really love maths and [...] you get them interacting a lot with the lecturer and you are totally lost.

Luthando described other university students as “really, really disadvantaged”, but his and his family's concerns about his

difficulties securing a study bursary recurred in the interviews. In his fourth year at university he lost his “love” of mathematics, stopped attending classes, and failed one of his final courses. However, the next year he was told he could transfer to an engineering programme if he passed mathematics. With this career focus he secured a bursary and he spoke about providing his family and himself with a “good life” when qualified as an engineer. He felt motivated to pass mathematics, but said the support programme had been a “disadvantage” for his progress in mathematics.

Ara’s Talk About Mathematics in Upper Secondary School

(Andersson, researcher, teacher, female, Swedish-speaking, middle class, white, Swede)

At the end of Ara’s first semester in upper secondary school, Ara expressed concerns for not passing the compulsory mathematics course. After receiving a written warning [IG-varning], Ara gave an impression of resignation and worry:

I did not fix the tests so very well [...] but Elin will help me with extra assignments, [...] she said I had to just do it. I need to spend more time on it (sighs) and just hope for the best.

[Jag fixa inte provet så jättebra [...] jag kommer att få hjälp av Elin med inlämningsuppgifter [...] hon sa jag måste ta itu med det. Måste lägga mer tid på det (suckar) och hoppas på det bästa.]

When asked about the reasons for his bad results, he referred to his home situation. He had not informed his parents which he was expected to do, as he was afraid of their response. His parents were poor when they came to Sweden and they wanted a different life for their children. However, what Ara raised as his

main problem was his older brother who expected Ara to start early and work late every weekend at his restaurant. This affected Ara who became constantly tired and it reduced his study time.

When asked about his future, Ara told that he desperately wanted to move from his brother and the impact his brother has on his life and his responsibilities to earn money for the family. He gave a stressed impression in the way he tightened his shoulders and tramped with his foot when he reflected:

Must have my pass grade, it will not be a good life for me because mathematics is important. I hope it goes well.
(sighs)

[Måste ju ha betyg, det kommer inte att gå bra för mig i livet, matte är viktigt. Jag hoppas det går bra. (suckar)]

Ara said that it was difficult to concentrate in the classroom. Classmates disturbed him and he was always tired. Hence the tests become problematic and he failed:

It is as if my brain mixes up different things, it don't recognise the stuff I have studied when it comes on the math test. Then you're history.

[Hjärnan blandar ihop olika saker, den känner inte igen det jag pluggat när det kommer på matteskrivningen. Då är det kört.]

Lastly, with an angry voice he stated that he had the “Worst things at home to think of, and my teacher just talks about mathematics, she does not understand anything, she only thinks about mathematics”. He concludes that this situation is not unique; this is how it is in many immigration families. “We all know it but we don't talk about it with you.”

Locating our Writing in the Socio-p/Political Turn

The interviews with Luthando and Ara and other students in our projects are a remarkably rich source of student voice on their experiences of being mathematics students in the two socio-Political contexts of South Africa and Sweden. However, as noted, these interviews are also a source of deep methodological and ethical trouble for us as researchers, trouble related to the positionings of the students and ourselves in these contexts. In this section we use the tools of the socio-p/Political turn to discuss our troubles with the empirical data and how we respond in our writing. The tools bring into view the similarities in our work as mathematics education researchers, with the differences, our Otherness, lying in the contextual differences of the two countries.

Troubled Writing about the Other

As researchers we recognise the material, discursive and psychological load on students' lived experiences of particular positionings in our contexts. For example, in South Africa positionings like "black African", "township" and "English second-language" in turn position students like Luthando as "disadvantaged" re-accessing mathematical practices and the related symbolic and material rewards. For Ara in Sweden, positionings like "immigrant" [blatte] and "second-language student" position him in turn as "marginalized" relative to mathematical practices. These are loads that we, Kate and Annica, have not experienced and which position us as Other relative to students like Luthando and Ara.

There is a need for us as mathematics education researchers to give meaning to the complex ways that Luthando and Ara work with these positionings and their associated load in time and space. However, responding to this need means not using these positionings analytically in ways that become reified and have the potential to contribute to further stigmatisation and harm. This means, for example, taking care to represent the financial struggles of the two students' families and their wish to overcome these through education in ways that

are meaningful and respectful in South Africa and Sweden respectively. Responding to this need also means foregrounding particular positions for Luthando and Ara and backgrounding others not visible in the interviews. For Kate, it means taking care not to represent Luthando's "success" in university mathematics as a "good news story", a representation that backgrounds the relative lack of "success" of many students with backgrounds like Luthando, and potentially leaves the structure unchanged.

Bringing into view Luthando and Ara's complex work also requires writing about how they position themselves differently within one interview and also across longitudinal interviews. For Kate this means representing, in a linear way for publication, how Luthando over five years variously represents as "dis/advantaged" his home and school background and the support programme. For Annica, this means writing about, on the one hand, Ara's talk about wanting to be good in maths, wanting his parents to be proud of him and to be a good Muslim, but on the other, his stories about stealing video-films and cheating on maths tests. It means writing about how Ara variously positions her, the researcher, as an authority in mathematics, as a trusted confident, and as the Other, that is, as a Swede with whom immigrants do not share certain things: "we don't talk about it with *you*".

The socio-p/Political turn acknowledges students as "whole" individuals (Valero, 2004) and emphasises the importance of power relations at the macro- and micro-levels, positionings and discourses – in other words how we fluently relate to each other in particular contexts (Gutiérrez, 2013; Wagner & Herbel-Eisenmann, 2009). In the rest of this section we use these tools to account for our *discursive* and *p/Political* choices of what in the interviews to bring into view and how to do this.

Constraints on Discursive and Political Choices

Firstly, our words *discursive* and *Political* signify the theoretical view that the choices of Kate, Annica, Luthando and Ara are constrained in different ways by the wider contexts. As noted, positionings related to race, socio-economic class and language in our backgrounds have been identified as having effects on educational opportunity and

performance in mathematics both in South Africa and Sweden. Thus, our choice to write about these positionings and how the students position themselves in mathematics education is not idiosyncratic, but identifies the researchers and the researched as Other in ways that matter in mathematics education in these contexts.

These positionings in our backgrounds also constrain our discursive and Political choices in the present and future. Luthando is identified by the university as having the potential to succeed, but on the basis of his race, school and language background is placed in a support programme with other students positioned in this way. Being a support programme student in turn defines his opportunities to be a university mathematics student. Luthando himself looks back at this positioning as a “disadvantage”. Ara’s positionings do not qualify him for special education in Sweden, but he indicates that he might fail just because of these positionings. Thus, both students regard their current positionings as closing opportunities to be “successful” mathematics students in the future. Indeed, the importance of this success for the students’ futures figures large in the interviews; both Luthando and Ara suggest that their “success” in mathematics has implications for how they will be positioned in education, work, and family practices in the future.

The tools of the socio-p/Political turn bring into view how power works at the macro-level by offering particular positionings for students in particular contexts. Thus we can ask whether these positionings act in reproductive ways. The turn also brings into view how we as researchers, who are positioned differently to Luthando and Ara in the contexts of our research, may be complicit in that reproduction when we write. However, the socio-p/Political turn also brings into view participants’ agency and how power works reflexively and relationally at the micro-level. We turn to this next.

Acting through Discursive and Political Choices

Our use of the words *discursive* and *political* signifies the theoretical view that Kate and Luthando’s choices and Annica and Ara’s choices also act in the context of opportunity and performance in mathematics education in South Africa and Sweden respectively. The quotes Kate chooses for her writing about Luthando’s interviews indicate

that positionings related to race, socio-economic class, language and disadvantage are part of his language for talking about being a mathematics student with a particular home and school background in a support programme at university. Annica's choice of quotes indicate in a similar vein that positionings about being an immigrant, Kurdish speaking and marginalised are part of Ara's talk about his experiences in mathematics education. At the micro-level, these students' choices are discursive and political as they act agentially within the set of power relations to position themselves in various practices. These actions may involve reproducing, redefining or rejecting the positionings they identify in their respective contexts. In our writing we aim to bring into view the complexity of the actions of students like Luthando and Ara as they work to become mathematics students.

The socio-p/Political also brings into view how the discursive and political choices of both researcher and researched act in the interviews themselves. In particular we recognise how Luthando and Ara use language reflexively to position themselves politically at a particular moment relative to the past and future and relative to the researcher as Other. Ara positioned Annica as somebody he trusted and hence reproduced the positioning of a student who possessed important knowledge about mathematics education that should be shared with others. However, he also positioned himself as Ara, about to fail in mathematics. Ara positioned Annica as an authority and Annica recognised that he initially told stories he might believe she wanted to hear. However, later in the conversations he shared stories about stealing video-films, cheating on maths tests etc. And then, at the end of the second interview he positioned Annica as one of the Others, the "*you*"; one of the Swedes as opposed to the Immigrants when explaining "we don't talk about it with *you*".

This description of Annica's interviews with Ara illustrates well the reflexive, relational and contextual nature of the power relations in the interview process. Yet the nature of these power relations shifts when the researcher comes to write about the interviews. Recognising her own discursive and political power as a researcher in this context, Annica makes further careful choices aimed at building a rich and caring description of the Other. Firstly, in her wider study Annica asked participants to select their own pseudonyms. However Ara chose not to. Thus, Annica turned to a Kurdish language teacher at Ara's school who suggested and explained different Kurdish male

names. Annica chose “Ara”, meaning Wind, to represent the elusiveness of her research relationship with Ara at that moment in time. Secondly, following Meaney (2013), Annica represents Ara’s talk both in Swedish and in English. This move positions her and Ara in the context; Ara speaks Kurdish at home, Annica interviewed Ara in Swedish and transcribed in Swedish, Annica translated the Swedish into English for publication. Since English is not Annica’s home language, this final translation itself positions her in another set of power relations within the research community.

Finally, our self-identification in the introduction to this paper serves as a constant reminder of the inequities in the discursive and political choices of researcher and researched in our contexts and our responsibility to write about the interviews with care. It also foregrounds the importance of our work as researchers in giving voice to the Other. We cannot draw on our “lived experiences” Gutiérrez (2013) as marginalized or disadvantaged in our own contexts, but our “bearing witness” and “orienting” experiences (Foote & Bartell, 2011) in our own contexts makes this work our only choice. Our reference style also resists the dominant way of writing in the research community.

Conclusions

In this paper we (Kate and Annica) have discussed research troubles that stem from meaningful differences in researcher/researcher and researcher/researched relations within and across contexts in mathematics education. Drawing on interviews from research projects in Sweden and South Africa we have surfaced the trouble of accounting for what we bring into view and how we do this in our writing about the Other in each of these contexts. We have also surfaced the troubles of collaboration between researchers who share common research interests, but whose contexts position them as Other relative to one another.

We have used the interaction between the empirical and theoretical in our writing to argue that tools from within the socio-p/Political turn enable us as researchers to view and to work productively and ethically with this web of similarities and differences. That is, we can view relations of Other within and across contexts in terms of

power relations and positioning in the dialectic between macro-level socio-Political practices and micro-level socio-political actions. These tools enable us to account for our discursive and p/Political choices of what and how we write about Luthando and Ara respectively. These tools also provide a framework for us to work productively and ethically with one another as researchers, as these tools open up the wider socio-Political contexts that define our Otherness and inform how we work with one another. They also foreground how our discursive and political choices position one another in our collaboration. Using interviews from research projects in our own contexts to explore our understandings of the socio-p/Political turn leads us to suggest that working within this turn is not just about using particular tools, but also about assuming an “attitude” that seeks for consistency between those tools and our actions as researchers in researcher/researched and researcher/researcher relations.

Notes

1. This project is financially supported by the Andrew W. Mellon Foundation.
2. We reference researchers specific to mathematics education, but acknowledge that their tools draw on wider social theory. We refer the reader to the referenced work for more detailed exposition of the tools and their antecedents.
3. The discursive move to use upper and lower case characters to signify power relations at different levels of the social is inspired by, but not conceptually consistent with, other such moves (c.f. Andersson, 2011; Gee, 2005; Janks, 2010).
4. The texts in this paper are necessarily short, but are elaborated more fully in a further paper.

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