

# How do pedagogic practices impact on learner identities in mathematics? A psychoanalytically framed response.

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## INTRODUCTION

To answer the overarching question on pedagogy, this chapter draws on psychoanalytic theories and research to explore, from a pupil perspective, the experiences and impacts of different pedagogic practices as they are experienced within relationships. My focus will be on the ways relationships and subjectivities frame and constitute what is known and knowable. This focus has arisen from an analysis of two research projects (described below) and a struggle to make sense of the disjunctions and tensions vivid within and across them.

Even contemporary definitions of pedagogy fail to account for the ways relationships and subjectivity constitute knowledge. They tend to focus on the teacher's and learner's rational acts and conscious processes. For example:

[Pedagogy is] any conscious activity by one person designed to enhance learning in another.

(Watkins & Mortimore 1999: 16)

I find this kind of definition problematic; its valorisation of conscious processes leaves unconscious desires and resistances unthinkable; abhorrent. But what does it mean to define pedagogy as being about relationships? Relationships are hard work, they involve knowledge and thinking that goes beyond the rational. What space is made for such thinking in schools and classrooms? And where does this leave any notion of a 'pedagogic practice', be that 'teaching styles, tools and resources' or something else? How do the currently highly valued rational 'technologies of teaching' (assessment, inspection etc) fit with the idea of pedagogy being about relationships? A psychoanalytic perspective might suggest that they are defences against something; the question is *what unbearable knowledge have the systems been constructed to defend against?* (Britzman 2003).

Mathematics education has traditionally drawn on cognitive psychologies such as those of Piaget and Vygotsky or more recent variants (see for example Von Glasersfeld 1990; Engstrom & Cole 1997) to theorise classroom learning. Within education, and perhaps particularly the hyper-rational world of mathematics, there is a general (though not universal) mistrust of psychoanalytic theories and of thinking about the unconscious; there is often concern about what the two disciplines have to do with each other. Britzman's (2003) suggestion is that both are about making a connection to 'the unknown and the incoherent', the inchoate.

If we focus on curriculum content, on the perceived benefits of education, on

the systems and institutions, then we may be able to insist (for a time) that education is a rational enterprise: known, knowable and coherent. But to allow ourselves to explore Britzman's suggestion we need to acknowledge the ways in which education *is* about the unknown and the inchoate: what learners may or may not know and understand, the way these shift according to context and time, the way the experiences of education can sear themselves upon our memories as intended knowledge through a teacher's happy use of an apt metaphor, or as the burning shame of a moment of humiliation never to be forgotten or forgiven (Bibby 2002).

As Britzman has noted, even for those motivated to learn between the two disciplines, there is something difficult about the enterprise:

There is, in educational life, something paradoxical about how the unconscious can actually be considered, particularly because ... the needs for tidiness and simplicity, so tied to dreams of mastery, prediction, management and control, are all idealizations that defend against the loneliness of institutional life. ... [This] institutional ethos of systematicity ... forecloses any thought of the unconscious and, hence, the work of interpretation itself.

(Britzman 2003: 98)

Britzman suggests that, if we could tolerate the emptiness and loneliness of not knowing, then we could start to learn and to know differently. If we could face the unknown and bear the feelings it arouses we might begin to be able to stay with the discomfort and think rather than flee to illusory comfort in unthought. Britzman suggests this coming into contact with the inchoate is a process which "*entails being able to lose not the object [knowledge] but its idealisation*" (p163). It is education's valorisation of knowledge and knowing that idealises it: education as the turner-of-keys, the economic driver. Education can do no wrong, it is wholly and common-sensically 'a good thing'. These idealisations defend against the terror of the unknown: Can I be successful if I choose not to go to university? What will happen if I don't get Level 4 in my SATs? What would it mean if I was a failure? Or a success?

To foreground the unconscious and explore the less rational aspects of being in school and of coming to know, this chapter draws on psychoanalytic theories to consider how we might develop and understand a learner-derived definition of pedagogy. This enterprise will raise questions not only about what we might do with such an understanding of pedagogy, but also what it might mean to ignore it.

## **A PSYCHOANALYTIC FRAMING**

The work of Jessica Benjamin (2004) can help us to begin to differentiate various ways of relating. She highlights a distinction between what she calls a one-way, 'doer/done to' relationship and one characterised by two-way 'intersubjectivity'. Most relationships, she suggests, are characterised by a difficulty in acknowledging the other person as a separate centre, someone whose subjectivity is separate from and different to one's own. This is difficult

because it requires us to recognise communication as a two-way street. That means we need to accept, not only that someone may hear what we are saying, but that it will have effects on them that we can only begin to know if they help us to understand them. To acknowledge the other, to 'hold them in mind', requires that we step beyond ourselves, as far as possible we surrender our need for control so that we can 'see' and 'hear' what the other person is saying, not what we want to hear them saying. She characterises this as a process of creating a 'third space' (not mine, not yours, but ours) in which, through the construction of 'a dialogue that is an entity in itself' (Benjamin 1998 xv) both can begin to experience each others' subjectivities and construct an intersubjective relationship.

If such intersubjectivity cannot be managed then we experience communication as a one-way street. In the one-way street of the 'doer/done to' relationship one party is experienced as requiring the other to submit to their control. Ironically, the other feels exactly the same. An example of this, the tit-for-tat way it oscillates back and forth and the apparent impossibility of moving on, can be imagined if we think of a 'difficult' class who leave their teacher feeling 'got at', invisible, and deskilled. The teacher feels persecuted ('done to') by the class while the class, simultaneously feel 'done to' by the teacher who, by their nagging and shouting, appears not to like them. Each experiences victimisation at the persecuting hands of the other. This kind of relationship is very difficult to move on from. We return to these ideas to consider the data below.

The psychotherapist most associated with work on the nature of thought, thinking and knowledge is perhaps Wilfred Bion who uses different terms to connect the development of knowledge to a similar relational process. He talks of the existence or otherwise of a Knowledge Link ('K Link' and its opposite, a 'minus K Link', '-K'). The K Link is that linkage present when one is in the process of getting to know the other in an emotional sense, and this is to be clearly distinguished from the sort of knowing that means having a piece of knowledge about someone or something (Symmington & Symmington, 1996). For example, a teacher may try to discern whether a pupil knows something by giving them a test. In relation to pedagogy understood in terms of relational knowing, traditional assessment practices seem problematic. Traditionally the test is seen as an efficient way of measuring knowledge precisely because it is 'easier' (less personally demanding) than risking the emotional engagement that would be required if teacher and learner were to try to develop a mutual understanding of knowledge through discussion. The process of getting to know involves pain, frustration, and loneliness. Obtaining a piece of knowledge *about* a person does not involve these states, it avoids emotional involvement and the pain and difficulty of trying to come to know. Bion stresses that '*there is a continuous decision to be made as to whether to evade pain or to tolerate and thus modify it*' (Symmington & Symmington 1996: 28) and that learning can only happen if the pain is engaged with. This is the difficulty Britzman identified in making a connection with the unknown and the incoherent and that Benjamin located in constructing an intersubjective relationship. As the Symmingtons explain:

The [K] Link is a crucial way in which the emotional experience of learning takes place. [*If a decision is made not to tolerate the pain of learning it becomes a...*] Hatred of learning, [and]..., leads to an attack on the link, resulting in the process being stopped and even reversed. Thus, instead of meaning developing, or thinking being promoted, there occurs a reversal of the process so that any meaningful units become stripped of their meaning. (1996: 29)

Forces against the emotional experience of being understood are legion, both within the individual and within society.

Traditionally, mathematical curricula and process knowledges are treated as 'knowledge about'; my suggestion is that this is highly problematic. What is notable, talking to children of all ages, is the extent to which they *know* that *what and how they know content* is intimately bound up in relationships. I therefore suggest that for pupils, curriculum knowledge is bound with the K Links in the classroom: the emotional connections to, and work with, teachers and peers. What is equally interesting is the way many teachers work to deny this link thereby fostering –K Links. Perhaps this denial relates to a fear of contact with the unknown or the inchoate, maybe a fear of being overwhelmed or other implications of a more personal intervention being needed? Although, how can teachers themselves learn and develop their teaching if they are not prepared to acknowledge their end of the K Link? If they are not prepared to enter into the difficulty of the *being in and with* in the classroom?

## THE RESEARCH CONTEXTS

Two research projects are drawn on to develop the arguments in this chapter. Both were conducted in working-class, multi-ethnic, inner-urban schools in London, England. In the first pupils aged 11–13 years (Key Stage 3 (KS3)) were interviewed in friendship groups about their learning and teaching. In the second, longer study, researchers followed one class of KS2 children for 5 terms from Year 4 (aged 9) to Year 6 (ages 10–11 years)<sup>1</sup>.

Transcripts from the KS3 interviews highlight characteristics of learning and teaching which the pupils valued. Further, they point up the disjunction between the pupils' thinking and meanings and those of the teacher who interviewed them. Broadly we can think of this disjunction as between the teacher's insistence on an individual conception of learning and of teaching designed to facilitate 'filling up' the individual with subject knowledge, and the pupils' more collective and social sensibilities regarding their learning. Having had a powerful and positive set of experiences with Steven Blake, a maths teacher they clearly valued, the KS3 pupils struggled to make their meaning clear to the (non-maths) teacher who interviewed them. In direct contrast to the positive and generative learning relationships the KS3 pupils talked about, the KS2 pupils often expressed anger and frustration about their learning and struggled to develop positive relationships with their teachers. In their words

<sup>1</sup> ESRC project number RES-000-22-1272 "Children's learner identities in mathematics at Key Stage 2".

we seem to hear a longing for the kinds of pedagogic experiences that the KS3 students described. The tentative redefinition of pedagogy emerging in this chapter is developed from the experiences described by these different groups of children.

### **A FOCUS ON RELATIONSHIPS?**

The aim of the KS3 interviews was to explore the connections children had made across areas of the secondary school curriculum as well as the kinds of learning and teaching they enjoyed and the contexts they experienced these in. Analysing the interview transcripts I was struck by two things: the love and students felt for Steven, their maths teacher; and the teacher/interviewer's and pupils' different agendas.

In response to the teacher/interviewer's question about whether "... *the way you learn in maths lessons different to the way you learn in other subjects?*" pupils struggled to describe the ways in which the learning and teaching varied. The root of their difficulty was not particularly that this was an unexpected question but related rather to the different focus of the teacher and the pupils and the miscommunication they were labouring under. After a long group-constructed description of the practices of one particular teacher the teacher/interviewer asked:

- T/I Is that different to other subjects?  
P I think it's different teachers.  
T/I No, we're talking about subjects.

Throughout the KS3 interviews the teacher/interviewer was thwarted in her desire to focus on curriculum subjects. She was unable stay with the intersubjectivity the pupils were focussed on and kept trying to move back to an abstracted notion of a mathematics that could exist outside relationships. This may have related to some professional discomfort around talking to pupils about colleagues. Or it may have been that, in common with many people, she had so completely split the maths from the people doing the knowing that she had lost any sense of knowledge being generated and held inside relationships. Certainly the thrust of all formal educative processes would support her in developing such a split. A suggestion that flows from this is that, for secondary school pupils at least, what a subject *is*, epistemologically speaking, is as much about the teacher as it is about the content or other more adult concerns.

***What does a focus on relationships look like?*** There were two themes which characterised the KS3 pupils' talk; these can also be found in the KS2 data. These are: (1) mutuality, and (2) being seen and valued; it is the second of these that is the main focus of this chapter. A number of smaller themes nest within these. For example, the importance of a teachers' perceived generosity and caring might be understood as gestures that confirm the value a teacher places on the group or an individual:

He gives you like activities to do instead of just going straight on working in books ... and if you're in science ... they just make you look

in the board and do other things in books.

Here (and elsewhere) the students seem to be indicating that their teacher 'gives them stuff', that there is interaction, a movement from the teacher towards them as people. They feel thought about, and they seem to be valuing this and expressing gratitude and pleasure at what they experience as his generosity in providing social and emotional space: a generosity of spirit perhaps. Such generosity and caring was identified as being particularly associated with giving time: the planning of special activities, the careful marking of work, the playing of a game, a comment such as 'I was thinking about what happened in the last lesson...'. We might think of all of these as examples of an individual or group being 'held in mind'.

### **MUTUALITY**

When asked how they learn in maths lessons some KS3 pupils mentioned what we might expect: equipment, working things out, memorising, but others talked slightly differently about mutuality and the 'groupness' of the class and particularly the larger notion of the class-with-teacher: '*We cooperate with each other and the teacher*'. Throughout both projects, and especially the KS2 project, this focus on the group is striking and stands in marked contrast to teachers' focus on individuals. I briefly mention these differing emphases on the importance of the group and the individual as it seemed to lie behind much of the confusion that existed between teachers and pupils. The individualism inherent in the opening definition of pedagogy might be unwelcome to many learners.

### **BEING SEEN AND VALUED**

Experiencing a two-way, intersubjective relationship, being 'held in mind', requires one to be 'seen' and 'heard'. That is, to be accepted intersubjectively, one's subjectivity needs to be available to and accepted by the person at the other end of the two-way street. Understanding this takes us some way towards making sense of the value children from both schools placed upon such experiences.

One group of KS3 pupils spent considerable time and effort trying to explain the importance of their pedagogic relationships by contrasting their experience of being with Steven Blake, their usual maths teacher, with their experience of being with a student on teaching practice. Here we begin to get some idea of the importance of being 'seen' for what and who you are, individually and as a group. The relationship with Mr Blake might be characterised as being experienced as 'intersubjective' while the experience with the student teacher has 'doer/done to' characteristics.

*What is the best way of learning in maths lessons?*

Doing it off the board and the teacher helps you out [*a reference to Mr Blake*] 'cause when you do it from the books [*the student teacher*] just speaks and gets annoyed

If you get to speak in front of the whole class explaining why you think

it's this and like everyone sharing their own methods [*reference to Mr Blake*], instead of the [student] we've got right now [... who] says we can only use this method. [...].

Sometimes we ask her like for help and she doesn't understand it. She tells us what she thinks I said and then walks away and then helps like five other people before she comes back.

Here, we hear pupils commenting on the student's desire for control: she gives them what she thinks they need without asking and hears what she wants to hear, not what is said. In this sense the relationship they are complaining about can be characterised as being 'doer/done to' and within such a relationship one cannot be held in mind and remains unseen and unheard. The contrast here is between a teacher who is currently unable to listen and one who can, and who can also provide the psychic and emotional space for them to explore explanations and ideas without needing to exert a particularly stifling kind of control.

### **BEING NEITHER SEEN NOR VALUED**

The project conducted in the primary school was planned to give space for children's voices and interests. Here, we get some insight into the fury of children who have a teacher (Rachel South) who might be thought of as Steven's antithesis; a teacher who had bought into new managerialist discourses (Ball, 2003) and who believed (at some level) that children learn because she tells them to. The lack of psychic and emotional space in this classroom was startling. Here Sabrina explained what it was like being in their classroom. This comment and the following two come from the same group interview:

Sabrina: OK, Miss South, she sometimes ignores me and stuff, [...] It hurts my feelings. [This makes it] harder [to learn], and like I open my book and I see that I get all the questions wrong, wrong, wrong, wrong [...] and it's not my fault [...], it's Miss South's fault that I got everything wrong. [Then] I feel guilty [because...] Miss South ignored me [...] I don't know why I feel guilty.....it's still quite my fault because I got the questions wrong a bit, but it's normally Miss South's fault.

The experience of Miss South who learned *about them* only through their work was experienced as diminishing in some way. That she didn't value them enough to learn *from them* left difficult feelings of blame and guilt, feelings we might associate with some nebulous notion of persecution (of being 'done to').

Feeling 'done to' can result in a chronic negation of self. Sabrina's experience of guilt seems linked to an idea that there was something that she had failed to do. It is as if she felt personally responsible for her own invisibility although she struggled with this feeling. Could it really be her fault that she was unworthy of Miss South's love and notice? Or was it Miss South's fault too? Sally seemed less willing to struggle with complex feelings of complicity and

doubt. To her it was clear that Miss South was unfair because she didn't like her.

Sally: Well I feel like that, because, I put my hand up and she never chooses me, especially in maths, she loves the other year 5 class and then like she blames me if I've got it wrong, it's like '*Sally you don't understand*' but it's her, she doesn't understand and then when I'm ignored I don't like it, I feel left out [...] But then she says I only ignore you, it's because you're so clever, but then that's not true. [...] I think it's just she doesn't like me [...] When you keep on being left out, you think of something, you think that oh maybe they don't like you and that's how I feel. [...] So] it's a bit difficult to like concentrate and then she's like '*you're not concentrating properly*', but then when you tell her '*you're leaving me out*' she doesn't know how you feel because it's not happening to her! [...] cos she's being, like everyone's surrounding her going Miss South, Miss South!

Sally struggled to know how Miss South could know and understand the loneliness of not knowing, of being a learner. How could she possibly empathise? It wasn't happening to her. For her, Miss South can experience the precious safety and value of being held in mind while Sally can't; she expresses envy towards the teacher who is believed to be seen and thought about by everyone in the class. Feelings of envy are very difficult to process and here we see them turning to anger and violent fantasies

Sabrina If I was Miss South yeah and Miss South was me yeah, I'd just squash her like a fly

So, unlike Mr Blake who was talked about with respect and gratitude, Miss South was engendering fury. Over the course of the year the children in her class repeatedly tried to form relationships with her and she repeatedly refused to respond to their attempts holding herself apart and aloof. The only relationship possible with this adult was one of subservience to her domination. Again, the themes are a demand for empathy, for listening, for being 'seen' but here we see the effect of these not being met, of the children feeling unseen, unempathised with, treated dismissively and devalued. Of a teacher (and school) whose parsimony with time and effort was experienced as extreme, as ungenerous and unthoughtful (although the story constructed by the teachers was of economy of effort, not reinventing the wheel etc). The teacher:pupil relationships in this classroom might be characterised as 'doer/done to' and as demonstrating a destructive –K Link in which (mathematical and self) knowledge was actively destroyed.

### **MATHEMATICS LEARNING IN THE PRESENCE OF A –K LINK**

So what does this mean in terms of the way the KS2 children came to relate to the mathematics they were learning? This is difficult to answer; it is hard to tease apart the mathematics learning from other learning in the classroom. However, as in so many schools and classrooms, mathematics lessons did provide an extreme environment.



Time, the curriculum, the assessment procedures, the 'vital necessity' of success in mathematics are some of the institutional systems that we have put in place to defend against the unbearable knowledge that we have to develop relationships to learn and to enable others to learn. Indeed, throughout the KS2 data there were many familiar stories: of a focus on speed, of right answers, and a focus on how things are done and recorded rather than what is done and recorded and why.

### **MUTUALITY REVISITED**

The desire to both belong to a group and to remain a visible individual holds a tension for all of us (Bion, 1961) yet in today's educational climate the pressure to be an individual is nearly overwhelming. For children in both projects being part of a group and the sociality of learning and knowing were paramount although their teachers and the school system drove them apart. Focussing on the relationships formed with the teachers and the maths we can see that these are at the heart of the possibilities we have for knowing ourselves as learners. During a group interview Muhi and his friend Matthew struggled to make sense of why they had both been moved from the 'middle' maths group, Muhi into the 'bottom' and Matthew into the 'top' group. They explained first that they'd been working together and thought they were getting the same marks in their work and tests. Unsurprisingly, Muhi is particularly indignant and struggles most:

Muhi Yeah, I got to the lowest [group]. And Miss Middleton hates maths, so guess what she does? She says 'right, get all your times tables done' and then she gets paper and we just have to colour, like reception.

Mat. Miss Middleton is fun. I wish I was in her maths group

Muhi But she hates maths. She doesn't even learn us maths. Its [very] boring, we just had to colour like reception [...]

Emran When Miss Middleton took us just for a bit she never taught us it and I think it was just a waste, I don't know, of teaching. Because I learned more from when we had to do sticking to make a collage

Matthew seems to try to make it okay for Muhi to be in Miss Middleton's bottom maths group, it must be fun. But for Muhi there is only frustration; he is left not learning a subject he used to enjoy and he feels diminished by the experience. Eventually Emran confirms his interpretation of the lessons: little learning happens. Muhi feels helpless and angry faced with a teacher who refuses to acknowledge or form a two-way relationship with Muhi-who-enjoys-maths and who assumes that all the children in her bottom group share her wish to avoid the subject. How can he know how to behave with this teacher? Here, in the face of a -K Link, his understanding of himself as a collaborative and successful mathematics learner has been stripped of meaning and he is left empty. His energies, once focused on learning mathematics, shift as he struggles to understand his sense of loss, disappointment and bewilderment: who am I now that I have been demoted to this non-maths maths class?

## **PEDAGOGY RETHOUGHT: SOME INCOMPLETE THOUGHTS**

Education in England today is fixated on idealised imagined futures brimming with fulfilment gained through knowledge and the educative enterprise. The pressures of accountabilities (the 'market' of parental choice, league tables etc.) keep this idealisation active. For teachers who, like the rest of us, want to feel seen and valued, who desire the experience of being held in mind in an intersubjective space, their accommodation to the pressures they experience may seem sensible, perhaps even inevitable. But we have begun to see how these accommodations can be experienced by those in their classes and the value placed upon those teachers who can resist passing the pressures down.

Idealisation is impossible to live with, putting anything or anyone on a pedestal invites disappointment. Through their continuing connection to the relationships of the classroom the children had some awareness of the complexity inherent in both wanting to belong to the group and to be special for themselves, of wanting perfection and resenting the envy it engenders, of the difficulty of accepting the uncertainty that contact with the unknown and the incoherent bring.

In the classroom characterised by one-way relationships the –K Links that prevailed stopped children like Muhi making contact with their inchoate mathematical and social knowledges: knowledge was thereby actively lost. The difficulty of wanting to be seen and valued while feeling invisible and worthless diverted attention away from academic learning and towards making sense of the intensely painful feelings that took their place. Comments in the field notes record the agony of this:

Rhatul is still working out his problems but to confirm his progress he calls out '*Miss, I'm on number thirteen!*' I am intrigued by this constant updating and ask him why he calls out to the teacher. He looks a bit shy but then answers quietly '*because sometimes she doesn't care what number I'm on.*'

And in an interview

Minnie: Well ... I always have my hand up and Miss South never picks me, like I had my hand up before Sally and Miss South picked Sally.

Researcher: that does sound difficult, how does it make you feel?

Minnie: Broken

Throughout this the KS2 children continued to think about the teachers in ways that their teachers appear not to reciprocate. The children thought about why the teachers behaved as they did. They spent a great deal of time and energy trying to understand and lessen the pain the teachers unwittingly generated. In an act of empathy one group of girls explained to the researcher that they believed the teachers didn't think about them because they were stressed; simultaneously they bore witness to some damaging effects of idealisation.

Res: Why do you think the teachers get so stressed?  
 Minnie: Because they want it to be perfect.  
 Rani: Yes, it all has to be perfect.  
 Minnie: They think we are perfect child, but we are not. We are just children.  
 Rani: yeah, every child ain't perfect. There is always something...  
 Minnie: Wrong with them.  
 Rani: Not wrong with them. But they ask that we all be perfect.

When we loose our idealisations, when we stop defending against the difficulty of knowing and *learning from* we are forced to look at our difficult feelings. It seems that sometimes children are more willing to do this than we are as adults. Sabrina's struggle with guilt, blame and complicity begin to show what is at stake here. Idealised I can never be seen or heard, I can never experience being held in mind (since I cannot truly exist), I can only ever feel persecuted. And, in the unsatisfactory and defensive tit-for-tat, attack and counter-attack of a 'doer/done to' relationship, if I feel persecuted by you, you will feel persecuted by me.

If we accept that a definition of pedagogy needs to be founded in relationships or relationality then we cannot continue to operate with the idealisations of learning and knowledge that pervade schools and maths classrooms. Intersubjective relationships cannot survive idealisation. In this chapter I have tried to show that doer/done to relationships result in knowledge being lost, in the energy for learning being diverted. Padoxically, giving time and space to the development of intersubjective relationships may create more generative 'academic' learning time. Addressing this will require a radical rethink in mathematics education. This is not a new idea although I may have cast it in somewhat different terms. The inchoate and learner-derived definition of pedagogy I have begun to articulate here leaves any decision to ignore its premise highly problematic and deeply unethical.

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