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"ITS INFLUENCE TAINTS ALL": MATHEMATICS TEACHERS RESISTING PERFORMATIVITY THROUGH ENGAGEMENT WITH THE PAST

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In England, globalisation and neoliberal political agendas have created an environment in which teachers are constantly measured and ranked and subjected to a discourse of marketisation, managerialism and performativity. The effect is to erode their sense of independence and moral authority and to challenge their individual and collective professional and personal identities. The need to understand the current policy environment, to step aside and look on critically, becomes more important even as it becomes more difficult.

Many teachers are engaged in re-storying themselves against this audit culture. We argue that it is possible, through excavating the past, to offer current day teachers stories to support this process of re-envisaging what they are, might be and might become in their professional lives. Here we offer a response from a currently serving teacher to the experience of performativity and illustrate some ways in which she is able to mobilise such stories in her resistance to dominant, neo-liberal discourses.

SOCIAL AND POLITICAL CONTEXT

In England, since the 1988 Education Reform Act, education has been subject to constant reform. Government interventions, particularly the monitoring of school students, teachers and schools and the high stakes consequences of the judgements which are then made, have had consequences for teachers' identities, subjecting them to increased surveillance and reducing their independence (Day & Smethem, 2009). The 'audit ideology' (Groundwater-Smith & Mockler, 2009, p. 5), evident in the school inspection system, and the accompanying league tables are key tools of the neoliberal political context, an environment within which teachers and schools are constantly measured and ranked and education itself becomes recast a consumer good rather than as a public service (Macpherson, Robertson & Walford, 2014). This 'epidemic of reform' changes who teachers are as well as what they do (Ball 2003, p. 215). Ball (2003) notes the three interrelated policy technologies of this epidemic: the market, managerialism and performativity. The effect of government interventions in many countries, England included, is 'to erode teachers' autonomy and challenge their individual and collective professional and personal identities' (Day & Smethem, 2009, p. 142). We are indeed in the grip of the terrors of performativity and a struggle over the teacher's soul (Ball, 2003).

In their study of one English comprehensive school, Hall and Noyes (2009) use the Foucauldian notion of regimes of truth and note how these operate to normalise the use of data to determine the needs of staff and students, changing the nature of teachers' work as they come under increasing pressure to document and justify performance. This delivery discourse has the ability to shape,

order, position and hierarchise those in the field through systems of comparison, evaluation and documentation, making everything calculable:

it is impossible to over-estimate the significance of this in the life of the school, as a complex of surveillance, monitoring, tracking, coordinating, reporting, targeting, motivating (Ball, Maguire, Braun, Perryman & Hoskins 2012, p. 525).

Currently, in England, pupil performance in mathematics examinations at age sixteen usually operates as the single most important item of data in judging secondary schools, with mathematics teachers therefore routinely experiencing greater pressure and coming under more scrutiny than most if not all of their colleagues.

We agree that 'not all teachers are convinced by the rhetorics of performance, and many teachers are not convinced all of the time' (Ball, Maguire, Braun, Perryman & Hoskins, 2012, p. 588). Imagining an alternative to the role that falls to teachers in such an audit society, Sachs calls for teachers to take on an 'activist identity' (2001), one which arises from democratic discourses and has social justice at its heart. The construction of reflexive self-narratives aids a critical examination of the policy environment; moreover Sachs proposes that such narratives, made public, may be a productive support for professional learning. 'Professionals must re-story themselves in and against the audit culture' (Stronach, Corbin, McNamara, Stark, & Warne, 2002, p. 130).

Many teachers are engaged in this re-storying in a variety of ways; we argue that one way in which it is possible to support them is through excavating the past, creating a 'public resource' (Nixon, Walker & Clough, 2003, p. 87), available to current day teachers to re-envisage what they are, might be and might become in their professional lives. We are currently engaged in such a project centred on *Smile Mathematics*. If reforms following the Education Reform Act have supplanted existing ways of understanding for those inhabiting the educational landscape, destroying organisational memory (Goodson, 2014), then the current project aims to counter this, preserving such memory, by drawing on two interrelated narratives: a narrative of a mathematics curriculum initiative of the time (*Smile Mathematics*) and narratives of individuals' professional life stories. The former 'systemic narratives' are based on documentary analysis of historical documents (Goodson, 2014, p. 34-35), some already archived and some collected as part of the project; the latter are being collected through reflective writing and conversational interviews. We will also be seeking to address the question: if the purpose of the curriculum is to control, to limit teachers' freedom (Goodson, 2014) how was this subverted in the *Smile Mathematics* project, with its central tenet of authority of teacher and learner, and what conditions are necessary for such a project to flourish in the future?

SMILE MATHEMATICS

There is, to date, no socio-historical study which has explored the development of teacher led curricula innovation in mathematics teaching in England during the period 1970 to 1990. In particular, the *Smile Mathematics* project, which was one of the most significant curriculum change projects of the era in England, has itself not been the subject of academic study although some contemporaneous accounts exist (not currently archived) and some retrospective descriptions are available (for example, Povey, 2014).

The Inner London Education Authority's (ILEA) *Smile Mathematics* was innovative in embracing a commitment to all attainment teaching, teacher creativity and an investigative, problem-solving pedagogy. It saw itself as learner centred and gave considerable responsibility to students for organising and shaping their own learning and that of their learning community. It had its roots in the 1970s, a time of reconstruction in the English school system characterised by a commitment to social justice and building upon curriculum development projects of the preceding decade (Goodson, 2014). Although supported by the local education authority, it was the result of teacher initiated change. Locally based, it nevertheless influenced thinking about mathematics teaching across the UK and internationally. Teachers were released from school duties for one day a week over many years to form a working collective to create, refine and publish imaginative and inspiring mathematics curriculum materials for use in their own classrooms and beyond. Equally distinctive and equally important, the structure of the project instilled a deep democracy, with decision making resting with a consensus of those who participated. Any, and all, were welcome and could contribute. Fairly early on, the ILEA Chief Inspector for Mathematics argued with the assembly that a more conventional democratic structure consisting of elected hierarchies with committee members and so forth should be set up; but when this was rejected by the collective, he allowed its will to prevail. *Smile* flourished with this open authority structure which placed the teacher at the heart of decision making.

Our project, which at the time of writing has only just begun, will examine the contrast between the opportunities that *Smile* afforded for democratic professionalism, a concept which has collaboration at its core (Whitty, 2006), and the current dominant discourse which enshrines a managerial perspective enforced through compliance with teaching "standards" (Kennedy, 2007; Sachs, 2001). We are seeking through the project to illustrate and draw attention to the fact that this discourse draws on an historically contingent and fragile political rationality and to challenge its commonsensical appearance (Ball, Maguire, Braun, Perryman & Hoskins, 2012, p. 514).

The wider project is initiating an archive using digital media of contemporaneous and recent accounts including some group interviews analysed using narrative enquiry. Some of those involved in *Smile* mathematics, including those present during its inception, have been invited to participate in unstructured group conversations. Participants have been recruited through formal and informal mathematics education networks and by means of a snowball sampling process, with contacts proposing others who had a role in the project. They have been offered several questions in advance of the meeting which ask them to reflect upon: how they became involved in *Smile*; how they understood their role and responsibilities; the nature of authority and autonomy within *Smile*; and the links to other events of the time. The discussions are ongoing and involve between six and eight participants each, including the two main authors of this paper. They last around three hours and are audio recorded. These recordings will be transcribed, with initial narrative analysis shared with participants and with the wider mathematics education community. Participants are also encouraged to provide further personal commentaries and archive material.

As well as collecting this historical material, we are currently exploring these issues with a small number of recently qualified teachers. In this brief paper we work with one of them, Rosie, first to offer phenomenological insights into her experience of performativity and then to illustrate how she has been able to use the past, in this case *Smile* stories, to resist dominant, neo-liberal discourses

and to assert an alternative identity and set of practices in her classroom. We suggest that this account offers plausibility to our hopes for the project.

INTRODUCING ROSIE

Rosie had entered teaching through a two year post-graduate course in which the first year was spent studying mathematics at undergraduate level and the second on professional preparation for mathematics teaching. During her course, and as she was aware, Rosie was taught by a number of tutors who had themselves been *Smile* teachers who saw themselves as working within a mathematics pedagogy that valued autonomy, independence, personal authority and democracy. She later remarked,

you could see how their teaching styles matched up with those used in the resources.

In the first year, it was not uncommon for her tutors to take *Smile* resources as a starting point for mathematical investigation:

we ... found the activities engaging, and they prompted us to think about different ways that we could present mathematics to students that would help them understand it more fully.

This was built on in her second year when the *Smile* resources were often used in professional sessions about the teaching and learning of mathematics in secondary schools.

PERFORMATIVITY ...

Rosie works in a school which is perceived, and perceives itself, as high-performing and high "standards" and thus able to offer leadership to lower performing neighbouring schools, to be a link in the regulatory chain connecting neo-liberal government policies with the practices of individual teachers, and through them to their objectified students, and the individualised performance of both. In her first year as a newly qualified secondary mathematics teacher, as a prelude to some study at Masters level, Rosie was asked to write about performativity. The term "performativity" and the task immediately resonated with her.

Performativity is known to all teachers whether by name or not. Its influence taints all the day-to-day activities of teachers and subconsciously affects the way they view their role.

She highlighted the way in which demands of performativity absorb huge amounts of teacher time and energy, disciplining them through meticulous interaction with trifling data (Ball, Maguire, Braun, Perryman & Hoskins 2012, p. 523), and leaving them less of both time and energy with which to engage creatively in the moral and interpersonal endeavour of education.

The sheer amount of work involved causes a significant dilemma ... I have to sacrifice a huge amount of my time in order to do my job, [but] much of this is dedicated to monitoring performance and meeting targets, not improving the learning experience of my students.

Rosie experienced in very concrete terms that Foucauldian technology of the self in which the subject acts on herself in conformity with the neoliberal demands (Lemke, 2001, p. 203-4).

For me, the pressure to be an outstanding teacher is ever present. You are constantly being compared to others and the standards, but you are also constantly comparing yourself and judging how you are progressing. There have been occasions when I personally felt like I have been improving and doing a good job, but I still never feel like I am good enough.

The neoliberal subject is expected to be constantly remaking themselves and to be doing this autonomously - but the experience of constant surveillance and judgment gives the lie to this. Rosie wrote tellingly about this interplay of the judgment by self and the judgement of others.

Teachers now are responsible for making sure they are meeting the myriad of criteria to prove to others – and themselves – that they are a good teacher. Having to constantly prove themselves drives teachers to invest huge amounts of time and energy into their job. The feeling of being constantly judged by uncertain criteria heightens the stress levels. All together it leads to a teacher who constantly questions their own ability to do their job and faces a daily personal battle over doing a good job and getting swallowed up by their work. ... Teachers may have responsibility for their own performance but they have very little control over it and, if they are anything like me, feeling that you are constantly chasing a moving target and coming up short.

Rosie has a variety of strategies for resisting this neoliberal positioning. Here we explore the extent to which and in what ways, amongst these, she is able to use the excavated past and stories of *Smile* in particular as part of that resistance.

... AND RESISTANCE

We asked Rosie, now in her third year of teaching, to write to us about her experiences of *Smile* and the relationship of these, if any, to the discourses of performativity. We use this text here to identify three ways in which Rosie uses *Smile* stories in the complex process of shaping her sense of a professional self: teaching in ways that are important to her and 'against the grain' (Cochran-Smith, 1991); fostering a more democratic epistemology; and acknowledging collaborative teacher professionalism.

Teaching in ways that are important and 'against the grain'

It is very clear from Rosie's writing that she is able to use the *Smile* resources to resist the pressure of 'our new performativity culture of teaching by level and showing linear progress'. For example, she writes

The lessons we experienced at university really inspired me ... they showed me the excitement of discovery and how that can be incorporated into teaching ... They also showed me a new approach to teaching mathematics, one that is more involved and engaging than I had experienced as a learner before ... It is something that I keep in mind now as I plan for my own classes ... The *Smile* resources for me represent a huge ideas bank with examples of some great teaching practice ... I know that when I look through the activities I will find activities that will suit how I want to teach my students.

She is able to draw on her previous experiences of *Smile* to inform and develop her current practice, using questioning and ideas from the materials to inform her planning. She is able to use the ideas embedded in the resources to make the mathematics accessible to a wide range of students and to enrich their learning.

Fostering a more democratic epistemology

She values the resources because they give students access to meaning making in mathematics (which in turn, we note, promotes a more democratic epistemology rather than subjugation to 'personal fatalism ... servility ...[and] negative self-esteem' (Skovsmose, 1994, p. 189)).

A lot of the tasks are investigative and allow the students to discover relationships themselves, but all of them help foster deeper understanding of why things are happening ... I have a deep affection for [the *Smile* resources] because their complete focus on teaching for understanding is something that is really

important to me ... I can get [the students] to explore an area of mathematics themselves and discover something.

In Rosie's school, there is currently 'a very strange mix': teaching for understanding is encouraged yet 'testing and setting and the "best method"' are also relentlessly pursued. In the context of what Rosie describes as 'an uneasy truce', there are contradictory spaces within which she can teach more democratically.

Acknowledging collaborative teacher professionalism

It is also the case Rosie knows that the *Smile* resources were created *by* teachers rather than *for* them and that these teachers worked together and with a sense of professional authority; she is also able to use this knowledge to see her current experiences from outside the currently taken-for-granted in schooling.

I think of *Smile* with a mixture of fondness and sadness; it reminds me that there are ways to include more engaging and investigative work in our maths lessons, but it also highlights just how limiting our current curriculum and testing system is ... It saddens me to know that all that time ago, teachers figured that this is a good way to teach children mathematics and yet there is still no room for it in most schools. It does give me hope though, because I know that my teaching is better as a result of my knowledge of *Smile*.

Rosie is able to see these teachers as having 'a rationale for practice, [an] account of themselves in relationship to the meaningfulness of what they [did]' (Ball, 2003, p. 222) and thus available as offering an alternative identity to that of performing the neoliberal self.

DISCUSSION

There is a long tradition that asserts that it is *who the teacher is* rather than simply what she does or what she knows that fundamentally shapes the educational experience. The neoliberal project takes seriously the need to shape the 'soul' of the teacher, to bring about a change in how teachers experience their professional selves, to reform and regulate subjectivities so that teachers work intensively on the self and come to perform an individualised, enterprising identity (Ball, 2003). The moral landscape of autonomy and professional judgement, of trust and co-operation (Stronach, Corbin, McNamara, Stark, & Warne, 2002, p. 130) is undermined by the new ethic of performance where everyone must strive to be above average and indeed all must become outstanding.

We have no doubt of the productive power of the neoliberal discourse to colonise teacher identity, nor of the regime of truth which normalises that discourse. Teachers are surrounded by ever increasing demands upon their time and by 'meticulous, often minute, techniques' (Foucault, 1979, p. 139) of surveillance. Disciplinary coercion is exercised not directly but by requiring attention to minutiae, 'a political anatomy of detail' (Foucault, 1979, p. 139) with the ever present threat of "underperformance": 'the micro-disciplinary techniques of hierarchical observation, normalising judgements and examinations' (Hall & Noyes, 2009, p. 851) are used to classify, hierarchise and individualise. It is through such techniques and the micro self-surveillance they are designed to provoke that the desired teacher identity under neoliberalism is constructed. Foucault notes:

it is not that the beautiful totality of the individual is amputated, repressed, altered by our social order, it is rather that the individual is carefully fabricated in it according to a whole technique of forces and bodies. (1979, p. 217)

Nevertheless, it is remarkable the extent to which teachers are able to resist the 'combinatory and relentless effects' (Ball, Maguire, Braun, Perryman & Hoskins, 2012, p. 528) of the technology of performativity and the fabrication of neoliberal selves, as the account in this paper illustrates. Although based on the experiences of only one individual, we offer evidence in this paper that excavating the past for oppositional narratives can be a productive support for building teacher professional identities that challenge the current regimes of truth. We hope the account, and the research we will be undertaking more widely as part of the project, will prove to have catalytic validity (Lather, 1986, p. 78).

Thus, Rosie has kept in touch with her ex-*Smile* university tutors and is able to use the counter-hegemonic discourses in circulation to "re-story" her current experiences and her understanding of how things might be.

Such is the power of performativity that, even after three years on the job, I still find it hard to acknowledge even to myself that I am a good teacher. I still have to justify every decision I make by demonstrating that it has led to progress. I still have to sneak out of the house at 6am to make sure I get all the tests marked and data sent in on time before I teach that day ... But I am slowly learning to trust my own judgement, especially when deciding how to "present" mathematics to students. On those lessons where I do choose *Smile* inspired activities and I see the sense of achievement in students' faces as they connect key ideas together for themselves, I know how they feel. That's how *Smile* made me feel when I discovered how much fun learning maths can be.

In understanding these writings from Rosie, it is important to keep in mind that, not only was she sometimes herself taught mathematics using *Smile* resources; she also met people from the original collective. Her historical engagement with the project was thus personal and embodied. A major challenge for the current project is to find ways to use digital media to make available to a wider group of teachers similar possibilities for resistance to dominant discourses through the excavated history of *Smile*.

Nevertheless, at this very early stage in our project, these reflections from Rosie give us courage to continue. Different regimes of truth hold sway at different times and in different places (Hall & Noyes, 2009, p. 851). As with any dominant ideology, it is part of the neoliberal project to cut us adrift from our past and to de-historicise our lived experience of the present. Berger (2016) uses the metaphor of *no-fixed-abode* to capture the absence of a sense of history:

Any sense of history, linking past and future, has been marginalised if not eliminated. People are suffering a sense of historical loneliness. (p. 17)

It is the intention of our project, of which telling Rosie's re-storying is a part, to challenge the subordination the social (Giroux, 2015) and to use a small part of the history of mathematics education in England as a meeting place (Berger, 2016) from whence to understand, interrogate and oppose the dominant discourses currently shaping society.

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