VOICES IN THE SILENCE:

NARRATIVES OF DISADVANTAGE, SOCIAL CONTEXT AND SCHOOL MATHEMATICS IN POST-APARTHEID SOUTH AFRICA.

by

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ABSTRACT

Voices in the Silence is a critical exploration of the construction of disadvantage in school mathematics in social context. It provides a reflexive, narrative account of a pedagogic journey towards understanding the pedagogizing of difference in mathematics classrooms and its realizations as pedagogized disadvantage in and across diverse socio-political, economic, cultural, and pedagogic contexts.

The fieldwork mostly occurred within the Cape Province of South Africa, in schooling communities with socio-economic, cultural and historical differences. Research took the form of interviews, discussions and participant observation, in a recent post-apartheid context.

In resistance to perpetuating hierarchized, linear or scientistic approaches to research within traditional social sciences and mathematics education, I embrace an arts-based methodology. Through narrative, I engage with socio-political, cultural and pedagogic implications of the social construction of disadvantage in school mathematics discourse and practice. The dissertation, therefore, offers interdisciplinary approaches to critical concerns of inequity and access, calling on the emotive, spiritual, embodied, and personal domains of experience in problematizing the (re)production of disadvantage and certain socio-cultural practices that school mathematics supports.

The concept of *silence* is introduced to interrogate the interstitial/intertextu(r)al places of 'lack' and 'deficit', and competing ideological positions and discourses of power, which inform the pedagogic and lived realities of "disadvantage" in mathematics classrooms within different contexts. *Moments of articulation* within fieldwork define utterances and somatic performances embedded within narrative contexts and their attending discourses, and instigate investigation, deliberation and engagement in analyzing the multiple ways in which disadvantage takes root/route. These signpost where 'voices in the silence', in discourse, context, and the subjectivities they (re)produce, may be recognized, problematized and rearticulated through narrative.

This dissertation's major contribution is to open up spaces for dialogue with(in) silence through a reflexive narratizing. Ultimately, *Voices in the Silence* is an invitation to a dialogical pedagogic journey that seeks to provide roots/routes of engagement with the ideals of social justice and an egalitarian society. It attempts to find narrative moments within the difficult terrain of research work and lived experience where constructed and pedagogized disadvantage can be re-imagined and transformed into transcendent pedagogies of empowerment and hope.

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DEDICATION

This dissertation is lovingly dedicated to my husband, Terryl O'Donovan, and daughter, Grace O'Donovan, who have come alongside me all the way. Without their unfailing love, devotion and support, this pedagogic journey would not have been possible.

I lovingly thank my mother, Molly Swanson, née du Plooy, and father, Douglas Swanson, for all their love and encouragement, and for setting me on my life's journey.

This dissertation is also dedicated to the loving memory of friend Nongetheni Edith Tekani, and student Tebogo Edward Lebeko, whose spirits live with me and guide me still.

Finally, it is devoted to all my students across the world whose lives have blessed and enriched my own.

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I am gratefully indebted to the people of the communities in South Africa in which I engaged in fieldwork, who opened up their hearts to me and so sincerely shared their life stories. They generously offered help and support in whatever I needed, even in difficult and trying circumstances. I am deeply honoured to have been a part of their lives and am sincerely grateful that they have been a part of mine. I hope that through our shared humanity, this research project, and my life's work, I will be able to give back to them as they have given to me.

I thank all the friends and family members along the way who so generously offered accommodation and transport before I even asked, who provided us with practical help and support, and went out of their way to make our stay in South Africa comfortable and productive. I am grateful for their love and humanity.

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I thank the first group of students I interviewed all those years ago towards my Master's, whose alienating experiences in learning mathematics set me on my current research path in attempting to understand and provide meaningful interpretations of the relationship between socially constructed disadvantage and the disempowering way in which it becomes pedagogized in the (mathematics) classroom. I am truly indebted to them.

Last, but not least, I am grateful for the loyalty and love of our cat, Iddy-Biddy, (in name only), who has been my steadfast and devoted companion for more than a decade and across two continents. I am especially grateful to her for her companionship during the long hours of my research writing.

PREFACE

DISSERTATION STRUCTURE

This dissertation is comprised of four sections, represented by the quarters of a circle. These sections represent four phases of a cyclical journey, metaphorically represented by the four phases, or quarters, of the moon. This is also in keeping with a more 'circular', or 'elliptical', narrative-based approach synonymous with some African indigenous epistemologies.

Each *section/phase* begins with a preface, walking the reader through that phase of the journey. This provides the reader with some background as to what to expect. It is metaphorically similar to explanatory travel notes in a photograph album or an entry in a journal of an expedition.

PHASE ONE: AN INTRODUCTION relates to the process of deciding on travel, where and how to travel, what the traveler might be looking for, the obstacles she might expect to encounter, and the way of seeing (or not seeing) that the traveler might bring to bear on the way in which she embarks on her travels. This section walks the reader through the introductory phase.

> **SILENCE** sets the tone for the dissertation by introducing the metaphor and theme of silence for debate. This debate congregates around *silence* as it invests in the social construction of disadvantage and the way it may be lived out in relation to school mathematics discourse in different contexts. It also offers an interpretation of silence as living and operating within the interstices and intertextuality of discourses, agents, and ideologies of power within the social domain, and how this (re)produces disjunctures, paradoxes and dilemmas within fieldwork, research writing and lived experience. While it interrogates the many slippery forms and interpretations of silence, it provides it with metaphorical significance through the theoretical feature of voice.

PHASE TWO: THEORETICAL DISCUSSION AND CRITIQUE represents organizing the trip; making travel arrangements; packing for travel; deciding what to take, what is needed, and checking one's itinerary. It walks the reader through some theoretical discussions and critique of narrative. It lays out a framework and reference points to enable the reading traveler to proceed. It also unfolds the map of the journey, as planned and experienced.

> **THE TELLING OF TALES** provides a background on narrative inquiry and presents a critique on the advantages and disadvantages of narrative within an arts-based framework. It also offers reasons for my embracing of narrative for this research project.
>
> **UNFOLDING THE MAP** tells how the pedagogic journey unfolds; what to expect for the rest of the dissertation; some details on data collection and the research journey; and a brief map of the journey.

PHASE THREE: JOURNEY ACROSS CONTEXTS represents the ever-emergent state of travel and the research journey itself. It walks the reader through the actual physical and pedagogic journey through the 'telling of tales'. The four narratives describe the narrative intricacies of the research journey, but follow a chronology of writing, rather than the physical route. In this way, the pedagogic journey is fore-grounded.

> **STATES OF NATURE** is a reflexive account of a visit to a farm school in rural post-apartheid South Africa. It focuses on issues of normalization, localization, and proceduralism. It looks at the importance of context, prevailing ethos, and the political disjunctures between the local and global. Conservativism and white governmentality are problematised in how they create 'the normal'.

FISHES AND LOAVES addresses the philosophy of Africanisation, its incompatibility with the ideology of neoliberalism, how Africanisation can become subsumed within neo-liberalism, and how this plays out in a mathematics classroom in a context of 'poverty'. Issues of neo-colonialism, and how these inform poverty education and disempowerment within a mathematics education context, are at the fore.

ROOTS/ROUTES explores concepts of rootedness and routedness. It addresses notions of performance and rhyzomatic journeying as they inform research. It highlights dilemmas, disjunctures and paradoxes within mathematics education discourses and the mythologies produced, as informed by progressivism, neo-liberalism and globalisation. Contradictions in local and global contexts are manifest in lived experiences as sites of struggle between competing ideologies. This narrative weaves a critical and reflexive account of research moments as lived experience.

CULTURAL BEADS AND MATHEMATICAL A.I.D.S. explores critical issues in mathematics education and highlights further contradictions and dilemmas within different research contexts. It addresses issues of universalism, pedagogic contructivism, and progressivism in mathematics education, and how these are recontextualised in local contexts which contribute to the construction of disadvantage. In particular, progressive education rhetoric of 'relevance' in mathematics education is interrogated in terms of its recontextualisation across pedagogic contexts, and how it might facilitate pedagogic disempowerment rather than liberation.

PHASE FOUR: TOWARDS JOURNEY'S END; A RETURNING is an 'unpacking' phase. This is a time when photographs of memories are placed in an album, and reflective journal entries written. I walk the reader through the returning phase and through finding 'stopping places' to pause, reflect on proximities and distances to research relationships; to stand back; and to allow the voices of the journey to come together, to collide or coalesce in finding new meaning in the way they shape experience and create emergent identities. It is also a time to ponder and seek a new way ahead, perhaps embark on another post-travel journeying. This notion of *returning* is a double entendre in the dual senses of 'going back' and 'giving back'. There are three pieces. **VOICES OF SILENCE** is a poem describing the many voices of silence as they infuse themselves within research texts. **VOICES** explores disjunctures, paradoxes and ironies, bringing the voices from different research contexts into one coalescing text in examining how disadvantage is constructed and pedagogized within school mathematics. Lastly, **VOICES IN THE SILENCE** offers some closure and a re-opening.

Throughout the dissertation, FOOTNOTES and ENDNOTES appear. **FOOTNOTES** (referenced *alphabetically*) refer to shorter commentaries, explanations, translations, or definitions. **ENDNOTES** (referenced *numerically*) refer to more in-depth theoretical discussions and critiques, or offer some alternative perspectives to parallel/ divergent/ convergent discussions or routes to the pedagogic journey. While the footnotes and endnotes provide context and theoretical grounding, the narratives can stand alone.

There is a moon within a half circle of light.

Many choose not to see it.

They look upon the soft smooth arc,

the perfect curve,

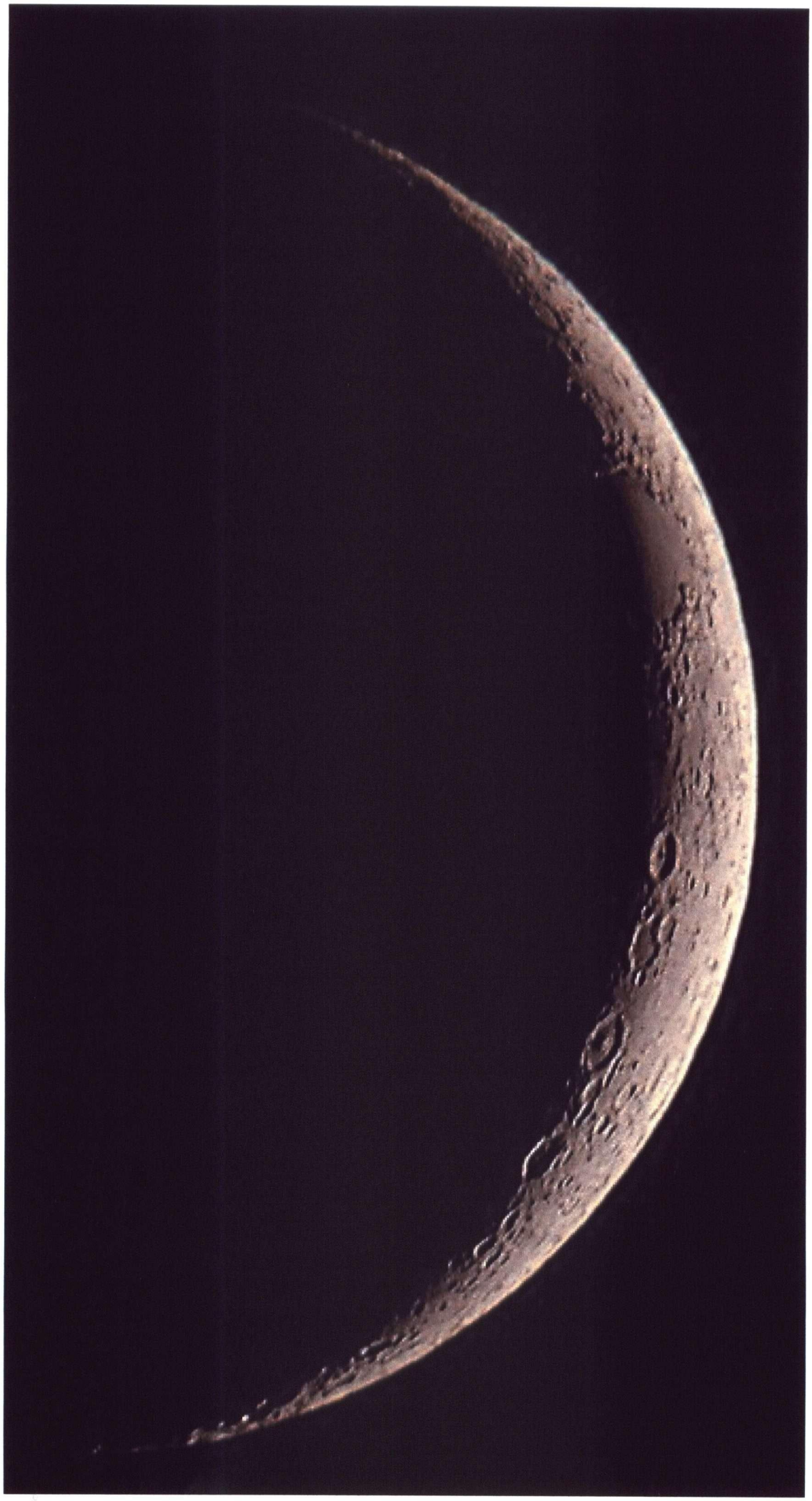
and see its boldness.

But there are shadows between us,

and a moon behind the arc we fear to see,

for we have not yet learned the paths beyond the spaces we create,

the contours of the unimagined.



I.

The silences within silence are very difficult to read... to 'know' that they exist in non-existence, and my mind starts to see the problem as a matrix of infinite 'cul de sacs'...I feel like I am being pulled into a vortex and then thrown out on some invisible 'other' side into a dead space of dreaded silence... Marika turns the book to the last page, but she has gone silent too.

I hear the sound of the paper as the page turns. There is a long pause and I notice that the wind has stilled outside. The smell of late afternoon, of cooling earth, seems to find its way through the door. Outside, I hear the horses, anticipating the time when they are to be fetched and taken home. There is a long whistle in the distance. I haven't heard that sound clip of a South African rural setting in so many years. The horses move again. One neighs. Marika gets up. Before she closes the book, I see a column of tiny diagrams of shapes and solids. On the right of each is 'the answer' or a space where the answer is left out or is unknown. A triangle has 'no answer'. Next to the square is the word 'skwar' which has been marked incorrect with a neat red cross. A circle has the word 'sirkel' next to it, and it too has been marked with a red cross. A cylinder has the word 'trapezium' next to it, correctly spelt, but it has not been marked. I wonder why? I wonder if there had been any discussion to separate out 'incorrect spelling' in English, from 'incorrect mathematical' concept.... But, I say nothing... I feel defeated!

Excerpt from: STATES OF NATURE: CREATING 'THE NORMAL' THROUGH A TALE OF A FARM SCHOOL

PHASE ONE: AN INTRODUCTION

The moon has fascinated human beings for millennia. It has always inspired awe and wonder. The moon has been the source of mythology, folklore and legends. It has evoked esoteric dreams; stimulated creative thought and inspired poetry. Moreover, the moon has been associated with changing moods, the psychic, the mystical, the ethereal, and the metaphysical. Acclaimed poet Percy Bysshe Shelley wrote of the moon, in *The Cloud.*

That orbed' maiden

With white fire laden

Whom mortals call the Moon.

I chose the moon as a metaphor for my research because of its continuously changing phases, which represent a cyclical pedagogic journey that is non-linear, ever emerging, and iterant. In continual orbit around the Earth, the moon is steadfast in its allegiance to it. Yet, it casts shadows, changes perspectives and blurs the imaginative with the real. The moon offers an ethereal light to night travelers by illuminating a path, but often confusing forms and making obstacles unclear. Similarly, a researcher can never be absolutely sure, only guided towards what she believes to be the way ahead. Making sense of the path depends on lunar changes in the forms of illumination.

The moon helps to connect two continents and two separate countries relevant to my research. When viewed from Africa and North America, the moon appears the same, despite the symbolic and the physical boundary of the ocean between them on whose

movement the moon constantly has influence. Despite or because of my own 'transnational' identity, my engagement in fieldwork in a South African context, and writing the research in a Canadian one, elucidates issues of distance and proximity and relations of power between different research contexts. Memory, the faculty which mythically the moon is said to influence, plays a part in both proximal and distal relationships found within the research texts. The interplay of the two informs the 'telling'. I am aware that I might have told different stories if I was writing them in South Africa about South Africa. I wonder if I have seen clearly, remembered well, seen it to be 'the same'; or whether I have been deluded by the lunar spell of something that promises effulgence, clarity, truth, reality. I know that alluring promise is not altogether true, but I have to continue my journey of searching nonetheless.

This phase marks the start of a long journey, with many obstacles, many paths, and many choices. It is here where I decide to embark on a life-enriching, pedagogic journey: where to go, what to do. This is the New Moon. It hangs like a sickle in the night sky. I cannot see clearly yet, but I know I must begin my preparation for travel. My eyes will adapt as I learn to see in the dark. In the dark my ears are more attuned to the silence(s). Perhaps, knowing this, I may see more. As the twentieth century American historian, Charles Austin Beard, so wisely said:

"When it is dark enough, you can see the stars."

SILENCE

Cromwell: But, Gentlemen of the Jury, there are many kinds of silence. Consider first the silence of a man when he is dead. Let us say we go into the room where he is lying; and let us say it is in the dead of night – there's nothing like darkness for sharpening the ear; and we listen. What do we hear? Silence. What does it betoken, this silence? Nothing. This is silence, pure and simple. But consider another case. Suppose I were to draw a dagger from my sleeve and make to kill the prisoner with it, and suppose their lordships there, instead of crying out for me to stop or crying out for help to stop me, maintained their silence. That *would* betoken! It would betoken a willingness that I should do it, and under the law they would be guilty with me. So silence can, according to circumstances, speak....

Because of this silence betokened – nay this silence was – not silence at all, but most eloquent denial.

More (*with some of the academic's impatience for a shoddy line of reasoning*): Not so, Mr. Secretary, the maxim is 'qui tacet consentire'. (*Turns to* COMMON MAN.) The maxim of the law is (*very carefully*) 'Silence Gives Consent'. If therefore, you wish to construe what my silence 'betokened', you must construe that I consented, not that I denied.

Thomas Cromwell and Sir Thomas More, at the trial of Thomas More, in Act II, *A Man for All Seasons*, by Robert Bolt (1960, pp. 91-92).

Silence haunts us....

Shrouded in secrets and false promises,

it immortalizes our mortality, so that we are but a wraith of our own potential.

Like ignis fatuus [A], it ignites the dark with spectral light, illusory and illusive;

hovering and flitting over the marshy ground of our consciousness,

playing tricks with our consciences,

misleading those who travel by the moon.

Silence lives in many places....

Caught in a tautological web, it resides where it is claimed absent.

An anti-place, it breathes meaning into the between-places,

and seeps insidiously through the fissures of our social frames.

It is ubiquitous....

Listen attentively! Listen *to*... listen *for* silence.

Failing to hear silence does not connote its nonexistence; failing to hear *is* silence itself.

Listen authentically! 'There's nothing like darkness for sharpening the ear...'

[A] Also known as will-o'-the-wisp, friar's lantern, or jack-o'-lantern, from Medieval Latin meaning 'foolish fire'. It is a pale flame or phosphorescence sometimes seen over swampy ground at night. It is believed to be due to the spontaneous combustion of methane or other hydrocarbons originating from organic matter. Often perceived as a mysterious or religious sign, it was reported in earlier times to have misled night travelers at their peril. It also means a person or thing that is elusive or allures and misleads.

Silence unseen hisses with meaning....

Covertly overt... overtly covert, it constructs without presence.

Silence is sonorous and grandiloquent, for it speaks with many voices...

Like the chimera that bites its tail,

it is that which it constitutes and by which it is constituted.

Paradoxically, silence devours voice as it is devoured by it.

It is both place and condition,

... both state of being and agent.

Silence inheres in the dilemmas that create / are created by disadvantage.

It invests in conundrum,

and manifests in contradiction.

It plays a duplicitous game of duality,

being both metaphorical and literal.

Be cognizant! Silence metamorphoses and masquerades as counter-narrative,

and like a multi-headed Hydra, replicates its many other selves.

It camouflages itself against the real,

confusing the principles of the ethical, the moral, and the just.

Schizophrenic in nature, as silence deludes itself, it also deludes others.
It blurs and confounds meaning, and invests in the power of language and thought through the maintenance of ignore-ance and the continuance of darkness and despair.
In dismissing complexity, silence submits to the singular and hegemonic.
But do not pity it, for it is its own hegemony, reproducing power dis/re-cursively.

Silence, as the fake, is the alluring discourse that takes the rhetorical place of truth....

In the initial excerpt from the acclaimed play, *A Man for All Seasons*, Robert Bolt draws attention to the themes of political expedience, corruption and duplicity through Cromwell and More's debate on the meaning of 'silence'.[1] This debate in the play ironically culminates in the political silencing and ultimate death of Thomas More. While Cromwell parsimoniously acknowledges that there are 'many kinds of silence', he cunningly forwards a persuasive argument on the nature of silence that would validate only *his* truth on it – silence as denial – for the sole purpose of misconstruing More's intentions. More than mere pontification, Cromwell's argument on the theme and nature of silence invests *in* the agency of silence so as *to* silence, affirming it as condition, agent and action.[2]

In *A Man for All Seasons*, although the metaphor of silence highlights the controversy around interpretations of More's professed 'inaction' on one level, (more particularly, with a deep sense of dramatic irony), it goes further to illuminate the many forces at play

that silence can 'betoken', such as those of expedience, deceit, deception and injustice, and how this is achieved in context. As the audience/ reader of the play is made privy to Cromwell's self-profiting intentions, the deluding characteristics of silence become evident in Cromwell's argumentation at More's trial. This silence is used to undermine truth as it imposes another. It misconstrues events and actions, and reconfigures the playing field of judicial and political process, making a mockery of justice itself. In this sense, it is attributed human vice, and consequently personified and given 'voice'. Here, 'silence can, according to circumstances, speak'... and, since it possesses profound agency, *it can speak of many things*[B] ... speaking articulately also of *what it does not say*...

In introducing the core theme of the critical relationship between socially constructed and pedagogized "disadvantage", in my research on sociological/socio-cultural/socio-political perspectives within mathematics education, I likewise introduce the concept of silence for debate. This debate informs concepts and lived realities of "disadvantage" in relation to mathematics classrooms across diverse contexts and within different 'communities of practice' (Lave and Wenger, 1991). These 'diverse contexts' may be pedagogic, socio-economic, political, geographic, or intersections of such textual positions. Like the characters Cromwell and More, I too interrogate the many slippery forms and interpretations of silence while simultaneously acknowledging its agency in selecting the

[B] The more common English expression is that 'silence speaks volumes'. From my perspective, it is not *how much* it can say that concerns me, as much as its capacity to mutate and embed itself in diverse contexts. However, the extent of silence and the difficulty in eradicating it in susceptible, vulnerable, subordinated or weakened places/texts/voices is also dangerous and troubling.

very interpretations that would, by definition, maintain its illusiveness and indeterminateness, while establishing its power.

Given much credence in post-modern thought, silence can be its own mask of the simplistic and essential, which hides its complexity and nuanced power with a cloak of many colours, vivid to some and yet opaque to all who would not recognize it for what it is. Without an attempt at translation or interpretation, silence carries the hegemony of 'universality', so that misinterpretations burgeon and misrepresentations proliferates forms.[3] Silence *invades* sites of struggle and disjunctures in discourses of power as it simultaneously *evades* accountability and definition.[4]

But silence also fragments meaning as much as it permits fertile moments to foster new thought, so that we are continuously caught off guard, neither able to contest or embrace it. Even as we begin to challenge its divisiveness and the many ways in which it is implicated in the construction of disadvantage, it shifts position, morphs into something else, and redefines the boundaries of discourses and barriers to meaning so as to escape detection and avoid conviction.[5]

Consequently, to *seek* silence in discourse and practice as manifest in the lived experiences within classrooms and communities of practice, as well as to reflexively engage with its recursive nature in the production of narratives on reality as encountered in the fieldwork/ research writing process, is to seek the *hiding places* of silence within

and between discourses, as well as to *listen* for it by becoming attuned to its multiple modes of operation.[6]

To begin to understand silence in more symbolic terms beyond a simplistic interpretation of it as 'the absence of sound', one needs to appreciate silence, as Cromwell averred in the play, in terms of *voice*. Even in this sense, silence is often reduced to 'voicelessness' in postmodern writing, and provided limited metaphorical power in the 'crises of representation' debate. In informing concerns regarding the hegemony of ideas in the reproduction of relations of power between the researcher and researched, insider and outsider, subjugated and subjugator, colonized and colonizer, silence is made to speak of positions that visually look like, or sound like, speaking or non-speaking voices. It is as if these are literal categories, much like the separations of one speaking/non-speaking body from another. In other words, voice corresponds with 'human units', as in a 'body of a voice', where the body is merely an empty or abstract entity representative of the voice itself. Little recognition is given to this limiting interpretation as an intralogical silence, by not considering voice as transcending bodies, identities, opinions, standpoints, positions and postures, and to do so in more relational, symbolic and contextual terms.[7]

A contemporary critique advanced against traditional/ positivist research, most especially in ethnographic areas of study within 'critical theory'[8], is that subaltern voices, or the voices of 'others', are not given sufficient representation or legitimacy within hegemonic contexts or against the dominance of master narratives. This critique is present in a proportion of the writing in critical/ reconstructionist (feminist) theory and is often heard

in remarks such as 'the voices of black women were not heard', or 'the voices of the oppressed/ colonized/ subjugated were not validated', or there was 'insufficient representation of voices of women of colour'.

I certainly *do not* deny the existing hegemonies in dominant discourses, the silences they create, or the urgent need to find alternative perspectives and contest the entrenched hegemonies through counter-narratives and decolonizing discourses in the interests of social justice. In fact, these very ideals are at the core of my own purposes in engaging in research of this nature. I consider my work to be critical in its scope, orientation and commitment, and my advocacy in advancing democratic ideals and addressing social injustice through my research and educational work is foremost and of utmost importance. Consequently, I believe that to leave the debate in these superficial 'equity of representation' terms is not to engage with it *sufficiently* critically, although unproblematic alignment with this point of advocacy is commonly assumed to represent a 'critical standpoint'.[9] In this sense, I offer a critical view of some assumptions within certain aspects of 'critical theory', towards transcendence of delimiting rhetoric and in the interests of facilitating greater democracy and dialogue in academic/ social science research work. I therefore advance a perspective on critical thought that interrogates assumptions *within* 'critical' discourse, intralogically, not only *outside* of it and *between* discourses, in the factional and relational senses.

I argue that a narrow conception of voice canalizes understandings of equity and power in terms of a kind of 'affirmative action' program that views correctives mechanistically and

quantitatively [10], as if the *number* of literal, subaltern voices (and its evenly distributed 'diverse' and 'colourful' array, in Western multicultural style) will *balance* the inequalities, create 'harmony'[11] and solve social problems. Rather than liberate, this advocacy aligns itself with a positivist, quantitative standpoint by invoking a pseudo-mathematical metaphor of 'equation as balance' to sustain its moral correctness. This is also often uncritically advocated without considering *context* as informing the nature, position, orientation, complexity, and even existence of the fulcrum (or multiple fulcrums) of such inequalities. This simplistic image of the 'equation as balance' offers 'liberation' without contesting the *structural/ ideological and material conditions* by which the inequities are established and maintained, thereby asserting false promises. Seldom is it considered that this standpoint may socially construct and establish, unproblematically, the very oppressions from which it claims to offer liberation.

More specifically, how do we know that we are hearing an authentic 'black woman's voice', for example? Is it because it corresponds with an apparently gendered 'black body' of the speaker, that Benston refers to as the "'blackened' shell of selfhood" (Benston, 1989, in Casey, 1993, p. 111)? Here, we can begin to understand the complexities of black women's experiences as having been "subsume(d) into a tractable sign" that "void(s) the possibility of meaning" within this 'blackened' shell, through the white gaze which homogenizes the experiences of 'the other' as "a mute, visible object" (Johnson, 1989, in Casey, 1993, ibid.). This begs the question: from whose perspective or in which context is the claim of a 'black' (or white, for that matter) voice or body to be made, being a somewhat arbitrary, contextually elaborated, social construction rather

than a reality? Do we never hear 'white power' or imperialism from that which would be deemed 'black voices', and how might we know this? How might we recognize the colonization of voice, and which contexts produce the power differentials for its production? What are the contextual features that provide the legitimate spaces for the elaboration of such performances? Are these unitized voices, universally the same, equally relational to all positions across diverse contexts? What claims can we/ are we permitted to make and by whom? Is there never external authorship within positions of oppression, even within counter-hegemonic voices? Who permits that we recognize this and defines the legitimizing parameters of appropriate critical discourse by regulating the criteria of 'criticalness'?

To engage with issues of silence and its manifestations in voice, I believe that critical theorists and others need to interrogate the discursive mechanisms of self-silencing, before we can make assertions about 'transcendence' or 'liberation'. In this sense, we need to be attuned to the silences within that which is purported to be 'pedagogies of democracy'. The 'equation as balance'[12] is one such image that requires careful deconstruction in terms of the ways in which it informs and delimits discourses on social equity and disadvantage. In this regard, Umberto Eco's (1979) words break the silence as they ring out as a powerful warning: "A democratic civilization will save itself only if it makes the language of the image a stimulus for critical reflection - not an invitation for hypnosis" (p. 33).

In consequence, it is not my interest to pepper my dissertation with a 'colourful' [13] array of diverse voices that correspond to the physical shells of bodies, as if this would grant the critical motivations behind my research automatic credibility, which is often advanced as a criterion for academic legitimacy within critical theory. Rather, I hope to raise the level of discourse so as to interrogate more deeply and widely the investment of silence in the construction of disadvantage and the way it may be lived out in relation to school mathematics discourse in different contexts, by viewing voice less literally, more metaphorically and somewhat more theoretically.[14]

Consequently, rather than focusing only on providing multiple examples of 'diverse voices' (as explicit utterances from interview transcripts) which mark out positions of subordination as 'silence', I have, instead, taken *moments of articulation* within my fieldwork. As such, utterances and somatic performances, embedded within narrative contexts and their attending discourses, have instigated investigation, deliberation and critical engagement in analyzing, at a more theoretical level, the many multiple ways in which disadvantage takes root/route. These moments of articulation signpost (Derrida, 2002) where 'voices in the silence', in discourse, context and the subjectivities they (re)produce, may be recognized, interrogated and rearticulated within a narrative writing approach.

These narratizing moments of articulation may have been epiphanies or identity-changing events, as they have sought to provide illuminations for me in the shadowy places of lived experiences and ordinariness.[15] The choices I made for their representation did not

arise out of frequency of occurrence or potential for generalizability. I viewed momentary events, even minutia, in the textual map of my research journey in terms of their potential to provide insight on broader, structural, ideological, embedded and connected discourses in which silence lay or operated.

Traditional criteria of validity, verification and generalizability were not my foremost concern, nor the emphases on frequency and consistency, criteria that were ever present for consideration in the relational sense to positions of hegemony within academic writing. I continuously deferred capturing 'reality' or 'truth', even as these criteria in themselves were not my research objectives. I have reflexively engaged with many of the tensions, contradictions, ambiguities and paradoxes lived out in my fieldwork experiences. I have attempted to illuminate the ethical dilemmas of choice as they have informed broader discourses and debates. I have tried to engage with the underlying, often hidden, ideological premises of articulations and actions to make visible the innate silences and their agency these inform. I have *not* tried to reconcile the controversial and inconclusive, harmonize discord, and obfuscate innate discrepancies and disjunctions within discourses and positions.[16]

In this sense, I have embraced difficult issues and unanswerable questions with rigour through personal, spiritual and theoretical engagement and a messy grappling.[17] I have consequently resisted the traditionalist approach to social science research that modulates content as it regulates form by claiming greater 'validity'[18], and access to reality and objective truth. I recognize that the hegemony of scientism in social science/qualitative

research work *in itself* (re)produces and maintains ideologically-premised silences through the institutional disciplining of the researcher/author as a means of self-silencing.[19]

Nevertheless, I cannot claim that the choices I have made, or the manner in which I have approached them, have not produced their own silences through the emphases and selectivities that are inevitable in the evocation of the narratives I have told.[20] Nor do I claim that I have been able to see/hear or validate them all in this rendition of my research journey.

Having said this, I also do not naïvely believe that greater validation is achieved through a "confessionalist" [21] approach, as much as I am aware that it cannot be claimed through the means of a traditional, objective one. Reflexivity might be more honest, and narrative may make constructed reality appear more profound and palpable, but neither necessarily achieves greater truth. Perhaps a tenuous and contingent validity can be conditionally achieved through candor, a dialogical approach, personal conviction, and how compellingly the narration might resonate with lived experience. However, I am again fully aware that 'resonance'[22] in itself does not imply truth, as truth is multiple, contingent and socially constructed, and 'resonance' may well act as a replica of the fake.[23] Importantly, my purpose is *not* to claim truth at all, but to provide insights into *recognizing* silence within mathematics education research and its contexts of practice, even as it avoids a set definition, and to open up opportunities for challenging it.

I am cautious of not unwittingly participating in the perpetuation of silence and inadvertently facilitating, rather than contesting, its dangerous social implications. In the interests of illuminating the many voices of... and in... silence, I therefore hope to elaborate a story of a research journey that does not, by default, create shadows within which silence may take root, ... either through, as in the Cromwell-More debate, 'tacit consent' or 'most eloquent denial', ... or, in fact, a conflation of both positions.

The major contribution this dissertation makes to the exploration of constructions of disadvantage, and their realizations across mathematics classroom contexts and communities of practice, is by opening up spaces for dialogue with(in) silence through a narrative journeying. It is a dangerous journey, toward a more democratic, egalitarian ideal of both citizenship and pedagogy. Nevertheless, it is a journey that I am compelled to undertake, guided only by the ethereal, but meaningful, lunar light of personal commitment, and social and spiritual conviction. For, to choose *not* to undertake such a dialogical journey is the greater silence. As Boal (1979) asserts:

> Dialogue is always dangerous, because it creates discontinuity between one thought and another, between two opinions, or two possibilities and between them infinitely installs itself; so that all opinions are possible, all thoughts permitted. When two cease to exist and only the Sole Absolute thought remains, creation becomes impossible. Dialogue is democracy. (p. xvii)

ENDNOTES

[1] While Bolt interrogates the meaning of 'silence' in the play, the work *itself* sets up traditional dichotomies and binaries reflecting Western/ Eurocentric thought. 'Silence as denial' is set against 'silence as consent', as if these exist unproblematically as natural antonyms without the need to raise further alternatives as possibilities. Further, the positivistic mindset, often attributed to Eurocentred thought, that asserts that neutrality and objectivity is possible, and even desirable, is present in Cromwell's gender-specific use of the metaphor of entering a room where there is a 'dead man'. Here, Cromwell interprets the lack of sound from the dead person as 'silence, pure and simple'. Yet, we know that this form of silence, in itself, is not 'pure and simple', but an ideologically-infused silence through rendering absent the contextual reasons for the death of the person. It is silence through lack of consideration of the elements for which the silence occurred. In this sense, the argument is the *blurring* (in post-structuralist lingo) of the two previously asserted dichotomies: it is 'silence as denial', through denying the interpretations for the silence of the dead man, and 'silence as consent', through participating in the positivist, reductionistic mindset prevalent in Eurocentric thought that would deny multiple, non-neutral interpretations of the silence of the dead man.

There is a further potential silence to consider here: the context of using an introductory excerpt of European literary text to expound on and analyze meanings of silence in a broader context, with the concomitant absence of other literary forms and styles which may reflect alternate, non-Eurocentric thought. This was a serious concern for me in the way this excerpt of *A Man for All Seasons* may 'set a Eurocentric tone' for my dissertation on 'constructions of disadvantage' through a gentrified opening narrative, and which I deliberated on for some time before deciding to use. Nevertheless, silence as a socio-historical phenomenon and human condition, has been present with us for eons and has shown its ghoulish face across genres and contexts, both temporal and spatial. Consequently, this specific excerpt of the classical play proves very useful in raising several powerful, critical issues, which are also contextually generalizable through the metaphor of silence. These critical issues relating to power and discourse are foundational in respect of the issues I wish to address in my dissertation, and I have qualified my use of the excerpt by problematizing and making visible the Eurocentric thought embedded in the established

arguments. These arguments, in themselves, attest to the existence of and contribute to the debate on the many, multiple, layered and embedded meanings of silence and their value-laden contexts of use.

[2] Cromwell achieves this by effecting polemical language and promulgating lies in the guise of truth, in the name of what 'silence betokens'. Contesting Cromwell's standpoint, More advances a counter interpretation of silence as *consent* rather than *denial*. However, More's intellectual prowess and spiritual convictions carry little clout within this context where he is placed in an invidious position and made the scapegoat of a dangerous political process. Consequently, More pays the price with his life. In a situated context where integrity and honour are a disadvantage, the manipulation of meanings and the use of rhetoric undermine the genuine and sincere through falsity and corruption.

[3] In a similar vein, Judith Butler (2000) draws attention to the importance of cultural translation in disrupting the hegemonies invested in universality. She notes:

> Without (cultural) translation, the very concept of universality cannot cross the linguistic borders it claims, in principle, to be able to cross. Or we might put it another way: without translation, the only way the assertion of universality can cross a border is through a colonial and expansionist logic. (p. 35)

Nevertheless, she also warns of the danger of appropriation in the act of translation, given the interests served in the relationship between agents and in the performance of the translation. In light of this warning, I note the agency of silence that finds root/route in the interstices and intertextu(r)ality of the medium and context of translation itself. [See also personal narrative on cultural translation, Swanson (2001)].

[4] As will be addressed in the narratives, silence invades our discourses of liberation as well, and is not only found within hegemonic discourses. An example is how mathematics education research has been accused of suffering from "internalism" (Skovsmose and Valero, 2001), where the interests of the research intentions of researchers in the field are most often not self-critiqued in terms of inherent assumptions that their principles are unproblematically aligned with those of democracy. Their silence on this matter acts to reinforce the assumption that there exists a harmonious relationship between mathematics education and democracy. [See also Swanson (in press b)].

[5] Silence does not necessarily inhere in discourse or between discourses in a static way, but is found also in the way in which discourse in one context is reconfigured or "recontextualized" (Bernstein, 2000; Dowling, 1998) in another. However, Bernstein (1973, 1993, 1995, 2000) in his theoretical tenets of "classification" and "framing" speaks of the "insulations" between discourses as "silences", which sets up a hierarchy in the "social division of labour of discourses" and which consequently invest in relations of power. As Bernstein avers: "it is the silence which carries the message of power" (p. 6) [See also Swanson (1998) for analysis on these Bernsteinian concepts].

[6] This multi-sensory attending relies on understanding agencies of silence as operating, acting or performing within the interstices and intertextualiy of mediums, discourses, agents, or texts. In this way, listening, feeling, and hearing, involves the intersubjective as well as intrasubjective qualities of attending to silence(s).

[7] These would be terms that would view voice as symbolic, metaphorical, metonymic, plural, discordant/resonant, communal, multiple-authored, absent authorship, misplaced, blurred and non-unitary, complex, emergent, disembodied, institutional, disciplinary, non-bounded, transcendent, evolving, augmented, indefinable, or as agent, to offer a few alternatives. (See also Gergen and Gergen, 2000, p. 1028-1029, on "multiple voicing").

Voice is connoted differently in different qualitative texts and in reference to different contexts. In certain cases "voice" carries more specific theoretical meanings whilst in other texts the meanings are blurred and multi-functional (see as example, Foster, 1994, p. 132). Michelle Fine (1994) challenges the lack of theoretical approach to voice in some post-modern research orientations. She sees this lack of theorizing as tantamount to obscuring the distances and proximities, and relations of power embedded in concepts and uses of voice. She discusses aspects of voice and voice strategies as a way of critiquing the "ventriloquism" found in much qualitative research. Consequently, Fine critiques the propensity of some researchers to claim that their research subjects "voices" are "unadulterated" as they *speak through* the research text, thereby disregarding the power dynamics of the "space" or context of the production of voice (pp. 19-23). These and similar issues have also forced re-consideration of the multiple roles of the researcher and her subjective positioning in the research context, the visibility and, consequently, the ethics of the power relations between researcher and researched, and what might or might not

be claimed as authentic or "simulacra" (Lather, 1994, p. 40). [See also Quantz and O'Connor (1988) for critical discussion on multivoicedness].

[8] Critical reflexive approaches to qualitative research have developed out of a need to contest the positivist tenets of traditional scientific discourse and the moral and ethical problems associated with objectifying, universalizing, essentializing and neutralizing discourses. Reflexive criticism rejects the standpoint of scientific objectivism in qualitative research methods. Simultaneously, critical and feminist approaches have been "openly ideological" (Lather, 1986) and have sought to "free individuals from sources of domination and oppression" (Anderson, 1989, p. 249), whilst attempting to provide a 'reliable' framework for accountability and evaluation of representational validity (see as examples, Lather 1986, 1994; Wolcott, 1990). They consider a more sensitive and complex account of the perspectives/stances of 'the Other' and the relational, exploitational and ethical difficulties this invokes. Critical reflexive ethnographic accounts tend to present a view of everyday social life as the engagement with local knowledges and situated accounts, and social and cultural meanings as instantiations within the negotiated terrain of qualitative inquiry (Geertz, 1983).

Critical/ feminist ethnography provides some alternative perspectives to positivist assumptions embedded in conventional scientific discourses and provides a reflexive methodology as a way of proceeding through the moral, political and ethical minefields of qualitative research. From this methodological position, alternative ways of viewing objectivity, validity, reliability and truth are proposed and more empowering perspectives on issues of representation, voice and identity are advocated. These perspectives allow for a more critical account of paradoxes, contradictions and shifting realities in the research field as well as the written text.

Critical ethnographers, however, differ in what makes their methodological approach 'critical', and they produce differing emphases of political consciousness, orientation, advocacy and analysis in order to situate their work within a critical and feminist theoretical paradigm (see, as some examples, Anderson, 1989; Carspecken 1999; Roman, 1993a, 1993b; Oakley 1981; Stacey, 1988). They often attempt to deflect criticism of value-orientation to their work by arguing that such research perspectives are no less value-laden than any other theoretical research tradition (whether positivist, post-modernist or otherwise), or that their value-orientation does not necessarily adversely affect their findings and cloud their research (see Carspecken, 1999). Some

critical feminist ethnographers argue that being 'up front' about their positions of advocacy provides their work with greater credibility than objectivist orientations which seek to hide the bias of their work and the researcher's own subjectivities. They argue that it also provides a better basis for moral and ethical review of critical and feminist ethnographic research (see the work of Lather, 1994, as an example). Whilst some argue that objectivity, truth and validity require being reconceptualized and propose that these concepts be viewed in terms of contingency and "multiple realities", many argue that 'truth', although partial and situated, is nevertheless tangible and possible, and critical epistemological accounts of findings and representations is necessary (see Carspecken, 1999; Haraway, 1991). Roman (2000) highlights some differences in approach:

> The term "critical" refers to many conflicting variants of ethnography, including those infused with the political and epistemological commitments of feminist, materialist, post-colonial, post-modern and/or queer political critiques of existing social relations and naturalistic conventions for doing ethnography. While these traditions may overlap with one another or be in productive tension in some way, they all share the rejection of value-neutrality in research. With the exception of relativist positions, some of which have been associated with specific forms/uses of postmodernism (and certainly not with every usage of it), many working within these critical traditions do not reject the possibility of some form of 'situated objectivity'. They distinguish situated objectivity from positivist and naturalistic quests for value-neutrality that they see as both methodologically impossible and politically untenable. (p.1)

[9] Naples (1997) draws attention to the dangerous dichotomizing and caging that takes place through classifications such as Insider and Outsider, locations that are ever-shifting and permeable in community contexts. She notes that Harding (1986) contributed to the 'representation' debate by identifying the work of what she called 'standpoint theorists' as 'standpoint epistemologies'. [See also Harding (1991)]. Naples (ibid.) argues that many theorists have problematized this positioning, including Dorothy Smith (1992), as a limited classification, which does not assist in decodifying knowledge and whose premise presents arbitrary barriers imposed by 'Insiders' and 'Outsiders' doctrines.

[10] Theodore Porter (1995), historian of science, argues that the ever growing authority and prestige of quantitative methods in the natural and social sciences and public life, is associated with the pursuit of objectivity, understood as impersonal knowledge, but which attempts to recruit a consensual *trust in numbers* as solutions to political and social problems. In this sense, numbers and the emphasis on quantification in interpretations and decision-making, carry a symbolic

authority beyond themselves. The trust and authority placed in number therefore has strong moral and ethical implications.

[11] The assumption that a numerically-informed 'balance' creates harmony, is a very dangerous one, most especially as it rests on a simplistic ideology of *scientistic naturalism*. This is premised on the understanding that conflict is part of a natural cycle of life, and that harmony is achieved by finding the right balance. Unfortunately here, the concept of balance does not exceed its numerical, or algebraic, features, leaving the structural, embedded, spiritual and contextual features for which it may be associated unattended.

[12] Further, the 'equation as balance' metaphor for establishing social equity is dangerous in the sense of the ideological premise of commodification of voice it necessitates. The condition of balance and harmony symbolically represented by the 'equal sign' infers *relations of exchange*, where the voice of the 'other' is packaged, codified and commodified as 'other' in the context of the 'equation', in exchange for participation in the domain of practice, neutralizing the context of its production concomitantly. This is despite McCarthy and Crichlow's (1993) warning that: "racial identities can never be gathered up in one place as a final cultural property" (p. xiii). Consequently, according to this prevailing neo-liberal philosophy, the 'equal sign' represents the place, fulcrum or point at which the exchange takes place, much like the algebraic processes in solving an equation, or where 'supply' meets 'demand', achieving 'balance' or 'optimum' conditions within capitalist relations of production. Hence, once the transaction of symbolic exchange has been completed, 'equality' is thought to prevail and the social injustice 'rectified'. *Context* is consequently deferred or dismissed as informing the production of social injustice. [See Ensor (1991) for further critique of social 'balance' in the mathematics classroom].

This concept of relations of exchange embedded within a capitalist mode of production is concomitant, to some degree, with the notions of "cultural capital", "social capital" or "symbolic capital", (see Bourdieu and Wacquant, 1992). Here, Bourdieu describes symbolic capital as that:

> which is the form that one or another of these species (economic capital, social capital, or cultural capital) takes when it is grasped through categories of perception that recognize its specific logic or, if you prefer, misrecognize the arbitrariness of its possession and accumulation. (p. 119)

The arbitrariness of the position or existence of the 'equal sign' in the relationship I describe, testifies to the symbolic nature of its capital relations.

[13] Even as I refer to a "'colourful' array of diverse voices", I am reminded that "white is a color" as Roman (1993b, p. 71) correctly avers. In this sense, even without infusing the voices of 'others' into my dissertation, it would nevertheless still be 'colour-full' in the sense of the neutrality/whiteness of absence. Roman reminds us that the expression, 'people of color', is an ambivalent and oxymoronic phrase, and that it "still implies that white culture is the *hidden norm* against which all other racially subordinate groups "so-called 'differences' are measured." (p. 71). It infers that being White is 'colourless' and "hence without racial subjectivities, interests, and privileges" (ibid.). "Within certain contexts," she continues, "the phrase can convey the mistaken idea that racially subordinated groups are essential subjects of a single experience or system of racism" (ibid). [See also Frankenberg (1993) on the social construction of whiteness].

[14] Dowling and Bernstein have, for example, different theoretical positions on the concept of 'voice'. Bernstein uses voice to refer to strength of classification, as in the 'voice of the academy', or the 'voice of mathematics', (see Bernstein, 2000). Dowling (1998), however, uses voice as a textual production of a subject position, as in, for example, 'the voice of students constructed as "slow learners" ', referring to subordinate positioning with respect to more dominant positions. Throughout my dissertation, where I make use of the term drawing on the theoretical positions of either Bernstein or Dowling, it is framed in context. In other words, the context dictates the appropriate use of the term.

[15] In this sense, a reflexive engagement with the quotidian and taken-for-granted is vital to such an analysis through personal immersion in the lives of the people of the communities I researched within. Commitment to this reflexive engagement is achieved via self-inscription through the descriptive, representational writing process and attending to the prevailing relations of power within shifting social contexts.

[16] I have chosen not to avoid contradictions and dilemmas, harmonize discord and obfuscate difficulties and disjunctures in the interests of submitting to a pre-authored, social science orthodoxy – one that produces a distanced, orderly and seamless theoretical exposition, and crisp closure. In this sense, I am reminded of the comment by Fine, Weis, Weseen and Wong (2000):

> In the social sciences, both historically and currently, the relationship between researcher and subject has been 'obscured in social science texts, protecting privilege, securing distance, and laminating the contradictions' (Fine, 1994, p. 72). (p. 108)

[17] I have chosen to engage with difficult and unanswerable questions through a messy grappling, rather than through a positivistic, linear, detached reporting.

Charmaz and Mitchell (1997) describe voice as the *animus* of storytelling, "not the content of stories but the ways authors present themselves within them" (p. 193). In this sense, they debunk the myth of silent authorship. Nevertheless, they point to the absence of authorial voice in social science writing in terms of the disciplinary pressures to conform:

> Method bequeaths meaning. Disciplines encourage this camouflage of the author's uncertain voice and sometimes require it. If subjects act in unexpected ways and authors insist on sharing their befuddlements in language that affronts positivist sensibilities with excessive subjectivity or offends post-modernists with political impropriety, peer review and rebuttal provide ample opportunities to bring errant authors back on course. The author's voice is modulated and muffled until indistinguishable from the metanarrative chorus of the discipline. The flight from ambiguity is joined. (p. 212)

[18] Concerns regarding representation, force it beyond the terrain of traditional science which draws on a 'regime of truth' and authorizes the research position which permits the researcher to hide behind the 'mask of methodology'. Such concerns have served to foster challenging ethnographic discourses which disrupt previously-accepted institutional claims to validity, reliability and generalizability, and to demythologize the "god-trick of seeing everything from nowhere" (Haraway, 1991, p.189). [See as examples of alternative views on 'validity': Lather, 1986, for "catalytic validity"; Lather, 1994, for "validity of transgression", and Denzin, 1989, on "triangulation"; and Wolcott, 1990, on "seeking and rejecting" validity.]

[19] Often, this is subtly achieved through creating 'discomfort' or 'self-doubt' for the writer around issues of presentation and form, thereby regulating what is considered by a jury of social scientists as legitimate or inappropriate, and by evoking "disciplinary" and "discursive anxiety" (Michalowski, 1997, p.48).

[20] I acknowledge that the evocation and reproduction of silence is inevitable in all discourses, albeit that it may modulate its form, diminish, or grow as discourse is recontextualized. Making it more visible and attempting to contest it where it can be seen, would be the preferred approach,

as opposed to its denial, which is often established in traditional 'objective' social science research.

[21] Kinchloe and McLaren (2000) refer to this approach as a kind of ethnocentrism, found within "confessional modes of ethnographic writing" which seek to avoid the objectification of the Other by attempting to align research objectives with those of the "participants" lived experiences, thereby collapsing the distinctions between them, (in other words - not 'coming clean' at the "hyphen" of the Self-Other (Lather, 1994)) and claiming joint authorship. Kinchloe and McLaren (2000) say that: "there is a risk that uncovering colonial and postcolonial structures of domination may, in fact, unintentionally validate and consolidate such structures as well as reassert liberal values through a type of covert ethnocentrism" (p. 297). This needs to be considered in developing more reflexive approaches to ethnographic writing.

[22] The problematic nature of 'resonance' applies equally to the concept of 'authenticity', for claiming validation or truth.

[23] This begs the question: What is the truth and what is the fake? This question may not be answerable, as distinction between the two would assert the assumption that truth exists. Nevertheless, I assert that the fake is that which is disguised as truth, even if that truth is merely an arbitrary analytical category and does not exist, or that the truth is socially constructed. The fake may also, then, be a simulacrum of something which cannot exist.

Within the sunken recesses of an imposing indigenous landscape, there is a place which breaks through the integument of a magenta-soiled Body-Earth. It is an eclectic montage of corrugated iron and hardboard, splitting the brush strokes of nature to expose its grit and bone... it is the skull of my country, its lived and unlived moments, bearing the teeth marks of a protracted history of Oppression, a peopled past-place of pain and Struggle.

At night the fires glow with an inward life through the indigo shapes of makeshift-shacks and fibrous brush, and the sounds of Africa are borne in choral cadences on capricious winds that sweep this rugged peninsula. The messages of disparate voices are lost in gusts of incoherence, and I can hear, with certain clarity, ONLY the force of the silences. I look into this palpable organ of a people's hope, ... but I feel also its dark disappointments.

It is from this place, this informal settlement, that the children come... and they walk many a mile to a community missionary school, (which I will call) 'Visserman's Baai Laer' (Fisherman's Bay Elementary). Perhaps, they come in the hopes of some divine miracle that one-day they might be able, through their education, to rise above the material and historical conditions of socially-engineered "poverty", beyond the land-locked, community-locked localities of established "disadvantage" frozen in time? Or perhaps they come because this school represents for them a place of "belonging", a self-reproducing demarcation of a "disadvantaged community". Perhaps it is a retreat where all children "are equal in poverty", a "protected" place in which they may assert the wealth of their humanity, divorced, momentarily and contradictorily, from the outside conditions of a world which "others" them and holds them to their prescribed spaces of "deficit" and "disadvantage".

Excerpt from: FISHES AND LOAVES: A PARABLE OF "FAILURE"

PHASE TWO: THEORETICAL DISCUSSIONS AND CRITIQUE

Metaphorically, this is the packing phase of the pedagogical journey. There is the excitement of anticipation when checking the itinerary, packing and repacking luggage, deciding what to take and what to leave behind. This is the preparation phase; making sure all is ready. The task seems slightly easier now that the moon is waxing. There is half-light to work by...

The theoretical discussions and critique serve as a grounding for the research narratives; a preparation for travel. They lay out a framework and provide reference points to enable the reading traveler to proceed. Here too, I unfold the map of the journey, as planned and experienced. Just as this phase is one of an imminent journey, so symbolically this section represents 'a writing towards narrative'. Even as the narrative traveler is *always-already-narratizing*, so she is interpellated, in the Althusserian (1971) sense, into a new subjectivity. This subject positioning is a recruitment from one of *experiencing narrative* to *experiencing-narrative-as-writing*. In this sense, narrativity expresses its own temporality and its always-already-development *towards* narrative and ever-greater-engagement with narrative as written-and-experienced. In this way, narrativity is not a static state, but a continuous way of knowing and becoming. Fragmentation and growth are necessary constituents of learning, so that the pedagogic journey is not mono-tone and 'seamless', but always encountering obstacles, overcoming challenges, changing forms through greater illumination and an emergent process of coming to be. This is evident in the changes of writing style and tone. My intention is to show growth in the pedagogic journey. So, I move on... Soon, there will be a gibbous moon.

THE TELLING OF TALES

We do not really mean, we do not really mean, that what we are going to say is true.

These are the words with which the Ashanti (African) storytellers begin their stories.

We need all our words to tell the whole story. And, in the end, we can only stand upon our stories.

Charmaz and Mitchell (1997, p. 212)

"Are you telling tales, Dalene?" Her voice boomed out across the classroom, reverberating against the walls and window frames before disappearing into them with a small shudder, as if it belonged there, albeit uncomfortably, embedding itself into the textu(r)al map of the everyday rituals of classroom life. It was more than a mere question. It was telling its own story about the way things 'are' and 'are meant to be'. It was about surveillance, discipline and punishment, and it was about the construction of criminality. It called on the codes of legitimacy that preceded and informed the context, and the personal cost of transgressing those codes. They demanded policing the actions of the 'insubordinate', maintaining their oppression, acting in the interests of Christian National Education (CNE)[1]. Purportedly, this was intended to 'serve our children' and engender consensual attitudes towards a Calvinistic worldview and respect for nationhood, to achieve the ends of an ideology of totalitarianism.

"I did it, miss." I could feel the eyes of my classmates upon me; stunned by my courage to admit to a transgression that I had not enacted so as to aid another, transfixed with fear for their own safety in this recognizably, inescapable situation, while simultaneously being relieved that they were not in my position. One young boy looked down, unable to lift his eyes from the ground, battling back tears for not being able to have the courage to own up to his 'misdemeanor', apoplectic with personal fear. It was the kind of fear that gripped him on a daily basis, but which he, or no-one else for that matter, could ever get used to – real, lived, physical terror!

"I am getting irritated with this," she stated emphatically, forcing a sigh as she postured a threatening stance, her hands on her hips. "I repeat the question, Dalene. Was it really you who did it, or are you telling tales to cover up for your classmate?" I was eight years old, and this was the voice of my classroom teacher; the person purportedly responsible for my educational development, and physical and psychological well-being. Her eyes bore down on me, searching for clues from my embodied reactions, reaching voyeuristically behind the shield of my private self. Her physical bulk imposed on my personal space, attempting to intimidate me into submission and confession. She was so close that I could smell the staleness of her breath. I did not wince. I watched without reaction as her mouth turned to a grimace. A bead of sweat glistened on the hairs of her upper lip. I knew she was uncomfortable with my admission of guilt. For a moment, I had some advantage over her, as she was caught off guard, hesitant of what to do in this unusual situation. A seam had unraveled, momentarily, in her cloak of omnipotent power. This wasn't going by the book.... "I did it, miss," I repeated, showing no emotion. I was not going to give them the pleasure of smelling my fear.

In my own small world of primary (elementary) school life, I had watched how certain children, unable to conform, had fallen victim to the 'educational' system and its brutal, militaristic methods of control. I had seen the relentless victimizing of these children, and how they were held up as a 'criminal' example, through perpetual punishment, of the consequences of transgressive behaviours. In the case of this heavily-labeled young boy, there wasn't a day that went by without his being physically 'disciplined'; bullied and victimized in one way or another by some school administrator - whether 'teacher' or

school principal – adults who, ironically, were supposed to be responsible for the boy's safety, or at least, that is what their roles implied. In those days in the late 60s, in this regional context of (Gauteng, then Transvaal province), South Africa, like many places elsewhere in the world, albeit to differing degrees, corporal punishment in schools was ubiquitous. It became the default method of enforcing obedience and compliance while ensuring that no deviation from the norm was condoned.

I am not sure why I did it. Perhaps to stand up to the blatant injustice in the only way I knew - just for this one trifling moment; perhaps as a blind act of kindness; but certainly because I could not endure the sound of the thick wooden rod on the *same* flesh, day after day, for one more time. I would bare the brunt of another's action for this day as long as, just for now, I did not have to hear that sound on another victim's flesh and feel it so deeply, like a knife in my inner core. The physical, sharp sting on my own, open, upturned hand could not be as bad as that sonorously-induced, visceral, wounding pain that reached to your very soul....

"Somehow, I find this very suspicious." She turns with a vindictive smirk to the young boy with lowered eyes. "Somehow, I think I know who the *real* culprit is," she says, assuming an air of arrogant righteousness. But unable to prove her assertions, and needing to mete out punishment anyway to maintain her illusive sense of 'authority', she turns to me with a face reflecting nothing more than petty pleasure: "Well, if you are such a *fool* that you are going to take the brunt of a misdemeanor you didn't commit, then you *deserve* the punishment. Hold out your hand!"... Ironically however, as the punitive

instrument came in contact with my flesh, it was not the violent sting that caused the pang of pain, but the realization as I saw the young boy's body convulse on each beating, that I had done this act out of selfishness, rather than kindness as I had originally presumed. Even though I would not have been able to articulate it then, I knew in my heart that I had *transferred* the deep visceral and spiritual pain that someone experiences in 'looking on' while another is being victimized, to the young boy instead. I had not helped him at all! I had given him my inner pain of sound-silence, and, even worse, I had created guilt and stolen his dignity.

Despite the many claims to narrative as a relatively 'new' alternative methodology (although now well established) in social science research of a qualitative nature, narrative is rooted in social and personal history. Across cultures, geographic places and temporal spaces of human development, 'story' has been the mode of meaning-making for humans in social relation with each other and their environment for eons. Originally, and still effectively, rendered in its oral form in many contexts, it has provided the linguistic and interpretive basis of the social condition, through description of social realities, whether grand or ordinary, and in human beings experience of those realities as lived. Narrative is the performative expression of those experiences in the act of creating identity and defining, or attempting to define, what it means to be human, and what it means to know. Further, it gives dignity and value to narrative experiences through their expression, making them sacred, while transcending the material and transforming it onto the imaginative realm without separation from its material and (inter)textual rootedness.

Often considered as a contribution of 'indigenous knowledge' to the academic field, narrative in contemporary academia represents the symbolic and political act of resistance to the decontextualized, abstract, dispassionate modes of discourse embraced and reified by scientific rationalism and the movement which produced positivist methodologies of academic research. Nevertheless, even though narrative is now well accepted in the international qualitative research arena, within some postmodern writings, contention occasionally still exists around the 'validity' of academic representation outside of prescribed norms. Narrativity offers the possibility of flagrantly resisting formulation, and concerns itself with the *human condition as lived and (re)imagined* as its primary focus. It embraces creative textural forms that produce pluralized meanings and it breathes life and feeling into storied human experiences. Potentially, it desists from serving the interests of both positivist/ modernist and some post-modern orientations that would concern themselves with empiricist tenets of justification, 'truth' and form, above evocation, empathy, illumination, self-understanding, resonance, and the revisioning of ways of being and living in the world.

Within a post-modern/post-colonial framework, where critical ethnographic and feminist discourses, amongst others, emphasize the subjective, relational and material position of the ethnographer/ writer/ researcher, in the construction of story, the central concerns of narrative, where it is endorsed, are about perspective, representation and interpretation. The locus of control for its validation and 'truth' is internal to narrative's form and does not rely on external exigencies that would commit it to normative dictates and delimit the

possibilities and provocative power of its self-held, but situationally-invoked, meanings. In this sense, narrative holds its quality and effect in its 'telling' and in the manner and form of its construction and delivery within a legitimating context.[2] Narrative permits nuance, contingency, paralogism and ambiguity. It permits the sensate, spiritual, mythological and emotional domains of human experience, while valuing the aesthetic, literary/ oral, intuitive and interpretive dimensions that would honour lived experiences and explanations of the human condition.

Narrative's advantage in opening up possibilities for (re)envisioning future society within democratic, egalitarian and social justice ideals is clear to those who advance its cause, and who live out those possibilities through narrative writing and engagement as a means of 'becoming' through 'learning to become' as a narrative journeying. Through literary and poetic device and the emotive power of narrative, critical concerns can be embraced, and provoke a range of emotional and intellectual sensibilities towards inspiring and enabling critical thought, social awareness, spiritual responsiveness and personal growth. Conle (2003) states that the use of narrative relies on "powerful cultural functions of narrative... Stories open possibilities to our imagination. The quality of those possibilities is vital to the quality of our future. A person without access to certain stories is a person without hope, without social vision" (p. 4).

Beyond textual analysis, narrative can have a teleological quality (Kermode, 1967, in Conle, 2003, p. 5) that raises the debate on whether the narrative text contributes to broadening the specific field of inquiry in the traditional academic sense. More than

enlarging our scope of content knowledge, it possesses the potential to invoke a dialogical relationship between the field(s) of inquiry and the human experiences informed by it and which it informs. Narrative does so through discursive, embodied and spiritual engagement, embracing the situatedness of narrative experiences in ways which do *not* avoid the dilemmas, contradictions, paradoxes and ambiguities of research experiences, or represent them in a detached, unemotional and objective/objectifying manner.

Instead, it provides the opportunity, through the meandering, landscaped and reticular nature of its form, to create a webbed connectedness between the research and the complexities of experience that inform the research stories. Narrative inquiry contributes to the hybridity of meanings in consonance with the value and dignity that such meanings might contribute back to the humans who lived, or who might still be living out, those experiences.

These possibilities might only be judged to exist as worthy criteria for evaluation of the social, personal and academic contributions they potentially make through the sensitive, respectful, and compelling manner in which the narrative is rendered in consonance with the personal commitment, insights, perception and motivations of the teller(s) of the tale. These possibilities, however, are subjectively informed by the evocative quality and resonance of the stories, as well as the reciprocal responsibilities they infer to the research communities. They might tell more about the author(s), their location and self-journey(s), than the characters or plot.

As an epistemology [3], Butt, Raymond and Yamagishi (1987) claim that narrative inquiry has "integrative, synergistic, and emancipatory potential" (p. 88). The integrative and synergistic potential is clear and refers not only to the multiple articulations of ways of expressing and experiencing lived realities, but the many opportunities to blend and infuse multiple domains of practice and perspective. These include formal academic disciplines such as philosophy, sociology, psychology, literary studies, amongst others.

I am, however, wary of claims to emancipatory pedagogies that set up dangerous ideological commitments to utopianism and which leave unaddressed and materially unchanged the rooted, structural and enacted conditions by which social injustice becomes entrenched. Narratives in themselves cannot liberate communities without their being connected to further, collaborated activism and political action. The assumption that they can, reflects a naïve and privileged position. Further, those on the ground are often living within constraining circumstances and are not in a luxuried or enabling position to read or address the narratives whose interests they claim to serve. The audience for such narratives is often not the constituency to which the potential empowerment is intended, or might not be the kind of audience which is materially able or, perhaps, even willing to engage in what might be perceived as 'researcher-initiated', albeit collaborative, transformative pedagogies at grass roots level.

Academic researchers and narrative writers need to be careful about making claims to emancipation through research writing in itself, although it may well *lead* to

emancipatory possibilities. These possibilities are worthy research objectives and academic goals in themselves, nonetheless. The ethical responsibility, however, for reciprocity between the researcher and research community/participants remains with the researcher in this regard, and lies beyond the ethical requirements of the research institution and the final textual research product.

Narrative opens up a space for addressing responsibly the moral, political and ethical paradoxes and dilemmas of the human experience through embracing pluralized perspectives in ways which give meaning and form to those experiences as lived. Such space encourages other envisioned possibilities of lived realities as a facultative act; one which empowers if not compels humans to engage autonomously in action towards personal and collective liberation. By emphasizing lived experience, narrative can *utilize the commonplace* to *challenge the commonplace*. In this sense, the reader/audience is invited into conversation with narrative as a life-enriching journey, so that dialogical avenues are opened up at various levels and between participants as co-narrators/ co-constructors, each having a responsibility and stake in the narrative process. In support of this, Ellis and Bochner (2000) state:

> The narrative rises or falls on its capacity to provoke readers to broaden their horizons, reflect critically on their own experience, enter empathetically into worlds of experience different from their own, and actively engage in dialogue regarding the social and moral implications of different perspectives and standpoints encountered. Invited to take the story in and use it for themselves, readers become coperformers, examining themselves through the evocative power of the narrative text. (p. 748)

Narrative's relationship to curriculum and education provides the opportunity for addressing a range of socio-political and economic, environmental and cultural concerns through privileging different emphases on multiple 'p's' from "personal, postmodern, postcolonial, performative, pedagogical, and poetic perspectives" (Leggo, 1997, p.1), and through educators/researchers living or "lingering in the spaces" between curriculum[4] and narrative (Aoki in Leggo, 1997, p. 1). These liminal "spaces" are, however, not disconnects, but avenues of advantage for the reciprocity between educational discourse and practice and the many forms of narrative that provide credence to and embrace educational experiences. Graham (1993), in expounding on the nature of education, clarifies its connections with personal experience through narrative:

> Education is at once a narrative and political enterprise and ... the more we know about narrative and its many forms, the more we will also come to know about the storied nature of the politics of personal experience. (p. 36)

From this viewpoint, education and educational research can be interpreted as the construction, deconstruction and reconstruction of personal and social theories, emphasizing that we are all characters and storytellers in our own and others' life-stories (Connelly and Clandinin, 1990, p.2). Further, it presents a powerfully visible argument against "neutrality" in research methodologies, by recognizing that story is about the nature of interrelated and interdependent events (plot), in relation to place, situational context, and time (setting), both for the characters as well as the story-teller, and that story makes relative the elements of its construction.

Narrative or narrative inquiry is a form of arts-based research with a specifically, although not exclusively, narrative focus. It is a form of qualitative educational research whose commitment to the arts, most especially literary arts, as a medium, interpretive tool, and philosophical and aesthetic orientation is foremost in research praxis. Barone and Eisner (1997) define what it means to say that an approach to educational research is arts-based, in the terms:

> Arts-based research is defined by the presence of certain aesthetic qualities or design elements that infuse the inquiry and its writing. Although these aesthetic elements are in evidence to some degree in all educational research activity, the more pronounced they are, the more the research may be characterized as arts based. (p. 73)

It is interesting to see how Barone and Eisner avoid classifying it in definitive terms, but speak of it more in terms of an orientation and focus to research. They describe seven features of arts-based educational inquiry: the creation of a virtual reality; the presence of ambiguity; the use of expressive language; the use of contextualized and vernacular language; the promotion of empathy; personal signature of the researcher/writer; and the presence of aesthetic form.

These features lie at the heart, in all senses of the word, of my own research and writing in both commitment and form. In this sense, I can say that I have approached my research, most especially its representation, within an arts-based framework with an emphasis on narrative. I have drawn on different literary sources, (South African and otherwise), literary styles and poetic forms infused within narrative, so as to *blur genres* (Geertz, 1988), create *indeterminacy*, a literary text which exhibits a state of being

indefinite and non-declarative (Maitre, 1983), and incorporate *novelness* within my research writing, which is conceived as the type of writing that inspires some readers to enter into a dialogue with it (Bakhtin, 1981). The genre-blurring, indeterminate and dialogical features of the writing are crucial to the multi-focal/multi-vocal commitment of my research work, and to its reflexive and critical focus. They are exemplified, amongst other moments, in the many unanswered, unanswerable, or rhetorical questions I have asked through the text.[5]

Rather than relying too rigidly on theoretical argot (Barone and Eisner, 1997) the arts-based researcher depends on description, expression and thematics to facilitate and create meaning. In an elliptical way, the form of experience bequeaths the meaning and the meaning of the experience. Barone and Eisner quote Dewey (1934) to differentiate how 'scientific' forms of educational representation *state* meaning, while 'artistic' forms *express* it:

> The poetic as distinct from the prosaic, esthetic art as distinct from scientific, expression as distinct from statement, does something different from leading to an experience. It constitutes one. (p. 75)

Nevertheless, narrative, within an arts-based framework, most often "locates subtle but significant human activities within a recognizable sociohistorical context to bestow *verisimilitude* (Bruner, 1987) on the virtual world of the story" (Barone and Eisner, p. 74). Even as veracity is not sought as a research objective, verisimilitude renders it incapable of claiming 'truth' in any 'real' sense, as the 'real' is continuously deferred and ungraspable. However, narrative is more readily able to provide the features for

resonance[6] and *recognition* that appeal to intuition, immediacy and commonality within differing experiences, via the elements of story.[7] While the prescribed form of traditional social science research often canalizes thought, narrative and arts-based inquiries require a "subtle twist of mind" (Connelly and Clandinin, 1990, p. 4), and place the inquirer and audience within another *culture of thought*.[8]

More specifically, poetic perspectives within arts-based research are productive ways of engaging in and representing qualitative research using creative expression. Poetic practice helps one reimagine ways of understanding the familiar (Cahnmann, 2003, p. 32). As Cahnmann says:

> A poet's pursuit is to find fresh ways of expressing themes that have undoubtedly been addressed before – themes about love, death, social justice, home. A fresh way of seeing requires the practice of noticing (...). By drawing on the unexpected and "assuming and exploiting a common frame of reference" (Gioia, 1999, p. 31), poets achieve a concise ability to give language to the unsayable. (ibid.)

Thus saying, an important aspect of arts-based research, and one that is readily compatible with narrative, is poetry as a form of inquiry.[9] I have used poetry in my own research representation to bridge other styles of literary engagement, to provide another gaze on research issues that purposefully complicate meanings rather reduce or simplify them through mainstream language use, and to express meanings in different, sensitive and creative ways that are both provocative and evocative. Poetic form has permitted me to provide a vivid, lyrical, perspectival, and engaging expression of research concerns that appeal to the emotional, sensual, intuitive, visceral and philosophical, and that

enhance meanings of critical issues, maintain their complexity, and raise them to a more insightful, spiritual, heart-felt [10] and embodied dimension of human engagement.

Narrative, poetry and other arts-based approaches to inquiry are not without their risks. There have been several criticisms directed at narrative inquiry that are worthy of considering in terms of the potential dangers they pose. One of the most frequent charges against some forms of narrative, according to Connelly and Clandinin (1990), is that, in certain cases, (such as in autoethnography) narrative stresses the individual over the social context, and that these narrative renditions do not sufficiently challenge critical dilemmas of a social nature related to the narrative context, and are, in themselves, not open to critical appraisal. Consequently, Connelly and Clandinin (1990), acknowledge the importance of criticism in narrative inquiry. They say: "To dismiss criticisms of the personal and interpersonal in inquiry is to risk the dangers of narcissism and solipsism. Narrative inquirers need to respond to critics either at the level of principle or with respect to a particular writing" They warn: "It is too easy to become committed to the whole, the narrative plot, and to one's own role in the inquiry and to lose sight of the various fine lines that one treads in the writing of a narrative" (p. 10).

Connelly and Clandinin (1990) continue this thread to warn of "the Hollywood plot" where everything works out well and of Spence's notion of "narrative smoothing". They say that it is a question of becoming alert to the untold stories as much as to those that are told, and to attend to the "narrative secrets" in self-consciously discussing selectivities and limitations in the narrative inquiry process. Ironically, Willinsky (1989) criticizes

Connelly and Clandinin's narrative work on "personal practical knowledge" by arguing that:

> personal practical knowledge risks complacency…risks becoming more therapeutic and reassuring than diagnostic and critical….I have pressed for the teacher within the realities of the personal, practical ideologies of power in educational systems as part of the researcher's contribution to the collaborative process. (p. 262)

This draws attention to one of the most significant dangers of narrative: to fail to address the structural and material conditions in which people experience their lives. These conditions are embedded in the lived landscape of experience and can be obscured or made to be invisible through the aesthetic mode of narrative construction.

On the other hand, we must also not dismiss the aesthetic, the hopeful or the spiritual in favour of the reproduction of failure, disadvantage and despair. It is a double-edged spear. By discursively embedding research participants entirely within the structural conditions of their existence, through singularly deficit contextual description, is to disallow change and to lock them into these conditions, limiting alternate imagined possibilities of being and experiencing, and consequently producing and reproducing social difference and pathology. Nevertheless, narrative provides opportunity for redress through stories of reconciliation, human courage and devotion, the honouring of collective and historical narratives, the evocation of ethical and moral commitments, and personal and social transformation through narrative journeying. Stories that remind us of who and what we were/are, by giving us (back) our collective memories, shape our constantly (co)emerging identities and the possibilities of who we can be.

Closely related to the above concern of "narrative smoothing", is the understanding that narrative, through its aesthetic, expressive and descriptive features, can be a very powerful *orientalizing* agent (Said, 1979), one which naturalizes and objectifies "others" in their contexts of being. The narrative provides a potentially powerful medium for the romanticizing and exotisizing of "other" cultures. These orientations are amongst the main concerns of critical ethnography, and whilst this "othering" process may never be completely eradicated from ethnographic research, the presence through personal inscription of the researcher in the construction of narrative is critical in establishing more legitimate grounds for the interpretations made, albeit that they are ever partial, as well as for making visible the power relations between researcher and research participants. Narrative inquiry with limited critical and reflexive foci is vulnerable to dangerous naturalizing and pathologizing orientations.

Another related danger lies in notions of "narrative unity" (Connelly and Clandinin, 1990, p.3). This is an ideal that can be sought, but never fully achieved. No matter how close the collaborative relationship, the narrator-researcher is still the final authoritative voice through the research institution, and the differential in power relations between researcher and participants should not be obfuscated within the research project. Due to relations of power and the differing positions of researcher and participants in terms of accountability, responsibility and institutional affiliations, selectivities and silences within research are inevitable. These should be fore-fronted in acknowledging how they might shape the priorities and form of the narrative within the constraining context of

institutional requirements. The context of the research, the research question, and the research initiative are informed by the predisposition of the researcher, as fieldwork is inextricably resourced within an institutional framework and from a material base. Often insufficiently acknowledged, we must remember that the researcher writes for a particular academic audience and this (re)produces various positions of power within this delimiting context. Consequently, accountability for analysis and narrative construction falls on the researcher/narrator in the main and not the research community or participants, irrespective of proximity in collaborative process.

These research limitations apply equally to certain rhetorical claims of "own voice" prevalent in some feminist literature.[11] The danger in the narrator/researcher's claiming that the participants speak in their "own voices" through her research work lies in its denial of the selectivities, priorities and silences created in the construction of narrative as well as the *context* in which the voices are heard. This claim denies access to a critique of the researcher's analysis, as the critic is placed in an invidious position and the "voices" are beyond reproach. Nor does it take cognizance of the contexts in which the voices are produced, what power relations are reproduced and how these voices may have different realizations in different contexts; in other words, how they are differently framed or recontextualized across settings. The contexts of *hearing story* and *writing story* are very different. The author/audience of both forms of account "recruit selectively from different settings to establish their own positions" (Ensor, 1996, p. 1). In this way, whatever the evoking context, subjectivities are foregrounded or backgrounded in context, certain repertoires or positions are indexed over others. This motivates the selective recruitment

of linguistic and somatic performances. That is, the context of the narrative inquiry (and its various settings) calls forth or interpellates certain subjectivities or positions (example: researcher, narrator, research participant) and backgrounds others (example: friend, woman, neighbour). The complexity of these relationships and how they are reconfigured across contexts needs to be acknowledged.[12]

A further danger exists with narrative if it too closely begins to take on set schemata. Narrative inquiry should never become another prescription for research, or encourage the understanding that "we have arrived" or are closer to "the truth" in any way. Narrative inquiry relies on criteria other than validity, reliability and generalizability, and is still only one means of achieving research understandings. This is despite its being capable of a broad focus and research terrain that attempts to (re)articulate lived experiences in a palpable, compelling and expressive manner, within the context of its construction. Narrative does have the advantage of drawing on all the senses. It is appealing to body, mind and spirit in a more organic and holistic manner in which personal and social identities are constantly relational, shifting and emergent as the narrative unfolds. It is therefore more useful to see narrative and narrative inquiry as an ongoing, (co)emerging development of identity, ideas and ideals, rather than as a bounded research object that necessitates final closure. In this way, narrative/narrative inquiry is a process of continuous *metaphoring* or *narratizing* and resists being temporally and spatially contained and formalized into a set of procedures or prescriptions. Rather than solutions and recommendations being its research goals, more

contingent evolutionary aspirations of resolve, commitment, transformation, transcendence, renewal and insight might hold more profound importance.

To situate my own work within this discussion, the question can be asked: What, therefore, are the purposes and motivations of my own engagement with narrative and arts-based inquiry in this research project? Firstly, I have embraced narrative and other forms of arts-based inquiry to engage with sensitive research dilemmas, disjunctures, paradoxes and controversies so as to grapple with, and hopefully sometimes grasp, nuance, subtlety, contingency and complexity as they play out in often, difficult narrative moments within the research contexts. Narrative offers the opportunity to broaden the horizon on these issues by incorporating discussions on ideological positions within the broader social domain of discourses as they inform the narrative moments.[13]

I have drawn on theory and political commentary as the research narratives unfold, and where the journey has taken me many places, both literally and metaphorically. The narratives and research context have informed theoretical relevance, rather than been performances of preconception. I have viewed every aspect of the research experience as being organically interdependent, as representing an unbounded whole, and as a continuing narrative journey in which my own personal, academic, intellectual and spiritual journey has been intricately interwoven. There have been epiphanies and life-changing events en route that have shaped my narratives, the way I have engaged with them, how I have lived them out, and my personal identity in relation to my research and to others who have intersected my journey's many paths.

In alignment with my personal convictions, I have attempted to tell intricate, provocative and contentious stories, to facilitate greater depth and critical focus within mathematics education research towards the greater purpose of broadening the debate on social justice ideals and the possibilities of a more egalitarian society. This has meant directing the narratives towards critical meanings, and attempting to be aware of their potential limitations.

Bernstein (2000) views different forms of knowledge as having different inherent structures and propensities. He defines two forms of knowledge, *vertical* and *horizontal* discourses, whose inherent propensities give rise to the reproduction of very different further forms of knowledge or ways of knowing. Vertical discourses produce stratified hierarchies of knowledge. They are open to specialization and increasing forms of abstraction, as in the Mathematical Sciences and other specializations akin to science. Horizontal discourses do not lend themselves to specialization and do not easily produce further knowledge that is abstracted and decontextualized from its defining principles. Everyday knowledge might be considered a horizontal discourse, embedded and re-embedded in the grounded happenings of everyday events. Itself most often grounded in human experience, narrative might be considered a horizontal discourse in expression and form. Its unbounded, rhyzomatic and integrative form lends credence to viewing it as a potentially vast, open landscape within which negotiated meanings are produced and modulated, rather than as a bounded, hierarchy within which specific and specialized meanings are reproduced intralogically.

I have embraced narrative in this research for these very qualities, its proclivity to produce a proliferation of unfettered meanings within a landscape of possibilities. I have done so for a number of important reasons. Firstly, I have chosen to embrace it within a Mathematics Education Research context, which has historically distanced itself from arts-based interpretations of its methods, knowledge base and practices. As a consequence of the positivist-inspired dichotomy engendered between the Arts and Sciences, narrative and arts-based research orientations within Mathematics Education Research have been largely absent, compounding its "internalism" (Skovsmose and Valero, 2001). Research within the International Mathematics Education community has most often attempted to emulate the discursive and empirical forms of the Sciences in its commitment and objectives, narrowing the possibilities of other interpretative possibilities of rendering meaningful understandings. The dualism between the Arts and Sciences has investment in Western/Eurocentric thought and the authority of the Sciences hinges on dichotomous assumptions of their material and epistemological distinctions. Mathematics Education research has shied away from the Arts, perceived from a positivist Scientific gaze as the weaker position, but recruiting, instead, the self-acclaimed 'authority' and supremacy of the Sciences for its legitimacy within the academy.

I have advanced an arts-based approach in order to provide a broader base for interpretive possibilities, to challenge the existing interpretations of what Mathematics Education Research ought to look like, to contest the power principles that self-define and limit 'the sayable' within Mathematics Education Research, and to deepen and extend its

understandings and academic engagement beyond the usual, orthodox terrain of Scientific/ Social Science research. This approach contests the principles of power that provide Mathematics Education Research with 'scientific' legitimacy, and it offers opportunities for alternate, previously-illegitimated interpretations, which I believe has the potential to broaden the field and make worthy contributions.[14]

Secondly, I have not avoided self-inscription in my narrative writing within this research project, and acknowledge how my perspectives, location as researcher, and personal experiences (as my positions of insider and outsider constantly mutate within the research context) have informed my construction of ideas and narrative telling. Therefore, it makes sense that the many subject positions and identities one takes on in daily life, and the memories that are formulated as they are reconfigured across time and place throughout one's life journey, would inform the very experiences that consequently infuse the narratives.

I come from a background in the performing arts where my experiences in dance and drama and secondary schooling in the arts have shaped who I am. Having chosen to pursue the Mathematical Sciences at tertiary level education, I have often been in positions where it was expected of me to deny my artistic background and repress artistic expression as if these were inferior or invalid contributions to make in the World of Science. The principle of power within scientific discourse which situates it in the lofty position as presiding judge over other 'lesser' discourses, provide evoking contexts where

certain personal performances are illegitimated and control is established around what constitutes 'scientific' space.

Consequently, narrative-based interpretations are not well established in the mathematics education research field as they are in other qualitative research domains. I have chosen, therefore, in this research project, to resist the expected norms within mainstream mathematics education research that would have me reify my science background over my arts one. I therefore offer a fuller range of both my science and arts identities, in a more integrative and holistic manner, through my research orientation and the versatility of my analytical and interpretive thinking, writing and expression.

Thirdly, I strongly support the use of narrative and the arts in pedagogic practice in the mathematics classroom as a means of engaging students in school mathematics learning. I have, as well, encouraged its use in teacher education programs and made use of arts-based approaches, such as dance, drama, visual art and narrative, towards more integrative, synergistic, engaging and embodied practices that would motivate students *intrinsically*, rather than *extrinsically*.

Extrinsic motivation calls on mathematics' economic and technological use-value, its perceived importance in the workplace, and its potential to provide socio-economic and material advancement for individuals through access to its skill-base. Instead, I have encouraged the perception of mathematics as a beautiful and worthy human contribution, albeit grounded in contested stories about socio-cultural, historical, religious and political

endeavours, and carrying strongly ideological slants. By viewing mathematics as a landscape of storied meanings, creating elliptical pedagogies and ways of knowing, rather than a phallic of linear, abstract knowledge, I have offered a view of it beyond the narrow, instrumental, evaluative form most often presented in school mathematics curricula, towards one which may be more personally meaningful, and facilitate psychological well being rather than motivate through threat. I strongly believe that this more holistic approach provides greater access to the regulating principles of mathematics in the longer term and more meaningful personal and social empowerment.

An arts-based approach, therefore, is grounded in the belief that it achieves the ends of greater critical focus and personal autonomy in mathematics learning. This approach has been at the core of my own philosophy of mathematics education premised on egalitarian ideals of access to mathematics for everyone. It is, therefore, appropriate for me to use arts-based / narrative approaches in my research in alignment with my personal philosophy and identity.

Fourthly, I have embraced narrative in sensitivity to the context within which my research was undertaken. I engaged in fieldwork in 2001 within mathematics classrooms and communities of practice within vastly different socio-economic contexts in South Africa. The political climate within this country, the country of my birth, is one of poignancy, complexity and change, demanding vigilance in attending to the nuanced variations and subtleties in perspective, across local and national levels, and requires penetrating perception, sensitivity and subtlety. South Africa has undergone

unprecedented political change in the last decade or more and its history is marked by conflict, political dilemma and controversy. However, its human potential, resourcefulness, and collective capacity to rise above adversity and succeed against overwhelming odds are a testament to the goodwill and reconciliatory approach found within its collective human spirit of a nation determined to succeed. This is clearly evident in South Africa's success in overcoming the bloody consequence of full-blown revolution, which was predestined to be the inevitable outcome of its racially divided history. Narrative provides an appropriate, dialogical and explorative forum for engaging more sensitively, humanely and respectfully with complex issues in this research context, straddling the tensions between reproducing deficit and maintaining a critical focus.

Fifthly, this last point relates directly to cultural and contextual appropriateness in using narrative as a method to gain nuance and perspective. The previously mentioned notion of narrative as a *culture of thought* can be further developed to encompass a discussion on alternative research methodologies and the legitimization of other cultural epistemologies, practices and norms. As Watkins (1993) claims:

> Eurocentric analysis is viewed as linear. Rooted in empiricism, rationalism, scientific method and positivism, its aim is prediction and control.... African epistemology, on the other hand, is circular (Asante, 1987) and seeks interpretation, expression, and understanding without preoccupation with verification. (Watkins, 1993, p. 331)

Narrative inquiry presents an alternative research approach to the dominant discursive traditions of academic research in which are embedded the positivist tenets of Western

thought, and opens up possibilities for the legitimization and celebration of other cultural norms. As an example, the narrative as a form of expression of understanding the lived experience has greater possibilities of being more consonant with "African-centred ways of knowing" (Dei, 1996, p. 22). Perhaps it is because it possesses the "fundamental structure of human experience" (Connelly and Clandinin, 1991, p.121) or it has a "holistic quality" (ibid.) that invites these connections and opens up possibilities of threading theory and practice in ways that provide recognition of these cultural discourses, pedagogies, practices or "indigenous knowledges" (Dei, 1996). It could be argued, therefore, that this form of inquiry might well be appropriate for research in an African context. This is in consideration of and in respect of aspects of the cultural contexts and some of the social norms of the communities in which I engaged in research.

I'd like to return, for a moment, to the discussion on horizontal and vertical discourses as they relate to the production of knowledge, and examine more penetratingly on how this debate has motivated and informed my use of narrative in this research project within a mathematics education research context. While narrative may be constituted as a horizontal discourse, and may even possess the potential to produce circularity in consonance with African epistemology, I have used it also in a way to broaden the scope of what constitutes text for discussion and analysis within Mathematics Education research.

The research experiences provided the terrain in which my particular journey found route and I wove my narratives from the intellectual, physical and metaphorical

wanderings within the broad landscape of possibilities. However, there were times when I used *narrative moments* to stop and linger on the narratizability of the textual moments, and to produce "cross-sections" of horizontal wanderings. These "cross-sections" of narrative happenings allowed me to attend more carefully and penetratingly into issues of a critical nature. This often produced vertical discourses at these narrative moments where I was able to theorize on important concerns related to my research, but also opened up the opportunity to broaden the debates beyond the events of the moment so that horizontal discourse again came in to play. I am aware that through 'narrative smoothing' as previously mentioned, narrative might be used to obfuscate, compress, conflate or relativize positions through the alluring quality of its aesthetic form, constituting horizontal discursive elements throughout. Nevertheless, narrative has allowed me to explore *horizontally* the diversity of issues embedded in the textual map of research experiences, while engaging *vertically* in critical issues through lingering on and penetrating crucial narrative moments to their fullest, thereby avoiding 'narrative smoothing'.

The critical issues are explored reflexively and self-inscription is necessary to the narratizing, thereby increasing the *dimensionality*, through a multi-faceted perspective of the narratives, with the intention of providing a richer, more embodied account. Metaphorically, this could be viewed as a multi-dimensional, moving and undulating landscape of meanings, across space and time, that highlight fissures and crevices in the textu(r)al map of research. Here, the research experience is a journey across a rugged terrain of research issues and events, rising and falling on its narratizing.

Although I was convinced that narrative would be the most appropriate methodology for me to embrace for this research project prior to fieldwork, my final affirmation came when I was interviewing a teacher, of mixed-race decent, from an elementary school in an informal settlement. Having no private place in the school to tape-record the interview, I invited him to lunch in a nearby shopping mall. As we sat eating our lunch in the appealing ambiance of the restaurant, he related stories of his experiences teaching mathematics in the settlement school. At the beginning, I was conscious of the sound of a high-powered electric drill hammering away somewhere in the background and kept on wondering if the interview would be recording clearly. He began to weep as he described how he could always see on the faces of his girl students when they had been raped by their drunken fathers or brothers the night before; that they had a particular look and that he learned how to recognize it. I watched how the tears rolled off his long black eyelashes and down his gentle cheeks before dripping into his food. "The pain," he said quietly. "The pain.... So much pain." Soon I began to weep myself, but the drill still hammered on intermittently, indifferent to the pain of others' pain we were both experiencing, bent on its purpose of extending the size of the shopping mall. More shops. More and more exclusive boutiques. While the monotone hammer of the drill marked the drive of consumerism within a 'developing' globalized economy, it drove out the sound of the sobs relating to the desperate experiences of a nearby community living in abject poverty.

This experience took place within the recent temporal space of post-apartheid South Africa, where the despairing discrepancy between the 'have' and the 'have-nots', despite the rise of a new black bourgeoisie, has widened alarmingly in comparison with the socio-economic discrepancies of the apartheid era, as the "new" South Africa embraces global economic capitalism. Living this research moment, the contradictions were sonorous and vivid. Only narrative could capture this dramatic irony, not allowing its meaning to slip away into the silence of formal social science reporting. This confirmed for me, as did many other such moments, that not only was narrative appropriate, useful, and creative, but also necessary.[15] In the end, it is about noticing, attending and authentic listening, not only with the senses and the mind, but also with the *heart*.

And so I return to my original story. I am no longer eight years old. I hope I am no longer foolish, or as naïve as to believe that 'telling tales' in themselves may help or liberate another. Just as before, I cannot claim truth. I hope that my tale-telling is not an act of selfishness, disguised as kindness. But I also know that there is certain resonance between the motivations behind my 'telling tales' before and the tales I now tell. I know that I tell them as part of my very being, and that they come from the source of my soul. I tell them so that I am not merely an 'onlooker' to those who may be victimized either by others, by conditions in which they live, or a global system of circumstances which coalesce towards victimization of some while others advantage by it. I hope, through my actions and the stories I tell, not to reproduce deficit discourse and create guilt. At eight years old, I took the dignity away from a young boy by my actions in what I thought at the time was an act of compassion. I hope to give it back to him now as I claim my own

integrity through relating the tale of his victimization. Consequently, I hope not to take dignity away from the people and places that are the fabric of my stories. I hope to honour them and to give poignancy to their lived experiences. But I also hope, through sensitivity, integrity, and the evocative and provocative powers of narrative, to give back dignity instead.

I am reminded of the words of Nelson Rolihlahla Mandela (2002) in a foreword to his book on African folktales. He says:

> Because a story is a story; and you may tell it as your imagination and your being and your environment dictate; and if your story grows wings and becomes the property of others, you may not hold it back. One day it will return to you, enriched by new details and with a new voice. (p.7)

Perhaps the stories I now tell will grow wings and fly.[16] And perhaps they may come back to me with renewed hope and meaning. Perhaps, too, they will give me my *own* dignity in their telling and in giving them away.

ENDNOTES

[1] The policy of Apartheid ('separateness'), espoused by the ruling National Party in South Africa, was a central theme in the development of public policy following the second world war until, although to a diminishing degree, the inception of democracy in 1994. It found clear expression in the publicly funded education system, where Christian National Education (CNE) became the medium through which the state was able to 'teach' and justify the political and socio-economic raison d'etre for apartheid. It was a natural corollary for the ecumenical dogma espoused by the predominantly Afrikaans Nederduitse Gereformeerde Kerk, which also used the pulpit to rationalise political philosophy in religious terms. Instruction in segregated white and black state schools followed curricula laden with 'working' examples of separateness in race groups. A recurring theme in Social Studies and other subjects followed the religious analogy that blacks were 'hewers of wood and drawers of water', although this was not always blatant. Other central tenets echoed in CNE included that there was no need for black South Africans to learn mathematics because they would never hold jobs where this was a requirement, and that this was an essentially useless exercise anyway because 'the Bantu is a slow thinker' (Minister Hennie Smit, a former Minister of Education, quoted in Hansard of the 1960's).

To summarise, CNE comprised three major tenets:
a). It was a proponent of Calvinism which prescribed a particular conservative worldview;
b). It had militaristic components so that there was synergism between corporal methods adopted in the schooling context and 'protection of state' philosophies;
c). It forwarded a notion of nationhood premised on love and respect for 'die Vaderland'.

The methods used to indoctrinate were both 'overt' and 'covert'. The lack of division between church and state was a crucial aspect in ensuring that the state maintained its hegemony in an integrative way, thus increasing the opportunities for capturing the hearts and minds of student and teacher alike. Conservative Calvinism reinforced this doctrine on Sundays, while the state-controlled media covered the rest of the week. Corporal punishment in schools perpetuated the doctrine's enforcement. National service for 'whites' in the defense force was simply a 'natural' extension of all these methods, if a somewhat more harsh version, aided and abetted by the (perceived) reality of 'the war on terrorism'. It is, therefore, ironic that this same terminology ('the war on terrorism') is again being applied, but in a more global context, during my completion of this project in a post-9/11 world. [See also, Christie (1986): *The Right to Learn*].

[2] See Genette (1980) for engagement with narrative curricula through the three lenses of: "narrative" or "narrative statement"; "story"; and "narrating" or "telling". Here, "telling" incorporates not only the context of story, but the context in which the story is narrated, including its rules for legitimacy and regulating principles.

[3] In the educational arena, narrative as an epistemology has produced a proliferation of modes of inquiry as well as educational engagement, and operates in a variety of ways. While it often serves the purpose of reflexivity towards identity-creation in pedagogic practices and the illumination of pedagogic ideas and concerns in the teacher education domain, it serves progressive education ideals in curricula and practice within schools as well. As Conle (2003) asserts: "The use of narrative in schools ranges from the proposed need for meta-narratives and stories-to-live-by (Postman, 1995) to moral education (Oser, 1994; Puka, 1990) to important components of general re-orientation in education (Egan, 1997)" (p.4). Nevertheless, narrative curricula are historically linked to narrative research (see Conle, 2000), which has produced a range of emergent forms. Narratology, ("the study of ways humans experience the world" [Connelly and Clandinin, 1990, p.2]), as well as narrative inquiry, (a research medium and epistemology premised on narrative engagements), narrative writing/ representation/ performance, are some of the expressions of sub-fields of study (although not adhering to any strict classifications) or orientations of research with their own narrative-based emphases, each finding and establishing legitimacy within the qualitative, social science, research field.

[4] Here curriculum is viewed in its broadest sense, not confined to meanings of educational content knowledge and schooling syllabi. It can be interpreted in multiple forms under the umbrella of "curriculum as understanding" (Pinar, Reynolds, Slattery and Taubman, 1995) including *curriculum as lived.*

[5] The many unanswered, unanswerable, or rhetorical questions I have asked throughout the text, resist the traditional social science research orientation that expects recommendations and reducible, containable solutions to complex, dilemmatic situations.

[6] As Conle (2003) states:

> Narrative moments of encounter are characterized by what I have called "resonance" (1996), that is, the spontaneous metaphorical connection of parts of one's own life to the parts of a narrative statement one is hearing or reading. Feelings and images described elicit "me too" reactions and memories from one's own experience. Narrative encounters that bring about a great many of such connections are particularly productive curricular events because they facilitate a potential reshaping of one's prior experiences in light of the current encounter (Gerrig, 1993). (p. 11)

Resonance is a thematic connection with personal, imaginative repertoires of experience, and is crucial in producing meaning through narrative at various levels and from different perspectives. The writer/narrator relies strongly on this resonant connection for the story to have appeal and produce meanings. Interestingly, Conle refers to "narrative moments of encounter" to explain the importance of resonance to narrative engagements.

[7] In this sense, narrative/arts-based inquiry resists being held to ransom by the more scientific imperatives of standardization and generalizability in research methods and objectives. As Cahnmann (2003) notes:

> Once we realize that all claims to "scientific truth" are suspect, influenced by the culturally bound nature of the researcher's text, we can free ourselves to write in ways that name and claim feeling, story, and relationship. In so doing we will be better equipped to communicate findings in multidimensional, penetrating, and more accessible ways. (p. 33)

[8] One possible way of describing narrative inquiry as a research medium is as a *culture of thought* (where I define "culture", for the purposes of this discussion, as a set of interrelated understandings, beliefs, epistemologies, discourses or practices which are distinct from others in one or more ways. I acknowledge, however, the socially constructed nature of the term, its varied linguistic uses and contextual differences of interpretation). As mentioned, Connelly and Clandinin (1990), in respect of narrative inquiry in educational research, remark that: "Seeing and describing story in the everyday actions of teachers, students, administrators, and others requires a *subtle twist of mind* on behalf of the inquirer. It is in telling and retelling that entanglements become acute, for it is here that temporal and social, cultural horizons are set and reset" (p.4, own emphasis). This metaphor of "entanglement" and its associations with "temporal and social, cultural horizons", rightfully serves to provide a perception of a difficult terrain of inquiry, where obstacles prevent proper engagement and connection with all the elements of the discourse(s) in a paradigm of research which possesses multiple contexts and "horizons". The "twist of the mind" required is one of learning to become a cultural participant in a collaborative narrative space that

is continuously negotiated and contested on different social, temporal and spiritual levels. It can be conceptualized as an alternative (or particular) *culture of thought* (and even contortion of mental presence and subjective positioning) that requires consideration of multiple entry-points into the narrative context. And even this contextual space is constantly shifting and under revision. These mental gymnastics challenge the objectifying gaze of dominant social and cultural discourses entrenched within positivistic Western/Eurocentric thought and serve to liberate and revitalize more subordinated epistemological, cognitive and cultural discourses.

[9] Cahnmann (2003) noticed how poetic form helped her to visualize, express and notice aspects of her fieldwork that were not noticed/ noticeable and attended to before. She realized how she had previously brought everyday deficit theories with her into the research context, which limited her from seeing the full scope of life within that community. Poetic engagement allowed her to express feeling, and see the contradictions, dualities, and paradoxes (p. 33).

[10] In addressing the contribution of 'feeling' in narrative work, Ellis and Bochner (2000) refer to Stake's notion of 'naturalistic generalization', which they define as that which "brings 'felt' news from one world to another and provides opportunities for the reader to have vicarious experience of the things told" (p. 751). While I support alternative interpretations of generalizability in qualitative or arts-based research work, I am not convinced that 'naturalistic generalizability' is the most appropriate term, as 'naturalistic' suggests "naturalism", a highly relativistic research position to adopt in ethnographically oriented fieldwork, and is counter-logical to the principles and ideals of critical engagement. Nevertheless, the importance of 'feeling' and emotion, and the need for conscientizing through empathetic engagement and the appeal to commonality of experiences, as a critical narrative contribution to an alternative interpretation of an aspect of generalizability, should not be underrated. Perhaps, 'empathetic generalizability' or 'resonant generalizability' would be more appropriate descriptive terms.

[11] An example of this is the work of Casey (1993) who claims that her participants speak in their "own voices" and that they are "authors of their own lives" through her research in developing life histories of women working for social change. This is not to deny the importance of voice in narrative research, nor to de-emphasize or ineffectualize what is a very commendable research objective: the validation, celebration and legitimization of previously silenced voices.

[12] Connelly and Clandinin (1991) evoke Barnieh's notion of the self as being "plurivocal" as a means of addressing these multiple subjectivities. They fail, however, to address the complexity of these subjectivities across different settings and within different contextual relationships when they say: "in living the narrative inquiry process, we are one person" (p. 9).

[13] In this way, I have attempted to resist phallacial, pre-authored forms of traditional theoretical frameworks and research methodologies that tend to be bounded, stationary and delimiting.

[14] Asserting that school mathematics largely commits to the hegemonies and hierarchies within the disciplines of mathematics and science in general, and is strongly informed by socio-economic and technological imperatives, the dissertation investigates some of the problematic socio-cultural practices that school mathematics supports, and how these are realized in and across different contexts.

[15] As Charmaz and Mitchell (1997) aver: "Evocative forms of writing are not merely desirable; they are essential" (p. 195).

[16] "Perhaps the stories I now tell will grow wings and fly": This is, perhaps, key to understanding and achieving the criteria for *pedagogies of transcendence*, as a worthy means towards egalitarianism and social justice, i.e. pedagogies of liberation.

UNFOLDING THE MAP

The truth is that we are not yet free; we have merely achieved the freedom to be free, the right not to be oppressed. We have not taken the final step of our journey, but the first step on a longer and even more difficult road. For to be free is not merely to cast off one's chains, but to live in a way that respects and enhances the freedom of others. The true test of our devotion to freedom is just beginning.

I have walked that long road to freedom. I have tried not to falter; I have made missteps along the way. But I have discovered the secret that after climbing a great hill, one only finds that there are many more hills to climb. I have taken a moment here to rest, to steal a view of the glorious vista that surrounds me, to look back on a distance I have come. But I can rest only for a moment, for with freedom comes responsibilities, and I dare not linger, for my long walk is not yet ended.

Nelson Rolihlahla Mandela (Long Walk to Freedom, 1994, p. 617)

Arduous journeys require some preparation. It is best for the traveler to know, to some degree, where to start out, where she is generally directed, if not in detail, and what she hopes to achieve by journeying, even if she doesn't know where the route may lead her. At the outset, she needs to know why she wants to embark on such a journey, and not on another or not at all, in the first place. Arduous journeys require clear motivation and firm commitment.

I have spent some time explaining my commitment to narrative in my research, as a means of dialogically exploring ways of understanding my greater commitment of social justice and democracy through the ideals of an egalitarian society. I can begin to do this by offering a contribution of expertise, hope and dedication through my life's work and experiences.

Besides my Arts background, where I have been involved in both dance and drama at a professional level after having been schooled in the dance and dramatic arts at secondary school level, I pursued the Sciences and Education as well. After completing degrees in Mathematics and Education, I taught secondary school mathematics, and to a lesser degree – drama and dance, in a variety of contexts in two countries for more than fifteen years. Over this time, I have witnessed, through personal teaching experience and research, how students (and teachers) who carry constructions of social difference are subordinated within the schooling institution in relation to school mathematics and to other students (and teachers) who are provided with greater access to the "regulating principles" (Dowling, 1998) of this discourse through differentiated practices. I have seen

how delimiting and destructive these experiences have been for the subordinated. I have seen how covertly, yet visibly, this 'system' operates and how pronounced it is, especially in certain highly "stratified" contexts, with well-demarcated hierarchies, compared to other more "differentiated" contexts (Bernstein, 2000).

Nevertheless, I have seen how delimiting and oppressive contexts reproduce the conditions of "failure" more indelibly, more destructively. In both Canada and South Africa, I have witnessed the psychological and sociological impact of these schooling experiences, most poignantly with respect to mathematics, which carries disproportionately significant power and prominence in the social domain. I have witnessed the impact on the lives of many students and teachers and how these have shaped and delimited their future experiences.[1]

I have also, in the past, engaged in research in this area of the sociology of mathematics education, in an attempt to better understand the contextual circumstances and prevailing principles of power of discourses in the social domain that give rise to realizations of "success" and "failure". The motivations of this research were guided by a desire to attempt to effect ways of being and knowing with the purposes of re-imagining more egalitarian possibilities of experience for members of such pedagogic communities. This revisioning is directed towards more transformative practices, where this is possible, and in consideration of the situatedness of experiences and the recognition of constraining contextual elements pivotal to enabling pedagogies – ones which might lead to both mathematical and material empowerment for all.

I therefore bring my life experiences as a *whole* to this commitment. I am aware that the contributions I offer are not drawn solely from my research experiences over a three month period (June – August, 2001). I acknowledge that they are from all of my life: my personal convictions, my sensibilities, my talents and weaknesses, my moral and ethical convictions, my life philosophy and worldview, and the myriad of daily experiences I've had that coalesce to continuously shape and reshape my identity.

My previous Masters research, completed in 1998, was an inquiry into how socially constructed difference is established, created and constituted within school mathematics. In clarifying what I mean by 'social difference' discourses, these refer to constructions on race, class, ethnicity, gender, cultural difference, poverty, language difference, experiential difference, religion, sexual-orientation, dis/ability, amongst other positions – all of which are resources for prejudice, or worse – structural inequalities within legitimating contexts. These positions, whose variously intersecting formulations carry differing emphases, produce a range of subject positions within a particular evoking context which consequently relate to various positions of failure, deficit, or subordination compared with other, more enabling positions. These positions are established in relation to discourses such as mathematics education, so that constructions such as 'slow learners', 'good in the Arts only', 'learning disability', amongst others, are produced. The research project examined the relationship between discourse and practice within an elitist all-boys independent secondary school environment in South Africa. In particular, it examined how a group of 'black' male students, spoken about in terms of various forms

of social difference and deficit within the school environment (such as experiential lack, language and cultural difference, race and poverty), were afforded differentiated practices in the mathematics classroom, thus holding them to positions of subordination. In other words there was a concomitant relationship between discourse and practice, i.e. socially constructed "disadvantage" and pedagogized disadvantage were mutually constitutive. Thus, the reciprocity in discourse and practice in the construction of disadvantage was complete. However, the particular nature of the schooling ethos and culture, and its role in creating and maintaining boundaries, thereby producing and reproducing forms of power and control, assisted in the construction of disadvantage and pedagogizing of difference in the mathematics classroom and school at large.

My current research expands upon previous research by broadening the focus and exploring how constructed disadvantage is constituted and realized in school mathematics in and across different contexts, whether socio-economic, pedagogic, geographical-political, or an infusion of contextual positions and emphases. While my previous research focused on one elitist, stratified, school, my doctoral research looks at both an elitist context and other contexts of 'poverty' in examining how disadvantage is reconfigured, or recontextualized, within different mathematics classrooms. Strong emphasis was placed on the more constraining contexts of 'poverty', however, as minimal international mathematics education research has been directed towards understanding mathematics learning and ways of being within such marginalized schooling contexts.[2] But, the greater contribution of the current project is its reflexive and

critical focus, its narrative and arts-based methodology and interdisciplinarity, and its explicitly dialogical commitment to social justice and democracy.

The raison d'etre for undertaking research in the South African context is multi-faceted. Firstly, this project will be completed ten years after the first democratic elections in this country. The last decade or more marks a period of unprecedented socio-political and economic change in South Africa, reflected most poignantly in the educational arena where segregated schools have been integrated en masse. This decade has seen the institution of a new educational dispensation, reflecting the high egalitarian ideals enshrined in the new democratic constitution. In its application, there have been tremendous successes, but there have also been recidivistic difficulties in trying to achieve harmonious objectives in resistant or vulnerable contexts.

Secondly, having lived and taught in South Africa for most of my life, I bring considerable experience to bear on this research context. In this sense I could be considered an "insider" on educational and experiential issues in this context, although productive qualitative research makes visible the many moments where changing contexts shift the emphases of 'insider/ outsider' relationships as subjectivities mutate according to changing contextual priorities. When I have been aware of this happening, I have attempted to make it explicit in the interests of a critical reflexive approach to qualitative research. Further, doing research in a 'known' context of South Africa, but from another 'known' Canadian institutional context, and the competing relations of

power informed by these positions, was ever present in my consciousness as potential resources for the production of multiple, often conflicting, subject positions.

Finally, the South African context has been marked historically by controversy, contestation and conflict, and in recent times, by rapid change as well. This has highlighted the many difficulties invoked through processes of change. But, it has also produced the advantage of being able "to see" more vividly the effects of conflict and change on research texts, such as classrooms, schools and educational institutions. While the effects are more dramatic or visible, they highlight dangers. Areas of concern are often pronounced within mutating contexts, providing opportunities to notice and clarify problematic issues. Legitimating spaces may even open up for constructive transformation, but areas of concern may often become manifest in the attending dilemmas, contradictions or ambiguities produced.

Nevertheless, similar or related issues are also experienced in other contexts, such as the Canadian context, and may well have the added dangers of being less visible for a variety of reasons, such as the obfuscation or 'unseeability' of 'poverty' related issues because the broader geographical-political context appears to have greater overall economic wealth. The forward thrust of technological advancement is one such discourse of power that often hides problematic structural inequalities in contexts where it is advanced (to excuse the pun) as *the* solution to societal ills. Thus, contexts that produce more visible realizations of problematic issues are useful in helping us examine more covert or less

visible realizations in other contexts, so that we are ever vigilant and constantly attending to these silences.

The context of change in South Africa has been somewhat advantageous from a research point of view in that it has proliferated new issues, new concerns and raised new questions, as well as opened the opportunity to view old ones through new lenses. In essence, the research undertaken in South Africa has strong implications for mathematics education research in a variety of contexts, including Canadian ones, and strongly and uniquely contributes to the international mathematics education field at large.

Briefly, my physical research journey was a fascinating one, where I began in Johannesburg in June 2001, winter in that region, by attending a highly regarded, national, mathematics education conference with prominent international speakers. It was a conference with a majority of black African delegates, reflecting more representatively the 'new' South Africa. Participants ranged from teachers and administrators, to mathematics and mathematics education academics. I elaborate on it further in one of my narratives: *Cultural Beads and Mathematical A.I.D.S.*

At the close of the conference, my daughter, who was accompanying me on my research travels, and I then took a lift (a ride) with two of the delegates to a rural area of the Eastern Cape region, which has been historically an impoverished area of the country. There, I visited a farm school, which I elaborate on in another narrative: *States of Nature*. Our following travels took us to the Western Cape region in time for the opening of

schools after the mid-year vacations. The South African school year, like most other Southern Hemisphere countries, runs from January to December. It was in three schools, two secondary and one elementary (primary) school, that comprehensive research was undertaken.

Over a two month period, research in these schools within the greater Cape Town region took the form of participant observation and interviews, while I documented narrative moments in extensive field notes throughout the research process. This meant choosing to be open to narratives offered by others of their lives and experiences at all times, and not only under interview conditions. There were many discussions and dialogues along the way that informed my research, my identity co-constructively, and both in relation to each other. More than forty hours of interviews were tape-recorded, and there were more than forty hours spent in participant observations within mathematics classrooms. But all events, no matter how dramatic or insignificant, were viewed as textual resources for potential analysis, dialogue and narration, so that the research experience was an ever narratizing journeying, both pedagogic and personal.

At the end of this period, my daughter and I flew from Cape Town back to Johannesburg, to complete a cyclical journey, before returning to Vancouver, Canada, in early September 2001. Fieldwork, therefore, directly preceded the September 11th 'terrorist attacks' in the United States, which marked a significant turn in world politics.

Special permission must be sought from South Africa's provincial education departments before any researcher, whether from an internal or external institution, is allowed to work in any South African educational institution, most especially schools. This is over and above any ethical review documentation endorsed by the home research institution. Permission to undertake research in South Africa is sought after and is not easily granted, because of historical abuses to the system, by both internal and external agencies/ researchers, and in respect of the many ethical considerations involved. I encountered no difficulties with this process and was granted permission by the provincial department.

I spent two days visiting several schools in the Cape Town region to determine which might be appropriate for my current research. The Western Cape Education Department gave me permission to engage in research at several schools, but I decided to focus on three schools only, within a twenty-five kilometre radius of each other, to ensure a richer and more intimate research experience. Two of the schools displayed a very marked difference from the third school in terms of the socio-economic context from which the community was drawn, as well as differences in racial profile. The motivating factors for the choice of schools were their marked contextual differences and proximity to each other. Safety issues and relative proximity to Cape Town University as an academic resource centre, as well as my home base during the research period were also considerations, albeit to a lesser degree.

I began research in the two, contextually-divergent, secondary schools and my choice to include the one elementary school was affirmed when I became aware of discourse

within the one secondary school which sought to 'lay blame' on the elementary school for the academic 'failure' of its students. I was keen to hear if there was related discourse evident in the elementary school that would either contradict or affirm the 'victim-blaming' discourse of the secondary school. This elementary school was a feeder school to the secondary school, which was situated in a lower socio-economic area, while the elementary school was placed in an informal settlement close by. Both secondary and elementary schools were very close to a highly affluent suburb of greater Cape Town.

I follow with a brief contextual description of the research schools, although I elaborate on them in the narratives. Pseudonyms are used for names of schools, teachers and students throughout:

Visserman's Baai Laër (Fisherman's Bay Primary/ Elementary):

This is the elementary (primary) school situated in the informal settlement. It enrolled students from grade one to grade seven with approximately 40 to 50 students per class and more than one class in many of the grades. There were a few young adult students (in their early twenties) attending the grade seven classes, as there was no facility for adult learning in this area. The settlement school comprised Xhosa students, who learned predominantly in English at the school, and mixed race students, (historically referred to as "coloured"), who learned in either English, but mostly in the Afrikaans language. Instruction was predominantly in Afrikaans, however, as the majority of teachers were mixed-race Afrikaans speakers and Xhosa teachers mostly conversed with them in Afrikaans. The Xhosa students derived from recent migrations of Xhosa families into the

greater Cape Town region. These families came from impoverished rural areas of the Eastern Cape Province. The adults sought employment in the city. Nevertheless, the teachers, who in describing their working conditions made reference to the settlement, noted that the unemployment rate in the community was extremely high.

Visserman's Baai Laër, translated *Fisherman's Bay Lower* (Primary), is a pseudonym for the school. I have used the vernacular to reflect the predominantly Afrikaans community. I chose this name to reflect the nearby fishing community. Some of the parents would have been contracted by local fishermen or worked at the nearby harbour.

Community members were described as being predominantly Christian in this school. Most teachers were college trained and none had university degrees. Some were teaching subjects for which they were not qualified to teach. However, this was not always the case. The school is a small brick building and is situated on a small piece of ground with minimal playground space. Conditions were cramped. During my research period, several new classrooms were being built in a new classroom block, with modern facilities and restrooms. This development was funded by "an appeal" program run by members of the adjoining affluent suburban community. This adjoining community was predominantly white. When I left the research site, the new classrooms were nearing completion. Other 'upgrade' development projects were also planned, and there was a school feeding program in operation from the same "appeal" program. I elaborate on the conditions within this school in one of my narratives: *Fishes and Loaves*. All students wore school uniforms.

Visserman's Baai Hoer (Fisherman's Bay High/ Secondary):

This is the secondary school for which *Visserman's Baai Laër* would have been one of the main feeder schools. This secondary school was closer to the harbour in a nearby bay, and in a more established, historically-'coloured' suburban area, where community members have been fishermen or worked in the local fishing industry for many decades. On the opposite side of the bay, extremely affluent estates situated along a wide expanse of white beach, are clearly visible from the school, marking a strong socio-economic difference with the community school. Many of these estates are owned by foreign/ international tycoons who make use of the estates for holidaying purposes. This scenic bay is a prized residential location in Cape Town, and boasts strikingly beautiful mountains, beaches, valleys and sea.

Again, the school community was predominantly mixed-race, with a minority of Xhosa students, although the number of Xhosa students was on the rise due to recent migrations of Xhosa families to the metropolis of Cape Town. These students were mostly from the local informal settlement, rather than the local suburban community. This school had historically been mixed-race. There were no white students at the school. All teachers were either mixed-race or Xhosa, and spoke predominantly Afrikaans, although there were a higher proportion of English speaking teachers at the school.

Xhosa was offered as a language of instruction, although all subject areas, including mathematics, were taught in English or Afrikaans. Mixed-race students were assigned to

either English or Afrikaans classes according to their preferred language of instruction or their home tongue. Xhosa students were automatically assigned to English classes, as there was no mathematics instruction available in Xhosa. English was spoken of, by students, teachers, and other members of the community in general, as being the preferred language of instruction. This was because it was perceived as the language of business and economic empowerment. This reflects a common perception in the 'new' South African context. Preferred language is also premised on historical events, such as the 1976 Soweto student uprising against the government, in which Afrikaans was perceived as the language of the oppressor. This was to a much greater degree than English, despite the colonial history associated with the English language in the South African context. This is a direct result of the Afrikaans-dominated *National Party* as the Apartheid regime.

The community was predominantly Christian, but there was a significant Moslem community as well, and a Mosque was situated close to the school. Discourse within the school described mixed-race students as being predominantly Moslem or Christian, while Xhosa students were described as usually being Christian and/ or following indigenous beliefs.

Class sizes were similar to the elementary school of 40 –50 per class, and there were usually at least two classes of each grade level, from grade eight to twelve, usually segregated by language of instruction. There were approximately 600 students at the school at the time of research. 'Lower grade' (non-university entrance examinations) and 'Standard grade' (more vocational stream - only university entrance if the final result is a

C or higher, and only considered for certain disciplines, excluding university mathematics), were available in mathematics. 'Higher grade' mathematics (university entrance level) was not offered at all. Even with the passing grade of 30% and 40% respectively, the majority of students failed both Lower grade and Standard grade mathematics in this school in their final years.

Some teachers were college trained while others had university degrees. All teachers were either of mixed-race descent or Xhosa. The majority were mixed-race, however. All students wore school uniforms.

Broughham House:

This is a pseudonym for a relatively new independent school with approximately 1200 students, 600 secondary and primary level each. The primary school is on the same campus as the secondary school, but I limited my research to the secondary school only.

The school is situated on a large campus in a beautifully scenic, semi-rural area of the greater Cape Town region. Expansive buildings are historic Cape Dutch architecture and have been carefully renovated to preserve their national heritage. All rooms and classrooms have been tastefully refurbished and decorated in keeping with the Cape Dutch style of architectural design. The impressive entrance is a long, winding avenue lined with trees and exotic flower bushes. There is an Olympic sized swimming pool and several sports fields. The school has a cafeteria, and dance, drama, and art studios. There are faculty and senior student lounges, a separate photocopy room, libraries, computer

laboratories, and many more facilities boasting state-of-the-art technologies. The ambience is one of space and light. Codes of class are strongly, visibly evident. The majority of students were white as were the majority of teachers. Black African students were a greater minority than mixed-race students.

And so, returning to the temporal space of a pedagogic journey's start, I unfold the map and peruse it, as I wonder what learning experiences this journey will hold for me. I know that this stage of the journey is one of preparation. I know that this is the beginning of one journey whose end, if this can be determined in any exact sense, is the start of yet another, whose route will be inextricably linked to the experiences of the current one, and whose successes depend on it. It is a journey of many wanderings, and many choices, for there are many reticular paths that could lead to many places. Any one of them might have achieved profound meaning, albeit different. I am grateful for the choices I made and the experiences begot by them.

I know, too, that my previous experiences living and teaching in South Africa necessarily informed the choices I made, my ways of 'seeing' and my motivations in 'looking'. I was born into this landscape, and my love of the land and the people inform my 'telling'. I view my roots as a gift to the research I engage in and the contribution they can make to the international education community. In this sense, the greater journey of my life informs the pedagogic journey I now describe here, as did the previous pedagogic

journeys I undertook. As the map unfolds, I see it as a part of a much larger map within which the current map finds its purpose and place.

This dissertation follows a chronology of writing, not the chronology of events represented by the physical research journey. The pedagogic journey, therefore, is represented in this project in its written form. Nevertheless, the writing interweaves with the learning, being constitutive of each other. Therefore, it is the pedagogic journey and the personal narratizing journey of enlightenment, learning and spiritual growth that have been the most important.[3]

I have tried to do justice to the research journey by making every effort to tell as full a story as possible within the constraints of this research project, being ever cognizant of my shifting locations and roles. I have many stories to tell, many more narratives to write, and I can only choose a few whose complexity and epiphanic qualities led me to appreciate their particular poignancy and to write them while continuing the pedagogic journey. The importance of their meanings, to both the mathematics education field and the broader educational arena, give personal meaning to the research experience. I am sorry that I cannot offer them all within this academic representation of my journey, or it would not be a stage of a journey of travel at all, and would never lead to liberating experiences, both personal and societal. For there are further journeys beyond the 'great hill' which Nelson Mandela describes in his own walk to freedom, and there are other important hills to climb. As he insightfully says:

"I dare not linger, for my long walk is not yet ended."

ENDNOTES

[1] The notion of witnessing is an interesting one in that it raises the question of relevance of indigenous epistemologies and wisdoms to the educational/ research context. I believe that there is insufficient research undertaken to support the importance of these wisdoms. Although witnessing often has associations of therapeutics, spiritual transformation and healing, as in First Nations epistemologies and in South Africa's post-apartheid *Truth and Reconciliation Commission* hearings, it serves a further purpose of providing recognition of the fact that researchers bring to bear the *whole* of their life experiences: what they have witnessed, what they have done, and who they have become or are becoming in the process, or throughout the journey.

[2] It is of interest and concern to the mathematics education community at large given the imperatives of globalization and internationalization of mathematics education research that power relations exist in the participation, configuration and orientation of research agendas in this area. There is inequitable participation and commitment to research within developing and developed world contexts, for example. From a South African mathematics educator and researcher's standpoint, Chris Breen [in Breen, Vithal, Mtetwa, and Setati (2003)] remarks:

> The migration of research and researchers no doubt plays its part in shaping what we study and the kinds of questions we ask. We need only point to the serious lack of research into impact of poverty on mathematics education; the effects of large classes with limited resources; about understanding teaching and learning in situations of conflict, violence and war; of our lack of knowledge about how those learners on the margins of society (e.g. in prisons or "street shelters") learn (or suffer) mathematics teaching; and about policy reforms and transformation and their impact on mathematics classrooms and in schools and communities. Even though these conditions and contexts exist everywhere in varying degrees, they are the overriding issues in poorer countries yet these questions hardly seem to feature in the mathematics education research agendas of our countries. (p. 22)

[3] I speak earlier of narrative engagement in terms of the identity it constructs, or the subject position(s) it calls forth. Althusser (1971) asserts that an ideology always already exists in an apparatus and its practices. This existence is material. (p. 156). In this way, for Althusser, individuals are always-already subjects that are interpellated (or hailed) into another subjectivity. (pp. 163-164). This is similar to the inscription of the subject within social relations and practices, in the Foucaultian sense. Following Althusser, I view my research engagement in terms of always-already-narratizing, and being recruited or interpellated into 'writing narrative'.

PHASE THREE: JOURNEY ACROSS CONTEXTS

My journey begins. As I leave on my research travels, I know that my pedagogic journey has moved into the next phase. There is promise in my narratizing for a clearer vision, as the moon is full and emits the light of hope. I must use its illumination to its fullest. I am ready. I must begin....

The four narratives describe the narrative intricacies of the research journey, but follow a chronology of writing, rather than the physical route. In this way, the pedagogic journey is fore-grounded. Throughout the narratives and the dissertation as a whole, important themes are invoked and inter/intra-woven into the text. I return to them again and again so that they articulate with each other within and across the narratives. In this way they are iterative and represent an elliptical pedagogy, possible with narrative. Each invocation of critical themes, provides a new perspective of engagement, so that an ever fuller interpretation becomes possible premised from the (inter)textual moments in which each are embedded. Themes intersect, overlay, and collide with each other as they move across contexts. They are introduced and re-introduced, emphasizing their situatedness and particular meaning as grounded in lived experiences. In this sense, the narratives (inter)weave stories of how these themes are recontextualized at different *moments of articulation*, so that meanings are ever-emergent. Voices speak across narrative texts, shaping meanings within them from voices both *outside* of and *inside* of narrative texts. They can be heard through authentic listening, and they ensure that texts are never bounded and closed, and that generative dialogue is always, ever open... as alluring as a full moon..... Hopefully not eclipsed by a 'globalized' Earth, perhaps, the moon shines red tonight on an African horizon.

STATES OF NATURE:

CREATING 'THE NORMAL' THROUGH A TALE OF A FARM SCHOOL.

This narrative is a reflexive account of a visit to a farm school in rural post-apartheid South Africa. It focuses on issues of normalization, localization, and proceduralism. It attends to past, present and place in discourses of change as they encounter discourses and lived experiences of the 'everyday', as well as their attending ideologies. It looks at the importance of context, prevailing ethos, and the political disjunctures between the local and global. Neoliberalism, conservativism and white governmentality are problematised in how they interweave and embed themselves in the fabric of the 'everyday' to create 'the normal'.

The day emerged with the distinctiveness of 'place'. Beyond the thick, sandstone walls of the old farmhouse, sounds and smells of awakening blended together in a composition of historic consciousness, calling forth the elements of its rural setting. Through a crack in the bedroom shutters, shafts of African sunlight fell across the broad worn beams of the hardwood floor in a play of white light, lancing the objects of domestic ordinariness about the room and shocking them into prominence from their nightly cloak of ethereal unknowing. With the coming day, the hard rays of light slowly changed their focus, capturing objects, magnifying shadows and recreating shapes in the space of the room. It was as though the beams of light were directing their attention onto objects of the mundane and the ordinary, selecting them and providing them with special significance for the day: spotlighting the scene of an imminent performance [1]... The soft zephyr of dawn, the growing warmth of morning and the light of early day conjured up the elements of a story about to be retold in the language and images of the everyday, thus providing a great presence of familiarity and expectation, at once in tension and harmony with each other. The play of the 'known' and the 'normal' was being set for the day's events.

"Goeie more[A], ... is that the operator?" I heard my sister's voice on the telephone. "Elise.... is that Tannie [B] Elise speaking?" The smell of coffee and freshly baked

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[A] Afrikaans for: Good morning.

[B] "Tannie" means "Aunty" in Afrikaans, but is often used across some population groups in South Africa as a term of respect and as a sign of deference to elderly women, or by children to adult women. There are similarly deferential terms (most especially with respect to age and status) in all the indigenous languages.

buttermilk rusks [C] wafted alluringly from the large kitchen that hissed with breakfast making. "Oh, hullo Tannie Elise! Hoe gaan dit met û?" [D] My sister's voice changed tone to fit in with the strong Free State Afrikaans [E] intonations of the telephone operator on the other end of the party line... a line, or network of lines, which bound a farming community in a cultural enclave... holding it within a temporal-spatial laager [F]. Outside, the "warring impis [G] " of political change could be held back by a Conradian [2] efficiency and busyness of domestication, hard labour and the congregating around local church-focused 'community affairs'. In this way, a floral home-spun tea-cloth (from the ladies bazaar) of 'civilization' is thrown, like a shroud, over the prejudice and human anguish lurking darkly beneath.... "O, is dit reg? Ag, siestog, Elise![H] Oh, I am so sorry to hear that... en Oom Fanie? Is sy been 'n bietjie beter? [I] Ag, that is so nice to hear... gee vir

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[C] This is indigenous fare, similar to "biscotti", enjoyed by dunking into a cup of tea or mug of coffee. In my experience, it would be associated with homeliness, comfort and "'n lekker lewe", (a good life).

[D] How are you? ("û" refers to the deferential form of you ("jou") and is considered more polite/formal).

[E] The Orange Free State is one of the eight (historically four) provinces of South Africa. It is steeped in Afrikaans history and was the first Boer Republic. It is mainly rural, and like many rural areas in South Africa, is known for its 'impoverished' communities.

[F] "Laager" refers to the ring of wagons which the Boers adopted as a defensive military position against attack by warriors, especially Xhosa and Zulu, in protection of that immediate group of trekker families. This occurred frequently during the period of 'The Great Trek' into the interior of South Africa. The Boer Trekkers were attempting to escape the occupation of the British who had colonized the Cape Province. The isolationist thinking of the Nationalist government in doggedly maintaining racialist Apartheid policies despite South Africa's increasing rejection by the rest of the democratic nations has often been referred to as the Nationalist government's "laager mentality".

[G] "impi" is a traditional Zulu military unit comprising a number of warriors.

[H] "Oh, is that right? Oh, what a pity/ shame, Elise!"

[I] "...and Uncle Fanie? Is his leg a bit better?" Here, 'Uncle' is used as a deferential term in the same way as 'Aunty' is.

hom my liefde, hoor?" [J] My sister moves between Afrikaans and English, belying her South African English cultural roots in a community in which she has become "accepted" but in which she did not grow up.... like an imported garden variant of an indigenous bloom. "Elise, do you have the telephone number of Marika Engelbrecht?" [K] ...She is 'all English' now as her tone changes to 'business' mode. "Yes, my sister is staying with me at the moment. She is out here from Canada... yes, I am sure she is enjoying the weather... yes, it is very nice to see her. She is doing her doctorate at a Canadian university and she is out here looking at schools in South Africa.... ja, all our problems... ja, you are right... it *is* terrible! [L] ... Yes, so we thought she might want to see the rural school on Gerhart Botha's [M] farm.... Yes, I know the kids are still on holiday but I thought it would be nice if we could go and see Marika Engelbrecht.... she is the teacher there isn't she? Good, ... so I thought that my sister could meet with her and have a chat about all the difficulties she has to cope with as a teacher in a farm school here... ja, it is *terrible*..." I listen in silence to the objectifying discourse, with increasing frustration, as assumptions are made about the 'nature' of my research and about what approach I should take and what attitude I would necessarily be obliged to adopt ... presupposed, pre-conceived, and obviously the 'right' way, or the 'only' way, given the 'overwhelming

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[J] "...give him my love, won't you?" or "...give him my love, do you hear?"

[K] This is a pseudonym. This could be considered a "typical" name.

[L] As I see it, my sister was reproducing the prevailing discourse of the day, positioning herself as 'insider' to this community, rather than expressing her 'own beliefs'. However, I cannot claim access to what her set of political beliefs necessarily might be, despite my relationship to her, as we have had very different 'travels' outside of our childhood home. Nor is this the concern or focus of the point I am making here.

[M] This, again, is a pseudonym.

evidence' of 'poverty', 'simplicity', 'ignorance' and 'hardship'. "Ja, and perhaps we could go with Marika to have a look at the school... yes... no, it is not very nice, hey?"

Within an hour we had readied ourselves "om te gaan kuier" (the day devoted to the 'performance' of visiting: a cultural tea or coffee-drinking or meal-sharing 'ceremony' with its ritual of social graces), two sisters and their respective daughters: four women on a mission! The Land Rover was packed with the necessary supplies: a chicken for Tannie Venter, koeksisters for the van Niekerk's, building supplies for Oom Janse, a walking stick for Oom Fannie with the injured leg, and, of course, Ouma Toenie's famous 'melktert' [N] from the home bakery adjoining the local NG kerk (the Dutch-Reformed church – an ethno-national iconoclast to Calvinistic Afrikanerdom), for the visit with the Engelbrechts. Last of all, but of equal importance, the 'padkos'[O] was carefully packed onto the front seat: a bag of sliced 'biltong'[P], some dried fruit and a flask of rooibos tea [Q] to keep up the spirits on the long day's journey over rugged sand roads through the mountains.

The day was still young as the Land Rover engined its way joltingly over earthworm roads landmined with boulders and loose gravel. The sandstone mountains loomed into the day's early consciousness illuminating, in places, the hard protuberances of sedimentary rock layered in ancient textures of geological history. In the valleys, the light

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[N] This is a traditional custard pie and a popular desert dish.

[O] Food for along the road, i.e. refreshments and snacks for the journey.

[P] This is indigenous beef jerky.

was still soft, and pastel shades caressed the canvas with impressions of indigenous shrubs and shimmering gold veld. The canyons yawned their awakening with long tongues of deep shadow.

Every so often, as we jolted along, we passed by local Xhosa inhabitants walking beside the road or across the fields. These figures created focal points on the canvass of the veld, extending its imagery of repeating patterns, of uniqueness and ordinariness; of the known and the unknown; of earth and people. Some figures were that of women with their young daughters close by, wrapped in gray, brown and red blankets and carrying huge bundles of wood upon their heads. Although I did not see their personal hardship as being visibly reflected in their open, friendly faces as they chatted amongst each other and turned to smile at us, I tried to imagine, at that moment, the distance they already must have walked from early that morning, before the first rays broke the chill of night, to bring home firewood for the evening meal. Other figures were of young boys running... chasing their bleating goats into the pastures, or young men herding the white farmers' pure-bred cattle with their rippling russet coats, into the pastures. There was an exchange of greetings as we passed, as is always customary in rural parts.

The deeply imbedded familiarity of this rural South African scene and the intense beauty manifested in its unique and richly-woven tapestry of the local and the lived, struck a deep chord within me and I felt the surging joy of my connection with this scene, effervescing within, exploding into my consciousness and my sense of 'person' and 'place'. This exhilaration, however, was tempered by the contradictory senses of

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[Q] This is an indigenous herbal tea.

belonging; within and without-ness; 'insider' and 'outsider'; now residing in an-'other' geographical place, but born into this 'belonging'; having 'left and come back to' and having, in all its spiritual sense, 'never left at all'! Just as the textured images of chiaroscuro created life-patterns of light and shadow across this rural panorama, so I was encircled by the shaded/ing meaning-producing, sense-making images of my own ever-recreated/ing identity '*en*scribed' *within*, yet connected *through* and *without* this scene. I became aware, as I have before, with a deeper sense of knowing within the context of this moment of lived/re-lived experience, of the strength of 'the web' and of the inextricable 'interwoven-ness' of the aesthetic, the personal, and the political....

I turned my head... There was a tacit moment when the lights turned down and the scene changed. I looked into the interior of the vehicle to offer mugs of tea to two young cousins. At that moment, the scene outside imprinted itself in complimentary colours on the internal scene of the Land Rover, as my eyes attempted to accommodate from bright to dull light. Negative spaces were momentarily illuminated in luminescent colours. Strange juxtaposing shapes produced aesthetic oppositions and surrealist images *within*, and I realized, at that moment, how much I had been romanticizing and naturalizing the scene *without*. As the vehicle had moved along the road, I had been the audience to a cinema of passing scenes. I, like the early light of dawn, had invoked these images of the ordinary and the daily and had provided them with a prominence beyond their context in ways that exotisized them and produced a range of emphasis and silence as 'states of nature' [3], just as my narration of the scene has produced these continuums discursively.

My sense of the aestheticism of the scene, reinforced by my spiritual connection with it, served to *minimize* the relations of power referenced between the scene *without* and the scene *within*. I had been painting my own picture, figures on a canvass… not people. In the creation of personal art, I had normalized the conditions of being. Like the brushstrokes of dawn light that illuminated the domestic ordinariness of the rural day, I had painted the quotidian, the normal and the known from the palette of my personal history. The turn of head and scene-change allowed my consciousness to shift positions and reframe, temporarily, and to view with new insight the extent of the difference in material conditions of existence between the mother/daughter relationships outside, on the bright stage of the open veld, and those enclosed within the shaded auditorium of the motor vehicle. I had been both audience and actor, creating the spectacle I had observed: elaborator and recipient of my own performance!

The roads bifurcated into narrower farm tracks and became more difficult to negotiate until we reached a makeshift steel gate with wagon wheels propped up on either side, icons of the "Great Trek" pioneering history of South Africa, marking the entrance. At the Engelbrechts' farm we were soon welcomed by a cacophony of barking dogs and honking geese. Willow trees lined a muddy stream beside the sepia-toned farmhouse that spoke, in photo-images, of a boer history. A borehole was flanked by a creaking windmill, as prominent in its stature and importance to this rural setting where *drought* is the greatest fear, as the steeple of the proverbial Dutch Reformed church, which towers

above all "dorps"[R] of South Africa, symbolizing their communities' fear of a fearful God.

The "geselskap" [S] began in all earnest as introductions were made and we were escorted inside to a graciously prepared lunch, laid out on a large, elaborately carved, but sombre, mahogany table. We were briefly introduced to Xhosa servants donned in aprons and "doeks"[T] as they washed dishes in the kitchen or moved silently through the rooms with bundles of folded washing. They greeted us with half curtsies or clapped their hands together with a small, deferential nod, their eyes quickly lowering as they returned to their chores. They seemed to take up spaces of invisibility against the heavy Africana furniture in the rooms which seemed larger than life and awash with the overpowering light of broad day. The lunch ritual proceeded with 'grace' and the conversation fell to questions about Canada.... What was it like? ... Was it *really* better than South Africa? Wasn't it very cold? Didn't I miss South Africa? Where did I feel most at home? I bricolaged my way through the conversation, attempting to construct simple 'understandable' answers to complex questions for which I *had no* clear understandable

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[R] A 'dorp' is a small town, usually set in a rural area. There are particular historical features to South African dorps, most notably the prominence of their church(es), which, historically, are likely to embody the protestant or, particularly, the Dutch Reformed faith of many of the townsfolk. It could be said that they are often characterized by 'simplicity' and 'old-worldliness', and this is most likely to be suggested in the use of the term, 'dorp', in conversation in South African English.

[S] "geselskap": means 'conversation' in Afrikaans. As I am using it here, it is meant in the particular cultural sense of the joviality and hospitality which is invoked by a gathering of people in a community, and the conviviality expressed through this.

[T] "doek": South African English, from the Afrikaans, meaning a 'head scarf'. Traditionally, these 'doeks' have been worn by black African people across the centuries. In the colonial period, they came to symbolize the servility of black African women in particular. More recently, headscarves and headdresses are often worn by black African women in South Africa as a celebration of their African identity, and to disrupt the colonial association of a "doek" with a master/servant relationship. However, the wearing of "doeks" in the context I describe here invokes the colonial association and reinforces the servant status of these Xhosa women.

answers, with an increasing sense of alienation and frustration, which I was desperately trying not to show. I was relieved when the conversation turned to the breeding of oxen, its potential and pitfalls.

My daughter is silent throughout the conversation.[U] I wonder what she might be thinking about this cameo of South African life. What is she noticing? The contrast between the experiences we had together only a few days earlier in the city of Johannesburg and here, are marked… at least in *my* consciousness? We had just traveled from a national Mathematics Education conference held at the University of the Witwatersrand where we had been able to engage freely and openly with the predominantly black delegates in attendance, on equal terms with everyone. Here, in this context, the invisible presence of indigenous 'black people' symbolically reinforces their historical place of servitude. Now, 'they' seem so far away, so remote, and I cannot seem to find spaces of possibility for engagement… She excuses herself from the table to view the animals outside…in the harsh sunlight. My mind plays with the shifting realities…. Perhaps the animals are more real…

After tea and melktert in the lounge, we finally bundled into the Land Rover on our mission to visit the farm school, the highlight of the day's performance. It was then that Marika Engelbrecht began to tell me details about her responsibilities as teacher at the

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[U] Here, I move into the present tense. I use it as a stylistic device to draw attention to the different forms of experience we (my daughter and I) had in South Africa. Considering what my daughter may be thinking here, serves as a mechanism to reflect on my own thinking, outside of the context of the moment. It is as if this moment represents another 'scene' in the way in which the narrative performance plays out. It is a 'scene', not determined by the chronology of the narrative, but by the way in which it transcends all moments, supporting a more 'general' theme throughout the narrative/research.

school: that she taught approximately thirty students, (although they come and go at any time when their parents, who are all labourers and servants on local farms, migrate from place to place); that she was hired by the local white farmers to teach their labourers' children and that she needs to ask these farmers for any supplies and equipment she needs. She begins to tell me about some of the children; their ages; that they are many years older than the grade they should be in; and that they hardly ever pass a grade. She tries, she says, but it is tough. The highest grade she teaches is grade 7 and one of the learners is 18 years old... he will never make it... she has given up teaching him the syllabus, because 'he just can't do it'... his skills are 'too weak', especially with maths. She raises her eyes. "You know what I mean?" she says ... but it is *not* a question.

My position as 'guest' shifts as I move into the position of 'researcher'. It is not a complete move, because I am conscious that my position as guest, although now backgrounded, is ever present. I must be polite. I must not be "ongeskik of onbeskof" [v]. I am in no position to be critical or ungrateful. They are going out of their way to be hospitable, helpful... to assist me in my research. They 'know what I need', even though I have not spoken a word about personal philosophy... educational approach... theoretical framework. A notion of what I am here in South Africa *to do* has been accepted... assumed...interpreted. They seem satisfied. I know who they are, because I have been this way before... I am being recruited as a 'white South African' ... and a

[v] "ongeskik of onbeskof": This means: impolite/ungracious or ill-mannered. I use the Afrikaans here, because these sentiments have particular cultural and situational reference, in my experience, in the South African context.

"verkrampte" [W] one at that …my beliefs and values are assumed, and there is a common investment in it….

I feel my neck stiffen and my stomach become tight as the Land Rover jolts and jerks its way down the track. I am grateful for the movement because it makes me feel more in touch with an outer physical reality, as an opposing sense of remoteness begins to cloud my senses like a mist through the valley in the late afternoon. I stay my task, however, and begin to nod 'understandingly'. I am mute, but listening. She has all the space to speak.

We arrive at the school and climb out of the Land Rover to stand a while. There it is… an old mud-brick building in the middle of a vast landscape. Its simple one-roomed rectangular shape alludes to an era of rural missionary education, of 'civilizing' the Bantus [X]… a place in the present past…. There are no kraals nearby or suggestion of a settlement. I try to imagine where the children come from… over which little koppie they appear in the early light of day, little moving dots at first and then increasingly larger ones taking on the form of jolting figures … like an old-fashioned movie reel which is not tracking smoothly… running to get to school on time every morning. My mind records the scene, referencing old memories from my youth of running and playing with

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[W] "verkramptheid": noun ('verkrampte' (adj)). From the Afrikaans: arch conservatism, associated with, in the South African sense, racism and bigotry.

[X] Dictionary definition of 'Bantu': a member of any of a large number of linguistically related peoples of Central and Southern Africa. This constitutes more than 400 closely related languages spoken in Central, East Central and Southern Africa and includes Zulu and Xhosa. The use of this term has particular reference to Apartheid ideology in terms of the institutionalizing of 'native people' through a doctrine of Bantu Education, premised on the view of black indigenous people as "hewers of wood and drawers of water".

children from the kraal... I see no footpaths or tracks. Perhaps the children come from every which way, from different farm communities. But, I wonder how they get here, for in every direction I see the signs of borders [4]; wire fencing demarcating large tracks of land, farms and fields. I wonder how many farm and cattle gates they must pass through to get to school each morning. The school is surrounded by tall bluegums [5], their half-stripped mottled bark, reflecting the patchiness of yellow grass and bare red earth beneath them. It marks vicinity where animals and people have trodden frequently. In the near distance, horses stand snorting and swishing their tails to deter flies. Here the veld is tall and dry. I listen to the immense silence [6] for a moment, and the sounds of the earth fill in this space with the familiar gusts of wind through trees and the constant sing of insects in the heat. In the near distance, I hear Xhosa herdsmen calling to each other and laughing in conversation across the valleys and open veld. For a moment, I am lulled into the peace and calming beauty of the scene I have created with my senses, within myself, and before my eyes.

We walk through a little gate with an overhanging sign of wood on which the name of the school is carved in Xhosa. Marika climbs three high steps to the entrance and unlocks the heavy door. The wood of the door is split and patches of green paint are blistered from the intense sun that sears down, day after day. It scrapes noisily against the mud floor as it opens, tiring of its duties as it hangs from loose hinges. Inside the schoolroom, three rows of neatly aligned desks are the first impressions of the room. On each desk rests a bright orange plastic chair, inverted and stacked on top. The school chairs illuminate the gloom like beacons, marking the places where individual students spend their day in the act of being schooled.[7]

There are tall steel cabinets that divide the room into two classroom areas. Behind the cabinets are another set of desks and chairs. On the walls are brightly coloured posters with the letters of the alphabet or numbers, bordered by bunnies and flowers. There are depictions of doll-like children, all 'white', reading books and having conversations with each other, in English, about how they like to read. There are more colourful posters teaching gender difference... Western style: One frame reads: "I am a boy. My name is John", the next reads: "I am a girl. My name is Jane", with stereotypical depictions of a Caucasian boy, with commanding stature, smartly dressed in trousers and shirt, and a girl in a flouncy pink dress with a ribbon in her curly blonde hair. The 'boy' and 'girl' wear polished black shoes and white socks. These shoes have never walked for kilometres through African veld where the dry earth coats them with a film of fine red dust.... a dust that has a distinctive smell and that seems to become a part of your being.

Marika takes me around the room, pointing out teaching materials, seating plans and books. I look at the books in the small bookcase. There are very few of them. Marika tells me that she has bought them from secondhand bookstores with her own money for the school. They are mostly kindergarten level English reading books in large print and have been well thumbed over the years. They are published in the United Kingdom and depict scenes of white middle class neighbourhoods or English country gardens, European or North American animals.

The wind rattles the two small windowpanes framed in thick mud walls. I look out and see the sheen of tall dry veld as the wind ripples through it in the deepening afternoon. I

see and feel the absurdity of the contrasting images within this rural South African context. I hear and feel a deep silence... I say nothing....

"Come, let me show you." I hear Marika's voice. She takes me to an enclave in the room. It is the little 'office' area. She shows me her teaching materials. There is shelf upon shelf of textbooks and dictionaries, little cardboard boxes filled with neat flashcards, counters and other homemade manipulatives. Everything is "netjies" [Y] and well ordered. It is organized and filed with tremendous care and I can see the hours of laborious and detailed effort that has gone into preparing each small item. She tells me how she uses her teaching materials in the classroom and her dark brown eyes are alight with pride in her work. I begin to feel a strong affinity with this person as a 'dedicated teacher'. Is it that I feel the connection through 'common understanding' of the context of teaching, the many hours of devoted effort, hoping that it will help some young people in their educational path and their personal, spiritual growth? Is it that I recognize her pride and the pleasure she experiences in her personal efforts? My heart warms to her, but it is fraught with discomfort and ambiguity. I am caught firmly in the web of dilemma, of the kind I was to experience many times throughout my period of research in South Africa, as I have been many times before. It is the kind of dilemma which is invoked by my very

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[Y] "netjies": this is the Afrikaans for 'neat'. I have used the Afrikaans here to refer to a cultural orientation of this condition of neatness. It evokes an image of 'orderliness and neatness', which has political reference to the dichotomies, set up by colonialism, of 'the civilized' and 'the uncivilized', of 'order' and 'political chaos'. It connects with a previous remark regarding 'efficiency' in the colonial enterprise of 'civilizing' 'the Heart of Darkness'.

Nevertheless, I also acknowledge that this may come across as reflecting cultural bias on my part as an English-speaking South African. Although I have used the Afrikaans to evoke this image, it is a trait which is not exempt from English - South African colonial culture and speaks to the ideology of 'order and control' as a broader complex of our colonial history.

presence in context. 'To be' a South African, 'to be' within a South African context, is to be instantiated in dilemma.

We walk back into the classroom space and I look again at the metal cabinets dividing two classroom areas. I ask about it. It is then that Marika tells me that she works with another female teacher who is Xhosa. She had not mentioned this before. Her name is Nombolelo.[Z] While Marika teaches one subject to older students on the one side of the room, Nombolelo teaches the younger students on the other. Then they swap over for another subject. "But I teach all the maths," Marika says, "because Nombolelo tells me that she is uncomfortable teaching it [8] and that she would prefer me to teach it. I don't mind. So I agreed." "Did she say *why* she felt uncomfortable teaching maths?" I ask, but Marika looks at me quizzically as if she is unsure why I am asking 'the obvious'... I feel as if I am being made to feel a little 'ignorant'. Nevertheless, she answers. "She says she doesn't feel secure in it. She doesn't know it that well and she feels she is not properly prepared to teach it.... But, you know, the thing is, she is fully qualified... she got her teacher's certificate at the local black college here..." Marika goes on with a sudden need to 'clarify' things for me: "It is interesting, though. I find that she teaches by writing sentences on the board and then the kids have to copy it down. She doesn't explain it to them. They have to be quiet and just copy down. Otherwise, they have to repeat it to her, over and over, so that it becomes a sing-song... just repetition... no explanation... but, she has *recently* been qualified, so I don't know what they taught her in that college, but that is the way she does it." [9]

[Z] Nombolelo: this is a Xhosa woman's name, used here as a pseudonym.

This was not the first nor the last time I was to hear this kind of discourse on black teachers in South Africa. It was a discourse which inhered in 'historical deficit' and 'inadequacy'. The frequency with which I was to hear it was such that it located a discourse of "Truth" beyond itself that was self-perpetuating and seemingly impenetrable and immutable. It made me realize how difficult it would be to provide any criticism of teaching methods in "disadvantaged" or "historically black classrooms" without feeding directly into this discourse.

So powerful was this discursive repertoire on "disadvantage" with regard to "education and training of black teachers" and the "crisis" which this alluded to, that it became almost impossible to negotiate the terrain without falling into the paradigm of "deficit" and "disadvantage" oneself. The task of separating out the established "Truth" from the "socially constructed", whilst at the same time *not* "factoring out" the "fault" and laying blame, became a daunting one. It was one which caused/ was to cause/ does cause me great discomfort and difficulty in my analysis as well as in my personal, relational, moral and spiritual experiences. It is only through my "theoretico-personal" perspective which allows me to view all discourses of a micro-interpersonal, as well as macro-global level, as inherently political, socially-constructed and relative, (while trying to remain constantly reflexive and undauntingly vigilant of the power principles at play), that I am able to search, and occasionally find, a way ahead through the minefields of hegemonic "truths", conflicting realities and contradictory perspectives… albeit that it is with a difficult gait!

"Come, I will show you their class books," Marika says. We move two chairs to sit down at one of the tables and I immediately feel uncomfortable as if I have intruded on the students' space. 'Who is the student that sits here?' 'Should I be sitting in her seat?' 'Should I be looking at her books?' I contemplate this ethical dilemma, but Marika is already showing me some of "the work" she does with them. "They have to do a course on technology.... This is all I could do with them." She shows me a small exercise book. It has nothing written in it, except one paragraph on the first page. It has been copied down from the board in the neatest handwriting. It constitutes some theoretical definition of a machine. "What can you do if you don't *have* any technology. None of these kids have ever seen a computer, let alone touched one!" She goes on: "Even if we were donated one, we have no electricity here." She shrugs, but she shows a deep frustration.

I feel her frustration, but the other voice of my education calls me to account: What about the technology of the pencil? In what different ways might we be able to think of the pencil as a tool for empowerment? What tools preceded the pen that have local significance and which set up lines of communication to which society at large is indebted? I think of school trips to nearby caves showing ancient Koi-San rock paintings. How exciting would that be? In my mind I see the cross-curricular/ interdisciplinary potential in it. What else could come from that? And then, what about a student-directed project to build a machine with full class participation, encouraging student input on design, procedure and creative thinking? ...It needn't *be* elaborate.... but, it could *become* elaborate... allow for that possibility! Perhaps one could start off with simple tasks of designing and trying out lever and pulley systems. One could start from the

home [10]. Is there anything similar that the students and their parents use or need at home or in their surrounding environment? How can this be developed and extended. Then move outwards.... move forwards... not according to a "progressivist" prescription of "educational success" within an Euro-centred/Western "resource-based" framework, ... no, not that kind of 'forward', but one which *re-sources* existing potential, harnesses contextual possibilities to overcome contextual limitations....

My mind has wandered... Marika is showing a student's mathematics workbook. "You see there," she says, pointing to some names posted on the side of the metal cabinet dividing the room. In the half-light I see a list of about eight names arranged in hierarchical order. They are categorized into three groups and there is a break between each group arranged from top to bottom. Marika points to the name at the top of the rung, the 'juxta-positioning' of the top and bottom names visually pronounced by the distance between them. "This is my best student in maths, but they all struggle... Some of them are very weak. I have three groups of them... the better ones, the weak ones and the weakest group..." I knew immediately that the hierarchy referred to students' 'mathematical ability' before Marika informed me. I have never seen the hierarchy so blatantly represented and open to public scrutiny before, but I have been down this path sufficiently many times in the past, in different contexts, in my experiences in secondary and tertiary education, to recognize the power of mathematics to divide and categorise people according to social constructions of 'ability', class, gender, 'culture', ethnicity and place. It is a divisive power that traverses contexts, having few contextual variations. The variations occur mostly in the mode of the expression of them, i.e. the power of the silence is heard in the extent of its visibility. It either *visibly silences*, as represented in

the hierarchy of names on display in this farm school, or it *silences* through *hiding* the relations of power invested in its differentiating practices.[11]

"Why do you put their names up on display like that and why did you choose to place them in three groups?" I hear myself asking, but my voice seems to come from another place and it sounds flat and without resonance. In my mind I play back what I have said like a faint echo, but the emphases are different to their internal meaning, the meaning in my moral being. The question sounds clinical and flat. Am I simply 'researching' this, or am I a part of this happening? But the internal question seems to fade into the ordinariness of the day. Marika, unsure for a moment whether my question might suggest an oblique criticism, hesitates for a moment, but my eyes show nothing. Reassured by my expressionless demeanor, she answers and, again, it is as if she is telling me 'the obvious'. "The names are there so that I can see who is in which group. I get the ones that are at the same level of understanding to work together so that they all know what to do. I don't want them all to work together because the weakest ones will only hold the better ones back. Sometimes the weakest ones work close to my desk. They need the extra help, but sometimes I have to just get on with the syllabus. I can't always wait for them to catch up."

Marika points back to the exercise book. "This is one of the better students' work", she says. "He is in grade 7 now." Marika turns the pages for me to see. I see pages of columns of neat well-written answers. There appears to be no scribbling, no 'mathematical workings', no 'attempts' visible in the writing. At a cursory glance, I do not see any obvious errors. It appears to me as if errors have been carefully eliminated so

that the book presents neatly. No questions are written in the exercise book in support of, or to contextualise, answers, … only answers…. columns and columns of *answers*. 'Order' rather than 'learning' appears, as a first impression, from my perspective, to be the primary focus. Is this what the student has internalized, I wonder? What does school mathematics mean to him? Is it all about 'giving the right answer', about being 'wrong' or 'right'? Is there a condition of 'seeking', or 'finding', or 'coming to know'? Are there any other transitional states of being? Are there other forms, other representations? How does mathematics appear 'to be'?[12]

The book falls open onto a page with a neat column of numbers connected together with equal signs. The column goes:

1. 30 = 15
2. 12 = 6
3. 10 = 5
4. 6 = 3
5. 14 = 7
6. …

I can deduce from 'the answers', (which must be the number to the right of the equal sign), that the question asks of the student "to find a half of the following numbers" in true repetitive task-driven mathematics textbook style.[13] The question has not been written in. "I did this with them in class. I had to show them how to do it because they are very bad with fractions," Marika tells me. As it stands on the page, with nothing to contextualise the use of symbols, the statements seem absurd. Thirty does *not* equal

fifteen![AA] I feel a twinge of anger! How ridiculous this 'mathematics lesson' appears to me.

I see the student sitting before the page, perplexed, confused.... Trying to make sense of what is on the page... being told, that this is "how you do it" and not knowing why... why mathematical symbols are used one way in one context and another way in another context, for no apparent logical reason. The logic of the schema used remains with the teacher. What a strange subject mathematics must appear to be! I hear myself speaking... "Might it not be more useful to rather let the students write out the full statement: ½ x 30 = 15. This would allow them to appreciate the concept of an equal sign as a 'balance', or at least to show that the left hand side of an equation should be equivalent to the right hand side in terms of the 'weight' or value of each side, and that this can be reversed. Here, they are using the equal sign as a 'connector', simply to connect an idea on 'the left', to an idea on 'the right', and only in this direction, so that confusion may arise when using the equal sign in its proper mathematical form when dealing with algebraic equations, not so?" I hear my voice echo: "...in its proper mathematical form when dealing with algebraic equations"...

[AA] Again, I am not trying to construct Marika's practice *in general* as deficient in ways which support simplistic dichotomies of deficiency within disadvantage and enlightened practice with advantaged communities, but to draw attention to *an* observed practice, or a set of practices, which, I believe, may be alienating to learners within this context. In fact, I have observed this 'mis-use' of the equal sign in teaching practice, in very similar ways, in mathematics classrooms in an 'advantaged community' in a Canadian context. Nevertheless, I acknowledge that my comment may have come across as judgmental, and that I may have sounded authoritative by carrying the authority of expertise in this specialist discipline of mathematics, despite the use of 'friendly' speaking tones. This is regrettable.

I am immediately sorry! I hear how it has come across, 'purest' and authoritative, as if I am the 'all-knowledgeable' teacher, speaking down to this 'other' teacher because...I 'know better'? ... why do I assume I 'know better'? Is it because she teaches in a farm school and has only taught in a farm school, and some of my teaching experiences have been in more 'successful' or 'advantaged' contexts? No, it is not just that... Or, is it that I am aware of the 'discrepancy' between us with respect to 'knowledge of mathematics' as a discipline. Is it about certification? Am I not simply reproducing the hierarchies in the social domain that relate 'educational qualifications' to 'knowledge' and the authority or 'right' to speak, to tell, to know, to know 'better'. No, in fact, it is none of these in particular, although all of these are present in the textured space of the event and the context, acting subliminally yet powerfully. Nevertheless, on a personal level, it is primarily about my own frustration at seeing students taught mathematics indifferently... seeing, remembering, feeling what it is like... believing that it can be/ should be 'better', whilst being conscious that what I said would not come across in that way, but as imposing, judgmental and superior.

My sister, who has been standing on the other side of the room in conversation with Marika's husband, now stops and turns her head... surprised to hear my voice, to hear me saying so much... and, so suddenly, about mathematics! She has never heard me speaking about mathematics before. This is a side of me that she has never experienced, Dalene as the 'voice of the mathematics teacher'. The flow of events, the stream of 'the normal', has been disturbed by some hidden force... .a force from outside the circle of relations here, today, at this moment. I see her deciding to walk out of the classroom so as to stand outside and wait for me. Marika's husband follows.

Have I disrupted the cordial relations, broken the rules of some agreement? Have I failed to recognize the implicit rules embedded in the text of the event, like the hidden threads of a web that hold you to the conditions of the context, the same invisible threads that establish what is acceptable, what is 'done', what is 'appropriate' and 'normal' to that context, I wonder? Or, as my sister's experiences of mathematics at school were very negative, is it a subliminal aversion to mathematics, to hearing 'it' spoken... and by her sister?

Marika takes a few seconds to answer me, but I can feel that she has taken up my remark in the way that I had feared... I can almost hear her thoughts about 'this 'uitlander'[BB] being pedantic about an equal sign when she has *no* idea about the difficulty of the context of teaching here'... "Yes, I suppose I could, but then they would have a lot more writing to do, and they never *said* anything about not understanding it," she says.

I feel frustrated and disillusioned with her remark. Firstly, what is wrong with writing more mathematics? Is there no process of learning which takes place through writing? [14] More importantly, how are students, whose mother tongue is *not* English, supposed to tell a teacher that they do not understand when there is nothing provided to them as a basis to

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[BB] 'uitlander': Afrikaans for 'foreigner' or someone from outside the country (often used by Afrikaners to refer to new English settlers in the 1800s). It suggests historic prejudice against 'outsiders', perhaps most especially those who are critical. In my travels through South Africa during my research, I often found myself being positioned, temporarily, as a foreigner who has 'lost touch with the South African context' when I posed a critical/ contradictory opinion, and as a 'fellow South African' when I was in agreement. These were consensual and differentiating codes in operation, albeit that they were often subtle. This refers to my contradictory states of positioning across contexts, through residing in another country. These criteria for positioning had not been previously available when I was still residing in South Africa.

explain the 'non-understanding'? If mathematics has always been presented in a way where the sense-making criteria, and the concepts which provide it with interconnectedness and permit transfer, have not been made accessible, how are the learners supposed to articulate this with any coherence? Surely, there needs to be sufficient familiarity with other ways of viewing mathematics, speaking about mathematics, writing mathematics, to be able to engage with questions about understanding. A movement is required which locates mathematical discourse as a school subject that is not only about "how to do it", but more about "why and how and what does it mean." If mathematics has been learned as a subject that presents itself as a string of task-driven procedures and disassociations, how are the students able 'to know' what it is that they do 'not know', that they need to ask? ...

The *silences* within *silence* are very difficult to read... to 'know' that they exist in non-existence, and my mind starts to see the problem as a matrix of infinite 'cul de sacs'...I feel like I am being pulled into a vortex and then thrown out on some invisible 'other' side into a dead space of dreaded silence... Marika turns the book to the last page, but she has gone silent too.

I hear the sound of the paper as the page turns. There is a long pause and I notice that the wind has stilled outside. The smell of late afternoon, of cooling earth, seems to find its way through the door. Outside, I hear the horses, anticipating the time when they are to be fetched and taken home. There is a long whistle in the distance. I haven't heard that sound clip of a South African rural setting in so many years. The horses move again. One neighs. Marika gets up. Before she closes the book, I see a column of tiny diagrams of

shapes and solids. On the right of each is 'the answer' or a space where the answer is left out or is unknown. A triangle has 'no answer'. Next to the square is the word 'skwar' which has been marked incorrect with a neat red cross. A circle has the word 'sirkel' next to it, and it too has been marked with a red cross. A cylinder has the word 'trapezium'[CC] next to it, correctly spelt, but it has not been marked. I wonder why? I wonder if there had been any discussion to separate out 'incorrect spelling' in English, from 'incorrect mathematical' concept.... But, I say nothing... I feel defeated!

Marika carefully packs the book away in a hand-made side pocket made from checkered red and white cotton. These pockets are all the same and hang neatly from the side of each desk. Each student's set of exercise books can be kept inside the pocket at their desk. I recall these pockets from when I was in grade one, nearly thirty-five years ago. It has been that long and it brings back a memory of my early schooling, of 'order' and 'discipline'.

Marika gets up from her chair and, as if she feels she needs to clarify the context in which she works, she begins: "You know, it is not always easy... it is really hard trying to teach these kids. It's the language and the poverty and the differences in age and they come and go as their parents move. When they come here from another area, from another farm school, their standard is very weak. Sometimes they come with certificates saying that they have passed grade 4 or whatever, but I don't know what their teachers are doing

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[CC] 'trapezium': referred to as a 'trapezoid' in North America, 'trapezium' is used in most of Europe, the U.K and South Africa to refer to a quadrilateral (four-sided, bounded figure) with at least one pair of parallel sides.

because there is no way that they are up to grade 4 standard. Then there are others, some of the older ones that shouldn't be in school anymore, that come here and they are not interested in working, in learning anything, they just look for trouble. They have got an attitude, you know. Like there was one boy; he was eighteen years old already and he just sat at the back of the classroom and he used to just look at me. I tried to get him to do some work, to listen to my lessons, but he was very lazy and he didn't want to work. And then at break time, he would talk about politics and try to get the other students going... to try and cause dissention amongst the students. I tried to tell him to stop it and not to be a troublemaker. But he would just look at me with that look...." Marika stands at the black slate board at the front of the classroom and looks down, arranging the white pieces of chalk in a long neat line.

"Then I had to go and tell the farmer in charge here, Mr. Vincent, that this boy was using politics and trying to cause trouble with the other kids. I couldn't work like that any more. It was going to start affecting the other kids and my classroom control." She pauses, then goes on: "The farmers were furious and they had a meeting and so they got together and arranged to take this boy off the school property and they gave him a good sjambok [DD] to teach him his lesson." She pauses again and I feel her looking into my face. I show nothing....

"Then later the parents complained and it was a big thing. The education department inspector in charge of this region, a Mr. Mokalo, he came to speak with me and

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[DD] Sjambok: It is a leather whip, traditionally (African) used for herding cattle.

investigate the incident. I told him what happened and he agreed that I was in the right. They had no claim because the sjamboking took place off the school premises, but the parents had lied and told him that it was done *at* school and that I had caused trouble and had arranged for the beating. Mr. Mokalo agreed that it was not done on the school premises and so, I was cleared and that was sorted out...." Marika faces me, as if she is looking to me for understanding, or empathy. She continues, more emphatically: "But the boy came back to school for a while and one day he walked up to the board where I was standing... and he came and stood *right* next to me in front of the other kids and I felt threatened. Ja, and he said to me that I was a *racist*, ja, to my face... that I was a *racist*, and I said to him: 'I am not a racist. If I was a racist, I wouldn't be here trying to teach all you children...' "

Outside, I hear my sister and Marika's husband laughing in conversation. Their voices are closer now as they come back into the room: "How is it going?" my sister asks. "Ready to go yet?" I get up from the school chair but my legs feel like they belong to someone else, someone walking the dark tunnel of the past, some former person I was, reliving old experiences of my own early schooling, of the ideologies of Christian National Education, of threat and fear and hatred, of authoritarianism and verkramptheid and dogma and mindless ignorance. I feel nauseous... that old, familiar taste of Apartheid!

"Ja, I think we are ready to go", I hear myself say. "Ja, we are done!" Marika echoes and makes ready to leave. I hear the familiar sound of her keys to the school door scraping the desk. I replace the plastic chair on the desktop and, for a passing moment, I have a

connection with the student who sits there. But it is an unfulfilling one. I feel a sense of inadequacy and defeat, like I have taken some of the student's life story with me, but was unable to give back, to make a difference, to provide a small space… just the tiniest space… just a little spark of hope! The circle of oppression is complete.

On the road again, the conversations were familiar and 'normal' as if nothing was amiss, as if the story I had just heard from Marika was simply an ordinary piece of fabric that was woven into the tapestry of daily life, fitting into its place so perfectly, so resignedly. I wonder, as I watch the passing scene of distant foothills and undulating fields in the mottled light of late afternoon, what it is that produces the conditions of normalcy, acceptance and uncontested terrain. What produces contexts of limitation and impossibility? What does it take to create the kairos of hope and constructive change?

On *what* passing wind and *when* will the seeds of social justice and mutual respect find a fertile place to take root? How many generations will it take before the force of change will set the stubborn and inert cogs of passivity and acceptance into motion? When will the place-dependent, taken-for-granted assumptions about conditions of being be held up for scrutiny, be re-imagined, and become contested?

I realize that it cannot begin in one place only, but that it must begin in multiple places at once and allow for multiple frames of reference. Where can it be found? Does it lie with the land; the streaks of hard light that provide the days with performative possibilities and that reify the quotidian of this rural life? Perhaps not, perhaps these rays merely spotlight the local and the everyday of this land-locked rural setting, making it unique but ordinary,

specific but assisting in reproducing the same conditions of 'normalcy'. How can new conditions of normality be created? How can we, in this place, (re)gain our integrity as a society, a people, a nation, anew? How can the filaments of a trans-human moral conscience be fused and ignited? Perhaps it is in the people? But who will be the ones to set the fires of possibility and hope on the open veld of despair and acquiescence? *When* will there be a readiness and from *where* and from *whom* will it come?

We arrive back at the Engelbrecht's home as the shadows of the coming dusk seep into recessed spaces of the land and herdsmen chase livestock back to their corrals for the night. The farewells are being made. Marika tells her three-year old daughter to run inside and fetch a loaf of home-baked bread for us from the kitchen...as a farewell gift. "Baleka, baleka!"[EE] she cries after her, with large gesture and a loving expression on her face. I am filled with a great strangeness! I see the person that I think is Marika: the loving mother, who speaks to her own child in an indigenous African language... not her mother tongue... the language of her students! I see the teacher who, believes she is doing her best, is proud of her work, who, in accordance with Education Department requirements, teaches her students in English! I see her as another human being like myself, with the same human potential for pity, remorse, conscience, empathy... *and yet*... caught up in the reproductive power of our shameful history! I can see that she wants reassurance from me... from teacher to teacher... that she wants me to say that she is doing a fine job and that I admire her for what she is doing under such difficult circumstances... but I cannot! I feel as if I have failed her because I cannot be gracious

[EE] "Baleka": Xhosa for 'run', as in 'hurry up'.

enough to say it… to mean it! And yet I know that she too, within herself, carries her own silences, adding a silence to my own.

Inside, the anger and disappointment of Marika's narrative is still burning, in another silent dark place within me, as if it had always been there as a glowing ember, but had been rekindled anew. It comes from a long dark tunnel of memory back into the past, hidden deep within the layers of fleshy earth, embodied within my other identities.

The Land Rover engine starts up, jarring with the peaceful sounds of the farm. The route back to my sister's home seems so familiar as if I had traveled it a thousand times before. But we take a detour and stop off at the Vincent's farm. I am reluctant to visit after having heard Marika's story about him and the local farmers' brutality to the young Xhosa student, but my sister has to deliver something to his wife from the Engelbrecht's.

The Vincents are English speakers. They are better off than the Engelbrechts and this is reflected in the appearance of the two farms, most especially in the elaborateness of the Vincents' graceful home. We are invited in. John Vincent graciously ushers me into the lounge and hands me a glass of sherry. His wife immediately goes to find my daughter some books to read, and some puzzles and games lest she become bored with the adult conversation. He asks me about Canada and I tell him that the weather conditions are quite livable. He tells me about his relatives in Canada and the conversation turns, inevitably, to politics. Through the route of South Africa's 'woes' and 'problems', he

begins to tell me about his role in the political arena.... that he was asked by the ANC [FF] to represent this region, and he sat on the council and assisted in decision-making processes about regional poverty and upliftment... about the national ideals of reconstruction and development... and again, I could only be *silent*, listening, wondering, trying to piece and paste elements of the two narratives about this person together, to try and make sense of the senseless.

How does the violence and violation of rights stand up to a nation's attempts at reconciliation, moral rectitude and healing? How strange the contradictions seem. What an eclectic montage of contrasting images thrown together in antagonistic profusion? Can a coherent, Gestaltian 'whole' be found; can the sense-making connections be established from the severed parts, from the disparateness and fragmentation?

I looked within myself. Why had I been so silent throughout? Why had I not spoken back in an attempt to disrupt the taken-for-grantedness of the narrated events played out before me? Was it that these events had become a performance played out before me and that I was drawn into a view of my role as a non-participatory member of the audience [15] ? Was it because I had walked this road before and the conditions of silence are so deeply

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[FF] ANC: The 'African National Congress' is Post-Apartheid South Africa's ruling party. The ANC led the liberation struggle and was instrumental in enabling a change of government and the first democratic elections for South Africa. Initially banned by the then ruling Nationalist Party from the 1960's until it was unbanned in 1991, it would have been unusual for a white farmer in a traditionally Nationalist strong-hold to have supported the ANC prior to the elections. Further, as the ANC promote reconciliation and a democratic multi-racial South Africa, the actions of the white farmers in taking the law in to their own hands in 'disciplining' the Xhosa student, would be in direct violation of the established principles of the ANC and a new South Africa. Vincent's leadership role within a regional ANC council is therefore all the more contradictory given, according to Marika's story, his apparent unorthodox approach to dealing with the farm school student issue.

established in the psyche from early in our lives that we automatically begin to play out the acquired behaviours expected of us? Silence is a condition of learning 'to be', made normal by the context, the people and place that produce the silence as an accepted and appropriate text of 'being'. I wondered if that was it! I feared this silence greatly!

Was 'knowing my place' or needing to be a 'polite guest' being evoked by the historical and cultural elements of the context? Or, was it that I was playing out 'the objective researcher' who was silent in 'his'[GG] observations, simply watching, playing dead, denying the participatory role 'he' had in the elaboration of events...

Or rather, was it that I had caged myself in by the theoretical proponents of my own critical awareness? Was I too aware and cautious of the unequal 'top-down' relations of power between myself, as researcher/narrator, and the 'subjects' of my research/ narration, to transcend it in this context, for fear of 'speaking back' becoming 'speaking down'? ...

Or was it, more dangerously, because, in this context, I felt that there was *no point* in commenting on, or challenging, the principles of what I had been told by the characters of the tale; that, in a sense, their stories were, perhaps, sacred to them and a part of their inner beings; that challenging some of the accepted 'truths' would not have been taken up well; that there was no invited space for contested terrain; that, in this context, there was

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[GG] I have used 'his' and 'he' here to refer to myself in the context of the 'objective researcher', drawing attention to the gendered nature, and in particular, masculine orientation, to the scientistic discourse on neutrality and objectivity.

no discursive possibilities or 'enunciative spaces'[16] for a transformative dialogue? ... and that I realized that the transformative potential lay outside the immediate context in another place where I may compensate for this silence with my own voice through a narrated tale?

To me, the most dangerous silence of all was that which was reflected in my own silent responses to the context of silence ... and, consequently, ever more urgent! How, now, do we (re)set a spark in the recessed places of silence left behind in the wake of the liberation struggle, the place where we overcame our '*states of emergency*' [HH]?

It was barely light when we reached the dorp. The moon had risen silently and was faintly represented on a distant dark horizon, marking the events of the day as a normal function of the continuous cycle of night and day. Reflected on its great white orb, the eerie light of the sun fused together the mundane, the ordinary, the local and the unique, in recreating and normalizing the conditions of the everyday ... *as states of nature*!

[HH] This is a play on the title of a well-known novel "States of Emergency" by recognized South African academic and novelist, Andre Brink (1988). "States of Emergency" is juxtaposed against the title and final words of this narrative... "states of nature". It raises the question as to whether our states of emergency and socio-political and pedagogic crises have truly been overcome, or if some of them have simply been recessed in problematic ways and in critical areas, becoming less urgent and more accepted as 'the way things are', as normal, as ordinary, and as the nature of the everyday.

ENDNOTES

[1] I introduce the concept of 'performance' here, in describing the 'everyday', and return to it as a dominant theme throughout this narrative, as a means to explore the relationship between the qualities of 'performance' and research, and to view discourse as 'dramatic event' and 'production' (in both the sociological as well as theatrical senses of the word), framed within the auditorium of 'context'. Derrida (1978) views discourse as 'spectacle', and it is this idea of viewing 'the everyday' as both 'ordinary' and 'unique', or 'mundane' and 'performative', which I am invoking here. Secondly, using 'performance' as a metaphor to examine the relationship between audience and actor in the elaboration of narrated events, recognises the moral and ethical dilemmas of *surveillance* in narrative research – who performs for whom, who watches and listens, who gets to describe about whom, and how is this framed within the context of *relations of power* between actor/audience, researcher/participant (or subject). Further, the idea of the *non-discursive* as possessing 'performative possibilities', *beyond* the discursive, is also explored. I use elements of nature and 'place', of historical consciousness and geographical location, of local conditions and 'natural cycles', symbolized by sunlight and times of day, to suggest this idea of 'creating the normal' through the performance of the everyday.

[2] In Joseph Conrad's (1969) "Heart of Darkness", first written in 1902, Marlow asserts that "what saves us is efficiency - the devotion to efficiency" (p. 53). This is in reference to the colonial and "noble cause" of "progress" and "decency", and the busyness or "real work" of civilizing the "wild savages", thereby staving off "The Heart of Darkness". I invoke this image in the context of the "warring impis" of political change in South Africa to draw attention to the colonial enterprise still at work here in this geographical/socio-political context and to the theme, introduced in the first paragraph, of the established and quotidian 'ways of being' which create *optimum conditions* for the (re)production of "acceptance" and "normalcy" in our society/societies.

[3] Foucault (1994), in speaking very broadly about the evolution of thought, language and knowledge across the ages, notes the impact on humankind of the development of a natural history, perpetuating and establishing a discourse of nature. He speaks about the classification and naming of objects in terms of a discourse of nature in the terms:

> This *a priori* is what, in a given period, delimits in the totality of experience a field of knowledge, defines the mode of being of the objects that appear in that field, provides man's [sic] everyday perception with theoretical powers, and defines the conditions in which he [sic]can sustain a discourse about things that is recognized to be true. (p. 158)

'Defining of modes of being' via everyday objects, providing a community's 'everyday perception' with 'theoretical powers', and the evoking of conditions which 'sustain a discourse about things recognized to be true', is synonymous with the ideas I am grappling with in terms of analyzing the creation and establishment of 'the normal' as 'states of nature' within an evoking 'everyday' community context and situated socio-political/ physical/ geographical location.

[4] The concept of 'borders' or 'boundaries' (or, at least, *bridging boundaries*) is a general (and personal) theme in my research work that extends across other narratives. 'Borders' are both figurative, as well as physical, and have powerful representation in the lives of 'disadvantaged' communities. Not only are 'borders' demarcations that restrain and delimit access to material as well as pedagogic resources, but their existence and positioning are also invested in power, as is their maintenance or demise across contexts and over time.

I use the description of borders of land here, as a metaphorical reminder to the reader of the historical colonial enterprise of the division of land and peoples. Redistribution of land and resources is a critical development and social justice issue, in the African sense, and it cannot be divorced from the broader context of political and pedagogic borders. In this sense, Apartheid serves as a relevant and pervasive example of the construction of socially-engineered divisions and borders which traversed psychological, sociological, historical, cultural, pedagogic, political, spiritual, moral and physical terrains.

[5] This is ironic symbolism, because the bluegums are *not* indigenous African trees. They were imported from Australia and often threaten the existence of indigenous vegetation. This is analogous to the imported colonial education exhibited in the farm school, which threatens African innovation and empowerment rather than facilitating it.

[6] On a primary level, this 'silence' speaks to the experience of the vast open spaces of the African landscape, its uniqueness and magnificence. However, on a secondary level, this is a contradictory 'silence', being both disturbing as it may be consoling. It points to the unease of this self-created experience of presence within a known and admired landscape, and it highlights

the haunting feelings of nostalgia I experience, and my fractured or contradictory senses of belonging. It also points to my awareness of other silent voices felt in the wind within a vast and changeable landscape, and to my own inner silence in attempting to deal with the conflicting emotions induced by the dilemmas of person and place.

[7] This symbolizes the individualized Western curricula, which have been imported to Africa through the colonial enterprise. It contrasts with post-colonial objectives of advocating 'indigenous knowledges', which espouse more inclusive, community-based ways of learning, (see Asante (1987)). The rupture between cultural community context and schooling context is another repeating theme throughout the narratives.

[8] The discomfort and insecurity, which Nombolelo spoke about as having experienced, was expressed to me many times by other black teachers during my research period. It was also related to me by educationalists in the field as a prevailing 'truth' and I address this issue again in a later dialogue (outside of this narrative). In many educational circles and in popular discourse, 'black teachers' in South Africa are often constructed in terms of disadvantage, which I argue serves to disempower them in the classroom and undermine their authority and autonomy. Later, I provide examples of discourse from interviews that attest to this blaming/ positioning of 'black teachers' in South Africa. I believe that professed insecurity, discomfort (and confusion about the expectations made of them through the Curriculum 2005 document) exacerbates 'black teachers'' position of disadvantage and disallows any platform for their and their students' 'success' within the prevailing framework.

[9] Behind the debate on the 'problem' of 'black teachers' in South Africa, is another debate relating to the nature of teaching practices, i.e. whether the *chanting* and *repetition* evidenced in rural schools represents 'African ways of knowing' and 'indigenous knowledges', or whether it is the product of colonial education and teaching methods used over centuries; a continuation of the legacy of 'Bantu Education' in South Africa.

Further, the fact that Marika is apparently *surprised* that Nombolelo is using these methods when 'she has *recently* been qualified' testifies to the prevailing discourse on teacher education of 'black teachers' in South Africa, where there is a spoken-about 'failure' in *transfer* of progressive teaching practices into 'disadvantaged' classrooms, despite teacher education colleges and

institutions' claims to embracing progressive methods. This is a source of much debate and research.

[10] I am aware that while I am problematizing Marika's approach as one which constructs the students in terms of inadequacy and deficit in ways which, I believe, limits and constrains them pedagogically, I am also putting forward, as an alternative, an approach which supports my own philosophy to teaching which I view as potentially more enabling pedagogically, but which I am aware is fraught with contradiction. The work of Paul Cobb, amongst other prominent examples, advocates for an inquiry-based approach as a fundamental principle to mathematics teaching. It is an approach that begins with informal, situational problem-solving which attempts to approximate the general life experiences of the students in the particular classroom. Whilst this approach may also be viewed, in part, as problematic in that it is premised on assumptions about student demographics, it does, make some attempt to provide accessibility and meaning, and, as its point of advocacy, attempts to empower students pedagogically in the classroom context. However, another danger exists with the issue of transfer and generalisability to other less accessible problem-solving situations, and I would only advocate this approach with the understanding that the *tools* for transfer and generalisibility were made available to the students through the process. (See footnote 11).

The purpose of my advocating another approach to Marika's, is not to fall pray to constructing her practice in terms of deficit, (just as she is constructing her students' learning as such), but to highlight that other possibilities can exist as a way forward pedagogically, and to show that she, *herself*, constructs her teaching situation in terms of deficit, disenabling any innovation or alternative approaches on her part. It must be noted, that I am not trying to construct a dichotomy of 'better' or 'poor' practice here, but am trying to draw attention to the possibility of 'leaping across the unimaginable', by attempting to create empowering possibilities of practice in delimiting contexts, and that the 'limitations' of context may well be socially-constructed and controlled by imperialist/ global discourses.

[11] Certain tenets of progressive education lay claim to inclusivity through the myth of recognizing the 'diversity' of learners in ways that makes assumptions about students' 'needs' and what may be 'relevant' or 'appropriate' forms of learning for them. Very often, these claims are supported by 'constructivist' approaches to teaching and other cognitive ways of viewing learning, such as those frequently espoused in research and educational discourse often gleaned

from the research work on 'multiple intelligences' (Gardener, 1983). In this way, by laying claim to the existence of "gendered" or "cultural ways of knowing", (as has become prevalent in the rhetoric of progressive education), and connecting this with particular 'culturally-specific' types of 'intelligences' from a palette of 'multiple intelligences', the teacher/educationalist can lay claim to what the students' 'needs' are in accordance with their socially-constructed 'culture', 'gender', 'ethnicity', 'background' and 'experiences', (as innate psychological capacities), thereby differentiating her practices in the classroom. Whilst the principle of power remains with the teacher/educationalist in '*knowing*' what then is considered 'appropriate' or 'relevant' to the socially constructed students' learning, this power is recontextualised within teaching practices. In this way, disadvantage is (re)produced for those constructed in terms of 'social difference' (from the alienating perspective of the dominant culture of the schooling context) and advantage for others, in context.

Skovsmose and Valero (2001) discuss claims that mathematics, in particular, has/ can have 'intrinsic resonance' with democracy. They provide some of the reasons usually given to support such a claim. (They also discuss counter arguments examining mathematics' 'dissonance' with democracy). The first set of claims facilitate the view that mathematics, through utilitarian ideals in promoting 'technological progress' and 'social advancement' through technology, can empower and liberate societies. This argument is contradictory as the very mechanisms that connect mathematics to a 'use value', within a non-neutral social domain, are the very mechanisms that assist in (re)producing the divisions and locating individuals within associated social hierarchies, rather than liberating them. These contradictions and divisive criteria are obfuscated within the rhetoric of inclusivity. For example, Skvomose and Valero (2001) refer to these justifications as being associated with the idea that: "Mathematics Education contributes to the technological and socioeconomic development of society. It contributes to society's political, ideological, and cultural maintenance and development, and it provides individuals with prerequisites they may need to cope with life in its various spheres (Niss, 1996)", p. 39). This is certainly *not* a mathematics which is able to challenge its 'relevance' to 'various spheres' of life within a hierarchized social domain, nor one which empowers through *contesting* cultural imperialism! (See also Bishop, 1990). In fact, in my opinion, the alignment of mathematics with these ideals, *without* a critical examination of the underlying principles of power invested in such assertions (and without considering the problematic nature of mathematics' position of power in the hierarchy of social discourses), is utopian, and is more dangerous than helpful to the cause of social justice.

[12] Is this evidence of an implicit message that mathematics is the determiner of right and wrong in ways that transpose themselves onto morality and conditions of being? Protected by an 'ideology of certainty' (Borba and Skovsmose, 1997), has this representation of mathematics as a self-appointed 'judge of objectivity' and hence 'morality', permitted critical examination? Has the jury of scientists, social scientists and educationalists assisted in the criminalization of learners of mathematics, rather than question the credentials of 'the judge'?

[13] It is also interesting to note that only positive integers, which are divisible by two, are used in this 'exercise' so that there is no immediate transfer available to numbers that do not satisfy these conditions or to 'real-life' situations where these conditions *may* possibly become available.

[14] In this last decade, there has been a plethora of research in the mathematics education field on the use of writing as a tool for learning mathematics. Examples include the use of narrative writing and personal journals which are often advocated as 'progressive methods' for teaching mathematics. Other related research might refer to making connections between the way in which students present their 'thinking' in mathematics and the concept acquisition process or 'understanding'.

[15] This would be in contradiction to a view of research as co-performance (audience-performer) (see Denzin, 1997, p. 4). It is an interpretation of research which 'blurs the boundaries' between audience and actors that I wish to achieve here. A tension exists however, where the 'elements of the everyday' do not confer on the audience their raison d'etre or defer control over the elaboration of events. Nevertheless, a concept of narrative as being co-created would facilitate a view of joint control by audience/ author and actors over its interpretation.

[16] 'Enunciative spaces' (Weedon, Tolson and Mort, 1986) might be understood as transformative places of possibility where re-visioning, re-imagining, and re-articulation of other alternatives can become legitimated.

FISHES AND LOAVES:

A PARABLE OF "FAILURE"

This autobiographical narrative serves as a reflexive and critical exploration of context and ideology in informing pedagogic practice in mathematics classrooms, most especially in contexts that do not represent the "ideal classroom" as framed within the hegemony of globalized/ globalizing discourses. The parable of "fishes and loaves" is used as a metaphor to explain the complex nature of mathematics teaching in a context of constructed "disadvantage". Through the narrative, certain critical contextual dilemmas are introduced which highlight the problematic nature of certain educational agendas that do not consider the act of teaching in terms of 'contexts of possibility and limitation'. Two opposing ideologies are introduced in context: that of 'Africanisation', with its celebration of African epistemologies and ideals in a post-Apartheid South Africa, and that of neo-liberalism, which serves to undermine rather than facilitate the ideals of 'Africanisation'. However, neo-liberalism often becomes subsumed within Africanisation. The narrative sets out to illuminate how progressivist approaches to mathematics teaching are, therefore, ineffectualized or made redundant in classroom contexts representative of "impoverished communities", where these approaches are conflated with neo-liberal ones. Consequently, in such contexts, 'disadvantaged' learners experience disempowerment and pedagogic impoverishment rather than socio-political, economic or pedagogic liberation.

> "And Jesus went forth, and saw a great multitude, and was moved with compassion toward them, and he healed their sick...
> ... then taking the five loaves and two fish, Jesus looked up to heaven, and blessed, and broke and gave the loaves to his disciples, and the disciples gave them to the crowds. And they all ate and were satisfied."
>
> Matthew 14 (St. James version).

"Imizamo Yethu" they call it...

"Imizamo Yethu", which means "all of our efforts"...

But I wonder? ....

Within the sunken recesses of an imposing indigenous landscape, there is a place which breaks through the integument of a magenta-soiled Body-Earth. It is an eclectic montage of corrugated iron and hardboard, splitting the brush strokes of nature to expose its grit and bone... it is *the skull of my country*, its lived and unlived moments, bearing the teeth marks of a protracted history of Oppression, a peopled past-place of pain and Struggle.

Its name is "Imizamo Yethu", but the locals call it "Mandela Park" with affection and pride, suggesting through the many typifications of "African poverty" and "disadvantage", the hope of a new life, of a new South Africa. This hope is embodied in the name of Nelson Mandela, who visited this informal settlement during his presidency soon after this country's liberation from Apartheid. To many of its residents, Mandela Park represents a place of contestation over land and resources. To others, it represents a place of unity and a spirit of reconciliation and transcendence... To some, it is a place of possibility to develop a new "African" identity, where indigenous knowledges may be

advocated and brought to bear on the process of Africanisation. Yet, its material poverty stands in symbolic irony to "the people's power".

At night the fires glow with an inward life through the indigo shapes of makeshift-shacks and fibrous brush, and the sounds of Africa are borne in choral cadences on capricious winds that sweep this rugged peninsula. The messages of disparate voices are lost in gusts of incoherence, and I can hear, with certain clarity, ONLY the force of the silences. I look into this palpable organ of a people's hope, ... but I feel also its dark disappointments.

It is from this place, this informal settlement, that the children come... and they walk many a mile to a community missionary school, (which I will call) 'Visserman's Baai Laer' (Fisherman's Bay Elementary). Perhaps, they come in the hopes of some divine miracle that one-day they might be able, through their education, to rise above the material and historical conditions of socially-engineered "poverty", beyond the land-locked, community-locked localities of established "disadvantage" frozen in time? Or perhaps they come because this school represents for them a place of "belonging", a self-reproducing demarcation of a "disadvantaged community"? Perhaps it is a retreat where all children "are equal in poverty", a "protected" place in which they may assert the wealth of their humanity, divorced, *momentarily and contradictorily*, from the outside conditions of a world which "others" them and holds them to their prescribed spaces of "deficit" and "disadvantage"?

This time I was entering the community as researcher… examining pedagogic contexts of "disadvantage", scrutinizing the relationship between discourse and practice in mathematics classrooms, observing the relationship between the way in which certain groups of students are constructed in terms of social difference and the kinds of pedagogic practices in mathematics that are afforded them. I was looking for evidence of the "construction of disadvantage" and the "pedagogizing of difference". The theory was all neatly laid out and, notebook in hand, I was ready and eager to enter the classroom as academic observer.

And so it came to be that I found myself in the midst of "the multitudes", a class of fifty grade 7 children from Imizamo Yethu. Their teacher had *already* abandoned them for more than three weeks, but they came to school nonetheless. And I can only assert that they were compelled to come, NOT by the promise of empowerment, because the paucity (or non-existence) of subject-based knowledge mitigated against this, BUT by a sense of commonality, of community and the knowledge of a "place of belonging".

I had a choice… I could have left the classroom, left the school and moved on to another school where my classroom observations would have been more "productive" in terms of the issues I wanted to address… the observations that fell neatly into my research categories, producing a seamless theoretical exposition and analysis. … But I couldn't… I could not avoid it. I could not bring myself to stand idly by and watch the waste of children without education. And the old rhetoric of the Liberation Struggle reverberated in my skull… "Liberation BEFORE Education" they chanted… and I ask you what use is this form of "liberation" *now* WITHOUT education… a contradiction in terms, indeed!

Behind the skull of Apartheid, lurks vestiges of the old, so-called Bantu Education, an "impoverished" form of the *already* limited Christian National Education with which we were all indoctrinated, as children of the Apartheid state. Bantu education was imposed on black African and so-called "coloured" children…the future "hewers of wood and drawers of water", as the Nationalist government liked to refer to Black labour in those days. This biblical reference of woodcutters and water carriers was, at that time, a hallmark of an ideology, which viewed black African people as inferior and only capable of menial labour … and *the legacy of the system remains.*

"Would you like me to teach you some mathematics?' I offered. "Ja, asseblief, mevrou! Ons sal baie daarvan hou! Ja, asseblief mevrou!" ("Yes please ma'am, we would like that very much!"). They began to dance in their desks with excitement at the prospect of learning something… something *new* perhaps?, perhaps learning something *differently*?, learning something from *me*?, or perhaps… just learning *something…anything…* I was moved and heartened and I began to bless and break the bread of my mathematical knowledge, my own empowerment, and divide it with affection and compassion…and I broke of this body to give of the light and joy of this subject I loved so much…offering it in tasty morsels… this was *surely more* than mere fishes and loaves!!

And I saw those glimmers of light, the kindled glow turn from inward to outward, and flickers of understanding pass across the intent faces of these psychologically-abandoned, pedagogically-abandoned children. And after a while, the children began to answer my questions and even *to ask* questions and participate in the discussion, giving meaning

through their bodies, giving back unsparingly of their enthusiasm. I was greatly heartened as I saw this as tremendous "advancement" in such a short time. For children that I had witnessed as having been exposed to nothing but transmission, rote-learning and proceduralism, (on the occasions when they were exposed to subject learning in the classroom at all), this was an "opening of minds", an "awakening of spirits", a "pedagogic achievement", a "progressivist success".

I was elated... ecstatic! I was performing a miracle... I was proving that the miracle was possible; that my miracle could set a spark in the dry veldt of despair and disillusionment and would Light the Dark and heal my whole country with a Sanctifying Fire. And just when we were about to consecrate the communion of Mathematical Thought, ...there was a Divine Visitation.... The door swung open and a child entered. He handed me a crumpled white bag and was gone as suddenly as he had come....

A cloud passed over the sun and, through the broken panes of the classroom window, the streaks of golden sunlight dulled and disappeared. The atmosphere cooled; the mood of the children changed.... And then there seemed to be a movement, indiscernible at first, and then ever increasing, a spiraling force drawing the atmosphere inwards, like a vortex, deep, downwards ... into what I was holding.... *a crumpled plastic bag*! The children began to move around in their desks in agitation. They were no longer focusing on the mathematics we had been doing... just the bag in my hands. The moment of Mathematical Mastery, of Conceptual Glory was shattered!

At that moment, I did not know what was happening around me… *I* was now the one without immediate understanding, although, on a deeper level, having grown up in Apartheid South Africa, I recognized this as a 'possibility of context' all too well! Nevertheless, I must have shown shock and confusion in my face. "Dis die Appeal , mevrou! Dis die Skool Appeal, dis ons kos van die Appeal af!" ("It is the Appeal, ma'am, the School Appeal. It is our food from the Appeal,") they let me know, moving from their desks in an agitated dance towards me… towards the bag. "Watter 'Appeal' is hierdie?" ("What Appeal is this?") I asked in confusion. And they told me in Afrikaans: "It is the white people, ma'am, that give us our school lunch. It comes from the children in the privileged schools, ma'am. It is for us, ma'am." Their hands began to touch on the sides of the open bag, to touch my hands, to look inside the bag. Was there enough food today, perhaps? No never enough! I looked into the bag and saw a few sandwiches and fruit… white children's discarded lunches that had been collected for the day and brought to the school under the guise of "assistance" from the surrounding community. "Asseblief, mevrou, gee vir my. Ek is so baie honger vandag!" (Please, ma'am, give it to me. I am so hungry today), they told me, competing with each other to gain my attention or to catch my eye, so that I may take pity on them over the next. I realized that I had the impossible task of having to decide who eats and who goes hungry that day. Everything had seemed to change… or had it? I had offered to teach these children mathematics; now I was expected, to preside as judge and jury over their bodies. I was no 'liberator" or Great Redeemer, but an *accomplice*… coerced into the discourse and practice of Oppression!

The rules of the discourse of mathematics had shifted to a new discourse whose dominant and uncontested rules won the day. Instead of providing these children with

empowerment through access to the "regulating principles" of school mathematics, I was trying to bricolage some moments of pedagogic meaning.... draw some understanding from the context to enable a way forward... impossible! I realized with an Illuminating Light, that I was *no* Messiah. I could not provide the miracle of "fishes and loaves". Just as I was not able to perform it pedagogically, so I could not break up the sandwiches and divide the fruit equitably among 50 children so that they all may be satiated. Some would have to starve and who would those be?

For a fleeting moment, I heard the voice of the progressive mathematics educator: "Draw on the life experiences of the children to help them concretize their mathematical thinking and see relationships between mathematics and real life, to see the relevance of mathematics to the real world." In this context, under these circumstances, what utter useless rhetorical nonsense! The children already *knew* that the principles of divisibility would not work here, just as I knew my inadequacy in providing the Miracle of Divine Multiplication.

White chalk dust from my fingers billowed in a fine mist as the movement of small black hands over mine disturbed it. For a moment it clouded the view of the contents of the bag and I thought I saw through the mist, the *skull of my country* looking back at me... and in it was *my own skull*... I had tried to provide a skin over that skull, to give it substance and embodiment through my own mathematical empowerment in a context where pedagogic possibilities are reduced to the rules of "poverty". What did I think I was going to do? What Messiah did I think I was? Was I going to "uplift" this community, provide their children with the pedagogic promise of something "better" than fishes and loaves?

What "good" did the patronizing offer of food for "disadvantaged learners" do for this community's educational, political and socio-economic empowerment? In what way did my actions or those of the other do-gooders address the structural and material conditions of the lives of the children and people of Imizamo Yethu?

I began to divide out the fare in the classroom, desperately trying to find some rule of fairness to apply to an unjust task, ever aware that the broader injustice lay outside of the classroom, impinging on it.... The school classroom, intentioned as a place of *pedagogic empowerment*, became a place of *pedagogic impoverishment* and one where the throttling rules of poverty reproduced themselves and were well learned and established!

... At the same time, in another very different community school, a few kilometers away, children were learning mathematics with a breathless urgency!

"Die kleinjies moet eers kry", I said. (The little ones must be offered first....) It was all I could think of. Was I trying to salve my own conscience because I could not find a fairer rule? Those respondents to the School Appeal who had donated the lunches, did they salve their conscience for the day? Could they see inside the classroom and view how their neo-liberal actions had played out? How teaching had been interrupted to satisfy more immediate needs in ways which reinforced dependency and held these people to their poverty. Had this helped to *uplift* a "disadvantaged community" or *establish* it? Was it facilitating Africanisation and empowerment? Or was it merely "fishes and loaves", a parable of "failure".

"Imizamo Yethu'', they call it…

"Imizamo Yethu", **ALL** of **OUR** efforts…

But, I wonder?

ROOTS/ROUTES

This acts as an articulation of a journey of many routes. It is a storying of certain critical research issues and events as performances of personal experience and lived context. The intention is to seek personal and political 'resolution' through a 'sourcing' and 'resourcing' of our knowledges, epistemologies and understandings, rather than validation through proposing 'solutions' to 'root causes' and 'core problems' which is achieved via a process of objectification, verification and analysis within a positivist (cause-and-effect) research framework. Alternatively, the storying grows towards transformation, transcendence and personal, political and spiritual renewal. It is a montage, or perhaps even more so, a métissage[1], of narrative and poetry pieces cohering around interrelated themes that find cohesion through fragmentation and coalescence, severance and re-growth. These themes are invoked by the relationship and inter-relationship of the metaphors of roots/routes, and the play on meanings through the play on words. The storying is a journey of seeking which calls forth, highlights and attempts to dislodge, or' root out', the dilemmas, contradictions, discourses and practices which emerge through many of the choices we make as we search or 'root' – like a wild sow in the sod - for routes towards transcendence, and we reflexively unearth our understandings of the histories, epistemologies, practices and prejudices of ours and other's roots/routes and routedness/rootedness. Consequently, these dialogues reflect on various issues and ideas associated with the sociology of power and the roots of discourses that delimit and differentiate, providing boundaries for some and possibilities for others; of the meanings of 'culture', 'identity' and rootedness; and of the search for routes towards roots and rootedness in routedness.[2] The dialogue also sets up a debate about the nature of transformation and transcendence beyond personal and political paradoxes informed by neo-liberalism and related repressive and globalizing discourses. Through aesthetic and creative writing forms and a more personal, descriptive and philosophical approach, I have sought to move, in a reflexive manner, beyond the delimiting roots of deficit discourse and its unrootedness with the daily, local and lived. Through the use of an alternative/non-traditional writing-research approach, I have attempted, through my storying to explore other, less objectifying, ways of being in research and to attempt to provide alternative pedagogies of possibility away from dichotomous discursive engagement and positivist approaches to research of this nature. By confronting the discursively and contextually constructed meanings of our knowledges and identities, and by attempting to 'resource' these through co-construction, co-authourship and 'humble togetherness' (or ubuntu[3]), the storying seeks to find a transcendent spirituality through the routes/roots of research, and achieve the emergence of mutually transformative possibilities through pedagogies of hope!

In the contradiction, lies the hope.

Bertholt Brecht [A]

She sat there in the classroom politely answering my questions. I could feel her wondering if she was "doing well", … or so I imagined, … giving me the "correct" answers to my questions and probably hoping that the interview would end soon. I felt, in this context, as if I was simply another added component, or perhaps agent, of her institutionalized life at the school… This was yet another "test".[4] Although I was making every attempt to keep the interview 'conversational' and although it was, perhaps, not quite the same as her daily experiences within the classroom, I could feel that she was, in this context, *resigned*[5] to this teacher/student, adult/child interaction. Nevertheless, I could also feel that she was *eager to be free* of the "great surveillance", the curious watching of her, like a creature in a laboratory, a subject of scientific experiment … "free" from this … as I am imagining it … this 'interrogation'… at least, until the school bell rang again tomorrow morning.[6]

It was a cool Cape afternoon. Slanted winter light fell through the mesh-covered windows, forming fine elongated patterns across the wooden desks. It shrouded the

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[A] Brecht, translated in Silberman, (2000, p. 148). Note that the translation I use here is the most prevalent one, but Silberman uses the more literal translation of "Contradictions are our hope" directly from the German: "Die Widersprüche sind die Hoffnungen". This is Brecht's epigram for his booklength sociological essay called "The Threepenny Lawsuit". In e-mail conversation with Dr. Silberman, he argues that the use of the plural for "contradictions", which is "widersprüche", conforms to Brecht's understanding of webs or networks of contradictions, as elaborated in his essay and elsewhere.

classroom as if in a film of gray gorse, blurring the definiteness of the objects of schooling in the room... obscuring any sense of Presence...any stark or all-encompassing Truth. In one sense, I felt uncomfortable and uncertain of the 'reality' of this context. Yet, I was also acutely aware of how *situated* this reality was and at the same time, in many ways, how it *resonated* with the alienating realities of many schooling contexts across the world. My senses were registering cues from the setting and the context that evoked, with a vivid recollection, the feelings and experiences of schooling institutions in the past and of the mechanisms of control and conformism, the long socialization and molding of identities.

From my trans-cultural location as a 'white' Canadian researcher, backgrounding my identity as a South African who has had experience in and with such communities, the recognizable specifics of the context of "disadvantage" were evident everywhere, embodied in the physical environment, inhabiting each insignificant corner, with an immediacy that is all-pervasive: mapped into the bleak walls; the old department-regulation school paint; the heavy wooden desks, pitted and marked; the institutional sounds; the reflected light, bounded and dulled; the lifeless colours; the tastes; the smells; ... the atmosphere.[7] Outside, beyond the textured space of the classroom, I could hear the raucous call of feasting gulls. With it came the stench.... The stench of rotten fish from the harbour wafted in fine, yet pungent, gusts through the window and infused into the atmosphere, an immutable element of the setting. And yet, being ever-present, it became 'unnoticed' by the repressive conditions of "poverty" and "disadvantage", which assists in the production of the accepted norm.[8]

She rubbed her knuckles on her thin hand placed neatly on her lap, her legs tucked to the side of the desk, crossed at the ankles where her short white school socks accentuated her bare legs … the hem of her school gym slip delineating the school girl from the young woman. She brushed back a profusion of curly dark hair that had escaped the restriction of her headband, - and from the gaze of one creating, writing and performing narrative towards the context of a Canadian audience and academic setting, - I notice her quiet beauty and dark brown eyes vividly reflecting her mixed heritage of European and African roots.[9]

"So then can you tell me why you are doing mathematics?" I continue with the interview, despite my discomfort with this role in this context, ever aware of the power relations instantiated in the act of interviewing… of (re)presenting, of the differential positioning between us in a historical context that has deeply embedded hierarchies of race, class, culture, age, gender…. ah! The *gender* was where I might call on some small commonality of experience, albeit reconfigured and partially…perhaps significantly distanced by class, experience, age, … 'race', … She lifts her eyes to me: "Because mathematics is very important", she answers in her "Cape Coloured" dialect, tilting her head to the side and pressing her lips together for the plosive "p" in the word "im*p*ortant" possibly to provide it with the formality and seriousness she thinks, perhaps I think, it deserves.

I can hear the external authorship of her statement she carries with a clarity of voice, as if she were the very first ever to say this, making sure she is "getting it right" for me, the "mathematics educationalist and researcher." I realize that I am caught in the web… the

web of pedagogic repression... and she is with me.... and, because I am caught in the web, she is enmeshed more firmly in *my* web too...webbed within a web... And I want to ask: "Whose webs *are* these... and how do we so easily become its victims?" [10]

Not knowing a way of extricating myself from the firm grasp of the sticky mesh, I continue to play the role. "Why is it important?" I ask, with assumed naivety. "Because it helps you with your *problems*", she says without hesitation, seeming to feel confident that she has learnt this splice of the "progressive education" text well, the recruitment (albeit one of misrecognition) of the utilitarian discourse on "mathematical problem solving" and its crucial connection with "real life", the rhetoric of the myth of "relevance"[11] alive at play... and of the popular discourse on *why* you must work hard at your mathematics, that it will pay dividends and uproot you from your "squalid life", your "poverty", the hopelessness [12].... "Make sure to do your homework like a good girl!" the Voice says, silencing other voices of contradiction, despair and frustration. 'Here lies the light of redemption and promise... a better future!'

"Why does it help you with your problems?" I continue. Is my voice a little detached, I wonder? ... I'm not sure... Is it, perhaps, that my voice is picking up the *disjuncture* in the fractured spaces between voices of dominance and silence, or is it continuing to *fall* into the *web of silence* itself ... a silence in the interstices between the human and de-human, the objective and subjective, the lived and unlived places of research and practice, theory and analysis? ....

She hesitates for a moment and bites her bottom lip. I see her rub her knuckles again – somatic messages, perhaps, of her psychophysical discomfort. And I can feel that she is not sure whether or not she got this answer "wrong" or "right." Wasn't her reply self-evident? Why am I asking her the obvious? Was I displeased with her, perhaps? I imagine I hear her voice in the tacit between asking and answering questions, wondering if she had not read the textual rules of the context correctly: "Wasn't that what I was supposed to say to a mathematics teacher?"

She tries again: "Because..." she falters... I see her eyes moving round the room as if to find cues from her environment to answer the question... searching for the "right" answer... knowing that she will have to 'guess it' again, but hoping to read my mind... read 'the teacher's mind', perhaps in the same way she has to do in class... learn the 'schooling schema', find the answer by looking *outward*, denying the *inward* one, because the 'inward answer' is *always* "wrong" in school. ...

Her eyes come to rest on the slate board.... They move away and connect with mine again, searching for the cue... A flicker of light! And her eyes dart back to the blackboard. What is it, what can she find to assist her on this Euclidean space of traditional institutional dominance in the room? ... I *too* look at the board. ... Our glances converge on the white chalk symbols pressed in powdered paste to this black, flat, unyielding surface looking blankly back at us ... The writing refers to the *Theory of Quadratics.* It reads: "If the discriminant is greater than or equal to zero, then the roots are *real*; if the discriminant is *negative*, then the roots are *non-real*; if the discriminant is a perfect square, then the roots are *rational*; ...", it goes on, line after line, listing the

conditions of the discriminant of the general quadratic formula and the *nature of the roots* of a quadratic function [13], in robotic style.... And in the clinicism of the moment, this sanitized "reality" [14], my focus waivers and my mind begins to abort this sterile two-dimensional image, block-framed in black and white. And in the stasis created by the vacant image, another takes form... one of the person ... Adriaana... in her home... We are just around the next street...

In the kitchen... Adriaana rolls up her sleeves to plunge her arm into the soapy bucket and spreads the contents in broad sweeps across the blue-patterned linoleum floor... She has done this many times before.... The tiny bubbles burst into life, all agog, but pop and disappear quickly with each stroke.... There is the familiar smell of 'Cobra' floor polish and 'Sunlight' washing detergent in the house... In the background, her mother is sitting on the stoep [B] with another woman, a neighbour, with green plastic hair curlers sticking out beneath a cerise nylon doek[C]. Adriaana's mother curses as she rubs bruises on her arm. She sighs, opening her mouth to expose her missing teeth: "Darrie blêrrie donnerse man van my... en darrie blêrrie bliksemse bran'ewyn bottel!" [D] Her voice is high pitched, but scratchy from cigarette smoking. ... Her neighbour responds empathetically: "Ag, siestog, Marietta, dis nie 'n lewe nie! Die blêrrie bogger!" [E] The sound of the kettle

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[B] Porch

[C] Head scarf

[D] "That bloody (darn) man of mine and that bloody (expletive – 'dam') brandy bottle!" The expletives 'bliksemse' (referring to lightning) and 'donnerse' (referring to thunder) cannot be translated directly. Usually, when used in reference to a person, they infer the meaning of scoundrel or blackguard, etc.

[E] Ach shame, Marietta! This is not a life! That bloody bugger!

boiling blots out the voices of the women in conversation and Adriaana jumps up to make her mother and neighbour some tea in pseudo-Victorian cups, faded and floral … this is no new scenario in her life! There are children's voices in the road. The fly-screen door screeches open, banging against crumbling and grimy brick corners, and five small children come bursting through the house…. Adriaana shoes them back out the front door… "Nee, nee, nee… gaan uit, gaan uit… ek maak die vloer skoon… waai nou!"[F] She returns to the kitchen to finish making the tea, … pausing for a moment to rub her knuckles….

There is a background noise in the kitchen, as if there is a radio on in the bedroom. … It crackles for a moment, … but I can hear the voice of Adriaana's mathematics teacher speaking in cadences… across the spaces of the many local contexts of this community… "You know, there are many social problems in this community… so it is very difficult… we have the problem with drugs and gangs here, and also there are a lot of domestic problems in the home and lots of alcoholism…. You must remember that there is a lot of domestic violence and then there is also a high incidence of rape in this community also…. And with all of this, the parents don't really care about the kids' homework, so we don't get the support from the community… that is why we get very bad results. And the department has classified us as a 'dysfunctional school' "…. the radio crackles again, but the transmission clears quickly… "You know, when people hear the name of our school, it sounds like an ordinary school, Fisherman's Bay High, but they don't realize that it is 'us', it is actually, Visserman's Baai Hoër, and we are not like other schools, we have no resources like the other schools and we are this problem community…" The

[F] No, no, no… go out, go out, … I am cleaning the floor, … go now!

voice of the teacher is overlaid with others, intertwining with a chorus of dominant voices of deficit. The teachers' voices sing in obbligato, above the heavy tones of this scene I have placed in performance in my mind, whose voice, as I see/hear it, is rooted/routed in 'the everyday' experience of Adriaana's life, … and that of her peers. …. There is a crackle, again… I hear the sounds of the Mosque… time for afternoon prayers… and I am called back to the immediate 'reality' of the classroom, and the white chalk symbols on the blackboard come back into view…

Adriaana is speaking. "You know", she begins, and then she constructs her answer formally for me as if answering a question in a comprehension test… "The reason why mathematics helps you with your problems is that it helps you …" she looks at the board for her cue, "… not to be *negative.* It helps you in *reality* to find a, … a *rational solution* to your problems", she says, looking at me with pride, appearing confident that she found, for me, the right 'mathematically relevant' connection. That should please me! What a clever girl! But she needs one more statement to reinforce that she *is* "right", "right" for me, for what the mathematics teacher and researcher wants. She wants to finish with aplomb… she looks back at the board… Heading up the stream of symbols is the word "ROOTS", thickly underlined in white chalk. She looks directly into my face smiling, and then pushes back her hair, ready for the final run….

And in dramatic and ironic conflation and misinterpretation of meanings which serve to provide a powerful and vivid articulation of school mathematics' mythologizing gaze and, consequently, of its *'unrootedness', 'misrootedness', irrelevance* and *irreverence* to the daily lived experiences of Adriaana's life, … she concludes:

"The reason why mathematics helps you with your problems is because…" she says with a flourish, "… because it helps you get to the *ROOTS* of your problem!"

Dark roots,

Like fleshy limbs,

Pushing into yielding soil,

Like a snake into its hole.

Roots,

Seeking solace beneath the earth,

Away from light,

Turning from "the gaze."

"Weeds! These do not belong here!

They're a problem. They must go."

I pull and yank the thick tenacious twines,

They resist!

I apply more force,

With two hands now… pulling upwards,

Towards the light...

They yield!

As they slip from their life source,

Their belonging place,

I see that…

They are not alone!

Delicately intertwined,

Are the roots of *others,*

Others I thought *worthy* of life,

Threaded together in mutual co-existence.

I had not seen them,

Hidden beneath the earth,

Their role and relevance…

So deeply embedded.

I judged on what I could not see,

I severed the coherence. I broke the web,

Flaying disembodied limbs of roots, unearthed…

Lost!

"You mathematics education researchers," he says, half jokingly. "I don't know…". He laughs and shakes his head a little self-consciously, … or to be polite perhaps. He knows he is positioning me now as one of 'Those'… making presumptions about me… He is congenial and friendly about it and I can see that he hopes I don't mind! …I *don't* mind… I understand and appreciate this in context of this cultural aspect of South African humour.

He had been telling me the details about his family's vacation to Australia and how 'nice' it had been. Through the manner of his 'telling' and the subject matter he evoked in the interests of being 'conversational', I feel that perhaps he is self-consciously trying to impress me about his 'transcultural capacity' and his transnational perspectives and experience, responding to the 'expected gaze of whiteness', embodied by my 'white stranger' presence in this context, by attempting to 'prove' his sophistication: 'well-heeled, well-traveled and well-educated!'….

His manner comes across as charismatic and conversational, and he speaks only in English, in distinctly elocutionary tones, compared with the accent and dialect I had heard him using to other staff members, borrowing from, or converting entirely to Afrikaans. Now, … in his office - the principal's office, … face-to-face in this context, … he has switched codes, … perhaps in an attempt to recruit criteria to establish *sameness* with me … locating 'common' codes to engage in consensual discursive rituals… perhaps to evoke some *commonality* with 'whiteness' and 'social/intellectual class', in terms of which I am now being positioned.

From my perspective, in this context, this seems to work in consonance with a linguistic distancing of himself from his "Cape Coloured" roots, in trying, as I interpret it, to 'survive' the commonplace 'white gaze' on 'the other'. I interpret from these cues that he is attempting to divest himself of the constructions of 'situatedness' and 'poverty', and, with it, the repressive localizing discourse of *race and place* undergirding contexts of "disadvantage" such as this one, acutely evident, from an 'outside' perspective, in the immediate physical and pedagogic spaces within and, even more so, without this room.

I read his *acting out* as reaction to the *caging in*, the subjective positioning according to the historical rules of the hierarchy of Apartheid still inhabiting the (inter)textured spaces of this local context. Nevertheless, I am aware, from my perspective, that this is *not* counter-hegemonic text and, as I am experiencing it in this context, it is fraught with *dilemma* and *contradiction*.... It is the kind of dilemma in which I, again, become simultaneously the catalyst, the unintentional perpetrator (by my presence in this context) and victim-producer.

A woman enters the room carrying two steaming cups of strong tea in clinking china cups and places them on one end of the principal's desk. She is the 'tea girl' and 'cleaner' and wears a pink and white stripped nylon housecoat similar to those commonly worn, to this day, by domestic workers in many white, and now some 'black elite', South African homes. "Oh, Lillian, so you managed to find another cup... baie dankie, né.[G] " He returns to his conversation as she quietly exits. She smiles at me before she leaves... I feel like a 'house guest'. The principal of Visserman's Baai Laër (Fisherman's Bay

[G] ... thank you very much, hey ('eh) !

Elementary) assumes his previous posture, cross-legged, casual, glancing pensively out of the window from time to time as if considering some idea of great import that requires astute decision-making on his part, … or so it appears to me. My mind is registering: "perhaps that is what he *wants* me to think…. because of this context, and in relation to it, what he perceives me to be."

"All these new methods and this progressive education thing … ", he continues after a long pause, "… and these kids *still* don't know their times tables! So what is the good of all of it…?" At first, he assumes the posture of someone in debate, but then he jumps up and starts to stride across his office, gesticulating as he talks. I sit on the other side of his desk as he performs for me, explicating his argument against progressivism in an extemporaneous and agitated dance. "When I grew up, we did it by rote, and *at least* I can work out my budget and do multiplication without having to reach for a calculator… But these kids today, if you ask them what is two times seven, they don't know…." He goes on: "But we have to embrace this progressive education thing…"

My mind is trying to reconcile this outburst against progressive education with the very traditionalist and procedural practices [15] I have evidenced in the classroom. And I am trying to provide it with political place and voice. But where *is* this voice coming from and why? And how does this measure up to the practices I have observed within the classroom? Is this a debate he is opening up and can I answer back, … should I answer back? Or is this a one-way transmission, a route to a cul-de-sac? And where and how come is he making the assumption that I am an *unquestioning advocate* of progressive education? Is it something that I said … or something that I appear to be or appear to

stand for? And so, I begin to see where the thread of the argument is going, and in it, I think I see the source …

I realize that this statement has more to do with his positioning of me as "a white South African mathematics teacher, or *even more* so, a white Canadian researcher", and his own relational positioning in this context, and in the take-up of these positions, (that is, how they shift and are reconfigured and established in a local context within a broader context of constructed "disadvantage", and of the other social domain discourses which inform it), than it is about the pedagogics or politics of educational progressivism itself. The motivating principles lie in the multiple voices, authorial and distal, that overlay and undergird the present context, and contextual agency is *rooted in the routedness* of the argument… in the network of dialogues that construct and assist in the maintenance of the discourse of "disadvantage" itself. I infer from this that the meaning lies, not in any "truth" of the statement itself, but *behind* this "truth", in the interstitial spaces of silence within a broader structure, that either obscure meaning, or generate other meanings, … meanings seldom straightforwardly articulated.

And despite this … for a moment … I want to ask what I think are crucial questions, which, for me, highlight the contradictions of the statements I have just heard from the principal of this elementary school. I want to ask him, why it is, that, from my perspective, I have not *really* evidenced any real attempt to engage in any progressive education practices within these classrooms… why I have seen *so much* rote learning… when any pedagogic learning took place at all… or why I have seen, from my perspective, so much apparent indifference…. why it is that corporal punishment is still

used here, when it has been made *illegal* to engage in physically punitive practices in South African schools.... why so many of the teachers are so seldom *in* the classroom when the current National Minister of Education, Kader Asmal, has made urgent and repeated appeals to teachers across the country to take their jobs seriously for the country's sake, for the sake of our youth and the future generation of South Africa now in creation? Where does the proverbial 'buck stop', who is responsible, who cares, why not, and how can we make a difference? I want to ask him why he closes the school early so frequently, causing very small children to have to walk home alone, often unescorted back to their homes in the informal settlement where they are not attended to or protected because their parents or caretakers are at work? Where does his responsibility to the community end ... or where does it start? Why does he use class time to have meetings with his staff, and why so frequently is learning interrupted for apparently, *from my perspective*, inconsequential issues? Why does he legitimize teachers' missing classes by engaging in these practices himself? Why can't meetings take place after school?

I think of how the school day ends at 2: 00 pm sharp, 1:00 pm on Fridays, and how the gates are bolted and chained by 2: 05 every day, 1: 05 on Fridays, after which an unnatural silence pervades the school grounds. I think of how the school day ends early on days when the staff attend workshops run by the provincial department of education... and I see them all climbing into the school's mini-van, apparently eager to attend, waving and smiling at me as they drive off together: "*Wonderful* workshops!", they tell me, "with innovative ideas on how to teach mathematics... and some good progressive techniques!"

Again, as I have felt many times before, a strangeness and awkwardness overcomes me… and I begin to feel a sense of alienation and hopelessness!

And yet, a part of me wants to speak out. I want to tell him what I think. I want to tell him that I think it is not right. That this is 'just not good enough'! Is this what we were all liberated for…? Wasn't it to try and make a difference, to turn it around, to 'fight the good fight'! … Not to give in to oppression; not to submit to the authority of poverty and consequently the authority of privilege that establishes the poverty; not to succumb to the worst form of oppression, in Freirian terms, when the oppressed begin to oppress themselves….

I want to ask him why? Why he is not seeing it, why he is so bound by this model of oppression, this discourse of poverty and situated experience that he cannot step outside of it, even for a moment, to see what it is like…. Is it that poverty is so rooted in 'situatedness', that it is so delimiting, so strangulating, that we cannot create even a momentary spark of insight? Does it require a stepping aside, a looking awry, a new platform, another place, a firm patch of new ground, to find it, to visualize it, to imagine? …Does envisioning require the separation or abstraction from local context and its firm rootedness to be able to provide perspective, generate new interpretations and conceptualizations, provide them with the flesh of real hope, of tangible possibility? ….

And then the blinding moment of anger passes… and I am back within this situated reality… I look out of the window… I see two girls scuffing their shoes in the red dirt… the dry dust rises in a small wisp of smoke… then one girl suddenly grabs the other girl

from the back by her hair and pulls her down into a kneeling position. There is anguish on the victim's face… but she doesn't resist. And it appears to me that this, or more, has happened to her many times before and she is no longer indignant, resistant, affronted… was she ever otherwise given the space to be such, I wonder? Her hopeless resignation angers me…

I jump up and move to the window looking down onto the scene in the courtyard, the crisscrossing Euclidean grid of the window frame between us… the bully turns her eyes towards me and looks through the pane/pain… looks through her own pain … even with a blank undaunted stare… staring into my face contorted with a horrible mixture of anger, disappointment and pity… The Principal sees my reaction and he too jumps up to have a look at what I am looking at… He swears under his breath in Afrikaans… "darrie blêrrie boggers van graad sewe kinders… uit die blêrrie klasskamer alweer" [H]… his composure is broken, the posturing has disappeared… we are back to the immediacy and brutal 'reality' of the moment… and partially recovering his previous tone, he relays to me in English: "Their teacher isn't here again today", as if I might not have known this self-evident piece of information. "Excuse me a minute", he says brusquely, and walks hastily out of the office, across the courtyard, up the steep steps and stops in the open doorway of the offending classroom.

From my visual perspective, the classroom behind the principal's dominant form is dark, unseeable and formless, like an auditorium when the lights have gone down - ready for the performance… a performance on a 'stage-in-the-round'. The two girls have already

[H] Those bloody buggers of grade seven children … out of the bloody classroom again!

disappeared back into the same room … caught out … scampering, like a pair of frightened rabbits back into their dark burrow… I can see the principal shouting and gesticulating threateningly. He is silhouetted against the dark doorway, delineated by the door, and through the windowpane I can hear nothing of what he says… there is only silence… and it is loud in my ears… it is as if I am watching an old-fashioned silent movie, being played out before me … a performance in silence on the theme of silence, … visible, audible silence, …

I stand silently in the room, waiting and watching… waiting for the principal to return. The clock on his desk ticks quietly … time passes…

I am trying to comprehend the scene… I think back on what precipitated the current chain of events, to make sense of it. I think of the two rabbit girls scurrying away when the Voice of Authority entered the scene… I am a schoolgirl again… waiting in the principal's office… I am remembering the fear of bullies … bullies that took all forms… classmates and teachers… I am remembering the smell and taste of fear … the fractured, brutal, images of authority and its violent sting… I feel the same sick feelings coming back… deafening fragments of memories. I feel like a bewildered animal caught in the headlights of this strange blinding reenactment of repeated repressive realities….

At that moment … and it was not an epiphany … but a slow blurred form taking root… re-rooting in my mind. It was a slow re-realization of what I had done by wanting to 'speak out' and to tell this principal that I thought it was 'just not good enough'. … It was a re-cognition of my *own* voice of violence… of what brutality I had done in feeding into

the discourse on "disadvantage". I re-realized that my thoughts, framed within the discursive roots of my socialization, my education and knowledge, my own perceived empowerment as an adult, and my experience of teaching within the context of privilege – which, through the temporal and spatial, defines the moment and place of poverty, subordination and oppression – had established that "disadvantage" as "plain to see".

I began to re-realize that in my initial thought-words of anger, I had been taking on the colonizing voice which produces the deficit, and that creates, validates and establishes 'the problem' from outside… from a place out there that can speak unmonitored by its own surveillance… I had been doing the same thing as that which I had surveyed in the courtyard. I was producing and reproducing the very conditions that produced the bully/ bullying in the first place, ensuring its reproduction… through my own voyeuristic perspective and reproductive deficit language, albeit a silent language of thoughts.

I too had become a bully. I was complicit with a system or discourse and a well-entrenched paradigm of thinking that constructs "the problem", establishes the 'truth' on 'deficit', and *lays blame*…

I realize that my vantage point was at fault. That, in the contexts in which I had practiced my profession as a secondary school mathematics teacher in independent schools, the practices I was criticizing now would not have been possible… that teaching time was sacred, important, urgent and that time was of the essence, a resource of which there was never enough… From *this* vantage point, I notice the inversion… and the contradictions…

In a context of privilege, material resources are endless, … paper, equipment, classroom space, computers, libraries, photocopy machines, photocopy assistants, new technology, availability of resource materials, curriculum materials, pedagogic assistance, all within a community of Pedagogic Knowledge Experts… but time was a precious and limited resource, urgent, sought after, coveted… here it was the opposite – confined space, discomfort, lack of privacy, lack of expertise, lack of pedagogic support, noise, dust, the smell of dust … too many bodies, huddled bodies, wriggling, no space to think, no space to prepare… but… all …the… time… in …the… world…in a sort of time-warp… in a mental, psychological, sociological, human landscape of *foreverness*…

These are the power principles that inform not only the political gaze from the perspective of the self, but also control the distributions of the spatial/temporal dichotomy and that define the political economy of context by assisting in the production of the poverty/ privilege hierarchy, and which define the roles of subjects in context…

These are the principles of the politics of context that either delimit or allow spaces of possibility in accordance with the social division of labour of discourses (Bernstein, 2000) in the social domain in which the discourses of context are invested … discourses which depend/ suspend entirely on the stringently policed rules of relations of power…

This is how the principles of 'progress' operate across the temporal and spatial, in the race towards 'future advancement'. And defined by its own rules, it ensures *very few* 'winners', and *many* 'losers'!

I hear the deficit voices again… bullying voices… some voices of educationalists, specialists, and well-known people in authority in South African Education… people in the 'new arena' of post-liberation education… people I interviewed… "The problem lies with our teachers… they are underqualified, demotivated, lacking experience and expertise… and there is not enough of them… our failures in mathematics can be directly attributed to the teachers… *they* are our problem…"

I realize that in my own way, I was feeding into this, re-creating this monster, re-establishing this deficit discourse… I realize that in creating the teachers, principal and their pedagogic practices in this "disadvantaged community" as *lacking*, as the "real problem", it was an escape, … a way of not facing up to not understanding… not seeing the source of power and how it threads its way into the repressive web…

Yes, I had become the bully. And the bully in the courtyard was as much, if not more, my *victim* of constructed "disadvantage" and the pedagogy of pain and poverty that it produces, as she was a bully in herself. The principal was a victim of it too, and I had not even *begun* to imagine the strangulating and delimiting conditions that this discourse served to produce and in which he was constrained to operate. This was the 'pedagogizing of difference' indeed, and a discourse in which I had participated. This was how the construction of disadvantage begot pedagogic and contextually produced disadvantage.

The principal came back into the room, looking a little harassed. A 'sideshow' had interrupted 'Our Performance'[16] and had seemed to detract from 'the conversation'. But,

in fact, it was a critical fragment of the whole.... a necessary contribution to understanding the resolution of the narrative, and in which our initial 'polite' conversation preceding 'the sideshow' had been the essential exposition. I, myself, had moved through several modes of *looking*, premised by various experiential podiums of perspective... Consequently, when I had been angry and critical... my vantage point had been the context of privilege in which I had gained much (although not all) of my teaching experience... when I had overcome my anger and realized my role in the co-constructed authorship of power ... I had returned to my early youth and to remembering... remembering what it was like to be bullied and to feel the hand of violence and the voice of humiliation... and it was only *then* that I could begin to understand-feel with a *deeper listening*.

It had required a range of senses as it had required a shift in perspective. I had moved from a 'looking on' and the voyeuristic power instantiated in perspectives of 'seeing', to a 'listening to'[17], where the eyes are quieted by the sights and sounds within darkened silence, and the sense of hearing is peaked...tuning *into* silence...

This had been my route.... Instead of trying to find the "root *of* the problem" and trying to "root *out* the problem", like a cancer from living tissue, instead I was moving towards searching for "*the source*".[18] The source of the problem lay silently *behind* the construction of "the problem" itself and threaded its way, like a tributary, to my very doorstep... I too was complicit, a collaborator of deficit discourse, a root of "the problem's" routedness. Now I became responsible as well, through acknowledging that responsibility.

The I-you dichotomy had been broken by the emergence of a new bond of responsibility … a *humbling togetherness!* I needed to *listen* collaboratively to that "source" in collectively finding a way together of "re-sourcing" towards non-impoverishment, other possibilities and mutual healing.

On yet another level of perception, both ocular and audible, I realize that in my criticism of the principal, I had been *not only* engaging in the reproduction of master narratives on poverty and deficit that lays the blame on the victim and not the discursive power base that establishes it, *but also* in the reproductive (re)creation of "Truth", or verisimilitude.... and that the 'truth' about the black teachers in South Africa was an act in the creation of a simulacrum. Where to now in re-routing towards re-sourcing the discourse?

Back in the office, the principal begins to speak again: "I have six out of eighteen of my teachers away again today and it makes it hard for me… I have so much work to do here, but I must keep on running back to classrooms to sort out misbehaviours… I can't go and teach them… I know I should, but I have too much work here to attend to, but I can't get it done anyhow because of all the interruptions...." "I hope I am not bothering you", I say immediately and stand up to leave. "No, not at all!" he says politely, gesturing emphatically for me to sit down. "I enjoy our conversation and it is good to talk these things through sometimes!" There is a long pause....

It is important to recognize, at this point, that there is presentism in the act of telling a tale, and narrative is firmly entrenched in that mode of discourse. It relies heavily on the construction of the past by projecting onto past events the ideas, criteria, knowledge and viewpoints of the present. The present and present understandings cannot be extricated from the narrative telling. Narrative provides the space for ideas to coalesce, to find their own sense, create a new order and establish a new sense-making framework, informed by and through the narrative form and performed on the stage of the present.

So, the discussion that followed was not based on my present understandings provided by the luxury of time to ponder and search for meaning while I elaborate on the story. My understandings of the events of the story were still fragmented, waiting for the storying to make them whole. Consequently, with my storied understandings now, I most probably would *not* have followed that root/ route by continuing the conversation in the same vein as I had then … but I found myself asking: "Have you thought about asking people from the community who might be qualified teachers to come in and help you when your teachers are away?" He pauses. "No. They would want to be paid. We don't have the money." And as I ask the next question, I am thinking of a qualified mathematics teacher living in a nearby privileged community who is at home with her children; a friend of mine that I know to be an excellent caring, motivated teacher. 'Perhaps I could ask her', I'm thinking, 'if the school wanted me to… I know that she would not ask to be remunerated!' So, I ask the next question: "But, maybe they would not want money. Have you ever tried that route?" and he answers directly: "No. I haven't." There is a pause…. He looks to the window…

As I write this, I wince with excruciating embarrassment at the question, and I know that this returning to the story and embracing of the mistake I made in asking this question is part of the growth towards humility and empathetic understanding, without which my research would have little value other than to report on 'the process'. It also has further value in transparency and recognition of how deeply language and power are interconnected and operate in unison, and how what may superficially appear as, or even sincerely intend to be, a philanthropic heart and the desire 'to do good', is often invested in repressive forms of power whose broader political interest is to denigrate those deemed "disadvantaged", and to assist in holding such communities and individuals to paternalistic relationships of dependence and shame.

It is the voice of neo-liberalism at its most effective, disguising the dehumanizing and disempowering elements of the kind-hearted gesture, behind the shroud of 'good intentions' and 'well-meaning generosity', appearing in the form of 'upliftment'. Of course, I shouldn't have expected the principal to want the 'hand outs' I was offering. His non-acceptance of the offer, albeit probably done to restore his and/or his community's self-pride, was simply highlighting and reinforcing 'the lack' and the deficit within which he was forced to operate. In so doing, it was establishing it as an uncontestable, visible 'truth'. I was disallowing him and his community any real self-pride. Mine was silence-making discourse whose investment and returns was predicated on pre-established silence... silence 'entruthed' in the spaces of the daily and lived....

Then I ask *The* Question: "*Why* are a third of your staff away today? I notice that since I have been here, this seems to be a frequent thing. Do you agree with me?" I know that I

am putting him on the spot. I am still firmly entrenched in deficit mode and there is an accusative tone in the construction of the question even though I have softened it with my voice… in the way I have asked it! Nevertheless, there is no 'togetherness' or 'ubuntu' in this question, just 'Me' - the researcher, and 'him' – the principal.

The principal turns back towards me, and taking his spectacles from his nose, he rubs his eyes for a long while… There is a very long pause and I sit awkwardly waiting… the silence seems to be punctuated by a cursor… blinking … on and off… on and off… waiting for unready language…and as I become increasingly sorry that I ever asked the question at all, I increasingly am wanting – desiring – to know the answer I am going to be given. Which way will the coin fall? Is this a game I am playing, and am I simply *curious* about the outcome, like a school mathematics game played in the classroom where the students are drawn into the activity simply by evoking the primary motivation of 'wanting to know *the answer*'? … I know that the coin cannot fall on its edge… and if it does, it will spin for a short time, marking out playful, taunting, undirected paths for a while before it begins its wobble… coming to rest on one or other side… and who will be the winner? I know that he is in a double bind.

To acknowledge the problem as "a problem" is to assist in its construction and establishment, and provide linguistic and political ammunition for the construction of "the truth" about deficit. To deny it, *is to do the same*… there is no win… but as this principal pauses to move through the mindless oscillations of positions, I imagine… no! I imagine I *feel*, that he is moving forward… trying to push it into a place beyond the

binary nature of the bounded discourse… thinking within his soul… he seems to be reaching to pick up the coin… to clasp it… to stop the oscillations…

"You know," he says with humbling sincerity, "I think it is beginning to be a problem…. I try to be empathetic and understanding… a lot of these teachers have domestic problems of their own and I try to show them understanding by giving them the time off… and then some of them take time off for illness, and this and that … but actually, … yes, I think it *is* a bit of a problem, because it is a problem for the school and a problem for the community…. Yes, it has become a problem *for us*!" …

I am not able to speak with any authority on the intended meaning of the principal's words. I cannot with any sincerity say that he came to a transcendent understanding of "the problem", or to claim that he achieved a heightened consciousness of the broader context of its construction and to problematize "the problem" itself. Nor am I able/ willing to claim that he was enabled to divest himself from the paradox of acknowledging or denying "the problem", through the process of our discussion. My research, or any other's, is not able to support such claims. This would merely be projection, in a way that simply closes down the debate. At most, I can simply speak to what I feel it may possibly mean.

But, in effect, the greater value of his words does *not* lie in their accessibility to analysis that ultimately establishes academic, political or epistemological "truth", or which seeks to validate this truth as "evidence". The value of the principal's response lies in the open-endedness of a debate that allows *in* the multiple dilemmas that inform the context,

language and principles of power inhabiting it without singularity of objective, engagement in oppositional discourse or absolute resolution. Its worth lies in its illusiveness and unresolved/ unresolvable 'beyondness'; its diffusion and non-centrality; in its non-causality, non-verifiability and indeterminateness; in its intangibility and everywhereness. Although I should never have asked the principal to commit to an acknowledgement or denial of the teachers' 'rate of absence' as "a problem" in the first instance, once having been asked, the worth of the dialogue is in the questions, dilemmas and alternative understandings it facilitates behind and beyond the question itself, and the positional and communicative disjunctures it exposes. It is a process which finds value in inverting the dialogue and finding alternative ways of proceeding, with movements that do not carry one along a known path, but recreate other paths, labyrinths, spaces to move about, albeit metaphorically like walking through walls!

It is about moving out and coming together simultaneously... it's about digging down and pushing up, like a plant searching for anchorage and light at the same time, ... it is about at once finding place and searching for a new course... and it is about rootedness in routedness and finding routes towards roots... It is also *none* of *any of these*, but *all of these at once* - not in a moment of time, or even in a temporal continuum - but ever present, past and future blended together and ever interconnecting in a storied journeying... journeying towards sourcing... and re-sourcing...

"Yes, it has become a problem for us!" We can ask questions about this statement, without ever 'knowing' one way or the other. We cannot verify intended meaning, but verification and 'truth' are not our objectives for transcendence. Yes, on a primary level,

it could be argued that the principal of Visserman's Baai Laër is *recruiting* the construction of the broader discourse on teacher absences as "the problem" so as to attempt to stand outside of it ... yet, knowing that he is ever within it, by belonging to the "us" he refers to, and by not having been seen to have 'addressed poor work ethic' and 'managed improved efficiencies'. Not only can we ask about *who* constructs "the problem", *who* has primary authorship of it and *who* is situated within or without of it, but we can move to appreciate it as the paradox that it is, so that by understanding it we can begin to *transcend* it while *remaining within it*, nevertheless knowing that we can never divest ourselves of it and, simultaneously, that it can never be resolvable as a paradox of language unless the context changes.

Yes, and we can understand that to *deny* "the problem" of teacher absences would be to provide it, in its oppositional stance, with greater "truth" in reproducing the "Truth" on 'black teachers' in South Africa and the legacy of hopelessness; to disengage with providing other alternative ways of educational practice; and to reinforce the interrelated pedagogies of poverty and disempowerment, disadvantage and despair. But, ... to say that it is a "problem *for us*" is to provide it with joint ownership and co-lateral responsibility; to provide it with an opportunity to carry the people's voice as well as to redirect the language away from the dichotomies of who possesses "the problem", who constructs "the problem" and for whom is "the problem" a problem, but towards co-authorship, co-ownership, and co-emergence to a place of new possibilities. Although this move does *not resolve* the principles of differential relations of power (and this must continuously be considered), it nevertheless provides a space for moving forward outside of the pre-established discourses that these power principles dictate.

Now what we need to do, collaboratively, is focus on what we mean by "us". How do we find the separations in meaning as the language of "us" moves across contexts and places of power? How do we celebrate a meaning of "us" which gives voice to the victims of poverty and deficit discourse *outside* of that discourse, in a way that does not carry the voice of imperialism, so that the voice of the subaltern is clear and distinct from the voice that defines it? Is this possible?

Is the voice of the victim not trans-voiced... possessing elements of the voice that defines it and which counters it. Isn't this the nature of hegemony? If this "us" is granted distinction, where then is the place for "us" in meaning - "all of us" - in terms of the joint responsibilities this necessitates and in which a collaborative transformative spirit inheres? To move to "a problem for us", is to play a game of separating out the voice of dominance ... to make "us" mean the community only, whilst to simultaneously incorporate the inclusive "us" as to *take in* the broader community and discourses of power, so as to hold these voices jointly to account, to counter the hegemony invested in the power imbalance between voices, and to establish a collaborative co-authored "us".

My mind moves back, in trying to understand who the "us" is, to ethnographic moments I jotted down in my field notes... but I needn't have written them down as they were indelibly printed on my psyche, in creation of a canvas of contradictions, mapped out in a montage of competing meanings...

I see the teachers in the small staff room at lunch break, chatting to each other and talking about teaching positions at *other* schools they saw advertised in the local education department gazette... talking about how hard it is to attain a post elsewhere, talking about the number of posts they have applied for, interspersed with discussions about domestic problems at home. I found it surprising that in all the time I was engaging in research at this school, I never saw the single photocopier ever used for photocopying notes, activities, worksheets, educational aids for the students... only teaching posts in the gazette by teachers for themselves, or for administration purposes by the principal's secretary. Occasionally, I hear the teachers complaining about students. However, I never hear them talking about pedagogic issues or teaching approaches... activities that were very visible/ vocal in the staff room at the privileged independent school at which I researched. In the independent school, there was always a huddle of teachers having a meeting during short break or lunch hour about novel teaching ideas, lesson plans, themes, activities, new technological aids, personal successes in the classroom, relating pedagogic moments with enthusiastic students, and having excited conversations...

A few of the women at Visserman's Baai Laër offer me a cup of tea in the staff room and stand up to prepare it. They find a spare broken cup in the sink. They hope I don't mind that there isn't any sugar left and I, of course, accept the tea graciously. A male member of staff offers me some of his sandwich from his Tupperware lunch box and I return the favour by offering some of mine, in a similar Tupperware container... the same kind as the one I used to take to school as a school girl ... They speak to me mostly in English and are very friendly, then they continue in Afrikaans and Xhosa with their conversations about other teaching posts...

I wonder where the "us" is in the community... It seems to me that there is no belonging place here in their hearts and personal motivations, ... only an accepted communal frustration and a ever-present desire, ... a patient waiting... to find the opportunity to extricate themselves from this local community and to divest themselves of their teaching commitment to this school that their lives are locked into. Some start to complain about the principal. The 'tea girl' enters and adds her piece to the 'skinner' (gossip) about the principal, using some colourful expletives in "Cape Coloured" dialect. The teachers, conscious of my stranger presence, laugh heartily and tell her, referring to me: "Nee, jy moet versigtig wees... sy ken Afrikaans." [I] The 'tea girl' covers her mouth in embarrassment and apologizes to me for her language: "Askies, mevrou, ek het gedink dat jy Kanadees is!" [J] I laugh with them and reassure her: "Moenie worry nie ...dis regtig niks nie. Ek belowe dat ek niks vir iemand sal sê nie!" [K] and we all laugh together... and for that moment... it is all of us....

But later I hear again one of the teacher's I interviewed, Don, speaking about how other colleagues of his that are teaching at the school won't give any of their students a lift (ride) home to the township if they happen to pass them in their motorcars walking along the road. I think of the many times I did that very thing, offering lifts to these young people with their grateful, smiling faces. "Why?" I ask him. "They tell me that the children stink and they don't want them in their car." Where is the "us" now, I wonder?

[I] No, you must be careful... she knows Afrikaans!

[J] Excuse me, madam/ Mrs., I thought that you were Canadian!

Is this a community of people sharing a common purpose, linked together in mutual support, language, values, empathy, culture, destiny… or is it another social construction of what culture is… a socially engineered "us"? I hear Don's voice telling me as I give him a lift to his home in another suburban 'coloured' township: "The other teachers, when I first came to this school, used to tell me that I must use the stick on my pupils, because that is the only way that you are going to gain control of them… that is the only thing they know and understand… and, you know, I actually did at first. But soon I realized that it was wrong… It isn't right… I am supposed to be on *their* side and I must try and understand what it is like for them…And I realized, 'how can I go and hit a child that might have been raped by her drunken father last night… how can I do that?' And I realized that it is wrong and that I can't do that… I must rather win them over, because, for some of them, I am the only person who will listen and try to understand … and that they can talk to… and not abuse them. But most of the other teachers, they still do that… they hit the kids. They know they can get into trouble from the department if there is a complaint, but they still feel too threatened not to do it… But it is not for me."

Where is the "us", I wonder again and again? I think about my attendance at paper presentations in international education conferences with well-known 'African American' educationalists speaking about race, culture, SES, and low achievement levels … most especially, of course, in mathematics. I think about one specific speaker who draws the relationship between "low achievement levels" for certain students with particular "demographics" [19] and how the "dominant culture of the school does not approximate the

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[K] Don't worry…. It is really nothing. I promise I won't say anything to anyone. (I won't tell anyone about what was actually said.)

culture of black students in the community". For this speaker, this is the primary "factor" in why they don't achieve well. In her presentation, she talks about how the "ratio of the number of black teachers teaching black kids, is too low."

I think of *this* school, Visserman's Baai Laër, and the fact that *all* the teachers are "coloured" and black, teaching all "coloured" and black students. From this point of view, there is nothing 'wrong' with 'ratios' here, (other than the fact that it represents merely the opposite... the legacy of Apartheid and racially segregated schools… what is 'wrong' is that there *are no* other ethnic groups represented here… no indicators of a 'multicultural' schooling environment). But where is the sense of belonging? These teachers speak of themselves as *not* belonging to the community, or that it is an unwanted or uncomfortable belonging. The majority, don't want to belong, it seems. So, where is the affinity, through "cultural approximation"? This is what Apartheid did. It said: "Each to his (sic) own!" This was supposed to preserve "cultural distinction" through "cultural proximity". But where is the "us" in this community of teachers and students? Is this not another example of social constructions of 'race' and 'culture', socially engineered to separate and render subordinate? Or is it that the weight of "poverty" overrides "cultural proximity", or that "cultural proximity" lies within the "poverty'?

Are these teachers captives to the oppressive psychological states of being within poverty? Are they themselves prison wardens sentenced to sentencing these children of the community to eternal incarceration within the walls of personal and political disempowerment, … these children that are criminalized by/ within "poverty"? Is it that the teachers, in their state of de-motivation, wish to divest themselves of the quagmire of

hopelessness that the "poverty" of this community represents, thereby inadvertently *contributing to it* in the very *act of its rejection*?

I cannot criticize these feelings. I remember from my youth, feelings of entrapment by oppressive, mundane contexts I was locked into, and the single driving motivation of trying to empower myself to overcome and extricate myself from them. I remember those feelings well! Here, there *cannot be any blame*...

I am in another place now... sitting around a table with university alumni, talking about the future prospects of my old alma mater. On the table are memorabilia ... some key rings and badges. Inscribed on one of the key rings are the words: "World class African University". It carries an *insider* counter-hegemonic celebratory tone, but it also highlights an *outsider* globalizing discourse, a dominant/ imperialist gaze, that constructs this statement as an oxymoron. It is a voice that, in projecting outwards to the world, echoes back upon itself with external authorship.

Nevertheless, it defines another version of "us", "us" as "African"... a unified voice that transcends, as it embraces, 'race' and 'culture'. The alumni representative speaks an impeccable English, and there is no trace in his accent of his South African "coloured" roots. He is talking about trying to find funding to 'import' "African scholars" from other African countries to try to address the existing mismatch in the ratio of "African" students to lecturers. "Most of our black students are still being taught by white professors. Although our numbers of black professors have increased somewhat in the last few years, the majority of them are still white. We want to import distinguished

scholars from other African countries, so that there is more *cultural proximity*... so that our students feel more represented culturally." I think of my experiences with teachers I interviewed at Vissermsan's Baai Laër (Fisherman's Bay Elementary) and Visserman's Baai Hoër (Fisherman's Bay High), and I wonder about this idea of "cultural proximity", who defines the term, what is meant by 'culture' and what is meant by "us"? It is like the term "cultural relevance". I always want to ask...relevant to whom, why, whose 'relevance', whose 'culture'?

I answer the alumni representative to the effect: "You speak of 'cultural proximity', and I know that this is a concept which marks our bodies, but it is not only something which is mapped onto our skin... it is well beyond that, depending on what you mean by 'culture'. It is about our values, about what you mean by "African" and what you mean by "us" as South Africans. "Cultural proximity" is something that not only marks your physical body, but also calls on your history and experiences. It calls on your values, motivations and frames of reference. It marks your *spirit* far more!" He does not respond to my remark and I wonder if he has simply read this as another 'white reaction'.

And yet, ... taking the debate a step further, ... this is not to say that 'whiteness' is *not problematic* in dictating the *cultural terms of context*, just as Apartheid *still* inhabits many 'liberated' places of South Africa. But the solution does not lie in the myth of some mathematical equation that says that if you make one side of the equation more 'black' and less 'white', you will achieve a 'balance'... the ultimate 'equality'. The *complexity and specifics of context* informs practices, rather than socially constructed, discursively bounded 'factors' that influence them. It seems to me that it is the elements of "poverty"

which hold subjects to conditions of hopelessness, and it is these *contextually-produced* conditions/ discourses/ practices that separate out the teachers from their students, 'the outsiders' from 'the community' at Visserman's Baai Laër, *despite* socially constructed, categorized "cultural proximity".

Identity is socially constructed and informed by context. The self carries multiple identities that shift emphases across spatial/ temporal locations. Some identities of the self are fore-grounded in certain contexts, while others are back-grounded. Nevertheless, to transcend the dualisms of our language and the oppositions of identity that are established through language, we need to look at the language which defines, separates, limits, makes possible a concept of "us". How can we begin to move beyond paradoxes, contradictions, and dilemmas without a contextually transcendent concept of "us" that embodies, pedagogically, a collaborativeness, inclusivity and a *humble/ humbling togetherness*.

With the hope of transcendence, I hear the words of Antjie Krog (2000), a well-known journalist who reported on South Africa's *Truth and Reconciliation Commission* hearings, in her struggle to find meaning in/ through her own identities in performance; to come to terms with the past that created silences and evoked associated violence through socially constructed notions of 'identity'; through a re-earthing of re-imagined possibilities while simultaneously searching for the light within the day/ daily, and in finding presence in place; to 'source' beyond 'identity' to a 'resourcefulness' in an 'identifiableness', … in her search for a new "us":

The proceedings are concluded with the anthem. [L] I stand, caught unaware by the Sesotho version and the knowledge that I am white, that I have to reacquaint myself with this land, that my language carries *violence as a voice*, that I can do nothing about it, that after so many years I still feel uneasy with what is mine, with what is me. The woman next to me looks surprised when I sing the Free State version of "Nkosi." She smiles, holds her head close to mine, and shifts to the alto part. The song leader opens the melody to us. The sopranos envelop; the bass voices support. And I wonder: God. Does He hear us? Does He know what our hearts are yearning for? That we all just want to be human - some with more color, some with less, but all with air and sun. And I wade into song - in a language that is not mine, in a tongue I do not know. It is fragrant inside the song, and among the keynotes of sorrow and suffering, there are *soft silences* where we who belong to this landscape, all of us, can come to rest.

Sometimes the times we live in overflow with light.

(pp. 285-6; emphases inserted)

[L] This refers to our national anthem – the national anthem of South Africa – "N'kosi Sikele Afrika" – meaning: "God Bless Africa".

There is a moon within a half circle of light.

Many choose not to see it.

They look upon the soft smooth arc,

the perfect curve,

and see its *boldness*.

But there are shadows between us,

and a moon behind the arc we *fear* to see,

for we have not yet learned the paths beyond the spaces we create,

the contours of the unimagined.

We look upon a mercuric sea,

and lose the essence of the sky mapped on it,

one for the other,

one and the same,

the watery image in whose face the sky is painted.

And the moon, with its dappled light,

splashed in gyroscopic patterns

in rhythm to the motion of the sea,

alluring, deep-spirited,

it calls us to the dance.

And what *is* our dance -

this dance of our identity?

A calling from without *and* within;

our many other spirits play the music of our ancestry,

and we follow searchingly for roots along our route.

Lets listen to the music of our history,

and let it flow to the rhythm of the dance!

Let's *not* map it in unitary space,

close its meaning in the language of our time!

Listen to the calling!

Feel the motion of the dance!

Find its essence in the web of life,

moving between,

moving beyond,

in the shadowy fullness of a new moon.

Listen to the calling...

listen to the dance!

ENDNOTES

[1] Métissage: derived from the Latin *mixticius*, which means to braid together different fibres to create a single strand. Métissage, based on similar concepts of collage and montage, is a neolism that incorporates into its meaning(s), a re-appropriation of the Canadian word Métis, whose original derogatory meaning is 'half-breed'. My personal understanding of Métissage is that it is a methodological research and writing approach, as well as a creative strategy and pedagogical praxis, which infers a particular political stance that critically challenges certain assumptions pertaining to race, gender, language and other social constructions. I view it as displaying a particular sensitivity and focus on spirituality, person and place, with an emphasis on ways of being 'present' within a community. Through the 'mixing of blood', métissage braids together new understandings and possibilities of 'being' in respect of race, class, language, religion, culture, and geographical, political and philosophical location. It is beginning to be embraced within alternative research methodologies and is especially evidenced within some narrative, poetry and other aesthetic writing genres, and texts of an autobiographical or auto-ethnographic nature.

Rita Irwin (2004) describes métissage in relation to the multiple and yet integrated roles of artist-researcher-teacher. She says: "They embrace a métissage existence that integrates knowing, doing and making, an existence that desires an aesthetic experience found in an elegance of flow between intellect, feeling and practice" (p. 28). For Irwin, embracing a move toward an integration of analytically different forms of thinking, which she refers to as *theoria, praxis* and *poesis* from Aristotelian philosophy of thought, the artist-researcher-teacher moves "to a more complex *intertextuality* and *intratextuality* of categories" (p. 27, emphasis inserted). For the artist-researcher-teacher, "there is a desire to explore new territory" that can be viewed as a "borderland of reformation and transformation, a geographical, spiritual, social, pedagogical, psychological and physical site *intersubjectively* and *intrasubjectively* situated in and through dialogue". In this way, Irwin reminds us that "métissage is usually recognized in hyphenated relationships" (p. 26).

It is, perhaps, relevant to use the term métissage here, in the sense of the following storying being an active literary stance which seeks to merge different writing forms, infuse the personal into the political and the political into the personal, invite narrative voices and 'identities' that are rooted in many, often marginalized, places, and blur research and writing genres like the mixing of blood. The mixed and often contradictory 'identities' (or inter/intra/subjectivities) I carry into the

field and from which I approach my research writing, as 'white' Canadian academic and South African, or Canadian academic and 'white' South African, or as an 'African' living in Canada, amongst others, acts as a métissage which congeals and separates, shifts, sutures together, and reformulates itself constantly as I move across/through differing contextual perspectives and locations. This also incorporates 'identity' as contextually induced, as non-static and ever changing, as growing *towards* whilst simultaneously growing *within*.... a routedness in rootedness. It is a métissage of the 'self' as constantly being 'mixed', re-imagined, re-configured, re-made, re/trans-formed ... or re-conceived.

The use of métissage is also pertinent here, in the sense that the majority of the people in the community, in which this storying is immersed, is historically one that, in accordance with previous Apartheid categorizations, might be referred to as "Coloured", or "mixed race", or, by Canadian definitions "Métis". Further, my personal involvement with this community through the research process and past lived experiences within such communities, acts as a métissage in itself, in that it not only is a site, between different languages, races, classes and cultures, for writing, sense-making, survival and re-growth, but a place for the proverbial mixing of my own blood with the blood of shared experiences, forming dissonances and resonances as the experiences blend and blur identities and personal positions. The hybridity of shared experiences produces coagulations at times and thinning at others, but, through the strength of the nature of those experiences, marked by the contextual specificities of person and place, always forms *new blood*! ... In this sense, métissage, as a creative and political device, challenges necrophilic pedagogies of oppression, and, by contrast, advocates for hope, possibility and new life!

[2] Irwin (1998) draws on a theme of "rootedness in routedness" in aligning the search for cultural roots and personal identity with a journey of self-discovery in and through "cultural translation" with others. The relationship between '"rootedness" and "routedness" in seeking "roots/routes" towards "roots/routes", as I view it, is reciprocal, dialectical, integrated, emergent, relational, contingent and mutable... In fact, it is ever being re-imagined/co-imagined and re-created/co-created throughout the journeying process. As Irwin (1998) says: "In an era of post-modernism, what is needed is a shift of understanding toward the roots/routes of our cultural identities. We cannot have one without the other, nor would we want one without the other.... Our understanding of ourselves, our lives and our beliefs is rooted/routed in dialectical relationships" (p. 39). Irwin uses Clifford's (1997) notion of "traveling-in-dwelling and dwelling-in-travel" (p.29) to describe her own route towards her roots and through the sharing of cultural stories. It is these stories that hinge on a notion of "cultural translation." According to Irwin "Cultural

translations, even when a common language is shared, are still interpretations rooted and routed within personal experiences, histories and geographical locations," and "cultural translation is really about understanding our own lives in a fuller way" (p.31). As I view it, narrative is a place for the expression of this greater "fullness" and is at the nexus of culturally translatable experiences and continuous ways of 'becoming' in the world, rather than static states of 'being' or 'having become'. [See also personal narrative engaging with "cultural translation", through the metaphor of "pushing out the boundaries of lived experience beyond common understanding" (Swanson, 2001, p. 313)].

I have further extended the theme of "roots/routes" throughout this narrative to invoke, through double entendre and a play on words, in a variety of ways, the multiplicity of associated meanings of the terms "roots" and/or "routes", as well as their various synchronizations and syncopations with each other, to facilitate further interrelated research ideas and themes and assist in the development of my arguments.

[3] Ubuntu is the African philosophy of humanism, linking the individual to the collective through 'brotherhood' or 'sisterhood'. It makes a fundamental contribution to indigenous African knowledge systems and underscores African 'ways of being'. It is commonly used, especially in Southern Africa, as a spiritual approach within socio-political contexts. Nobel Prize laureate, Archbishop Desmond Tutu, who, in 1995, became the chairman to The Truth and Reconciliation Commission, which was created by an Act of Parliament known as the National Unity and Reconciliation Act, was a strong advocate of the philosophy and spiritual power of ubuntu, in the recovery of "truth" through narratives of atrocities of the Apartheid era, as well as the more important and subsequent process of reconciliation, transcendence and healing which arises through the cathartic process of truth-telling.

As I have grown to understand the concept growing up in South Africa, ubuntu is borne out of the philosophy that *community strength* comes of *community support*, and that dignity and identity is achieved through mutualism, empathy, generosity and community commitment. The adage that 'it takes a village to raise a child' is borne out of the philosophy of ubuntu.

Just as Apartheid threatened to erode this traditional African way of being, so increasing urbanization and globalization, threatens to do the same. There is a consciousness and collective desire, through what is often referred to (most especially by our contemporary State President

Thabo Mbeki) as an African Renaissance, to attempt to reincorporate and strengthen ubuntu within an African post-colonial/post-Apartheid era.

[4] I have, up front, described the demeanor of the female interviewee here, as I saw it, in terms of the ethos of the institutional context in which the student was a learner. From my perspective, I noted how the cultural ethos of the institution, physically and environmentally represented, pervaded the context of the interview, which took place in a classroom where a mathematics lesson was not in session, but had most recently been used as such. This highlights the most often unrecognized subjectivities of place, and the way in which physical location shapes the discursive and somatic nature of the interview context. [Hammersley and Atkinson (1997), on one level, provide some understanding of the importance of context in shaping research 'behaviours', by introducing Goffman's (1959) distinction between 'frontstage' and 'backstage' regions in terms of the settings for interviews and ethnographic research. Goffman usefully uses the metaphor of 'performance' to support this distinction in terms of the presence and absence of an audience and the putting in place or withdrawal of props and whole repertoires of actions of characters. Nevertheless, the attitudes of the naturalistic ethnographer become evident in Hammersley and Atkinson's purposeful separation of the concepts of 'context' from 'physical location' and their devaluing of the importance of physical settings in the construction of knowledge. They intimate that physical structures and settings 'do not determine behaviour in a direct fashion' (p.52), and that contextual variability is a function of social constructions and not physical locations.] [See also Fiske (1994) for discussion on 'audiencing'.]

An interview can *never* have a 'neutral' context, and physical, temporal and social-relational locations as elements of context, are resources for the invocation of specific repertoires and positioning strategies. What is important, then, is to recognize the contextual elements in their potential for shaping discourse and to make them conspicuous, rather than to hide them in the interests of making the interview process appear seamless and objective. From my observations, the apparent 'resignation' and almost 'submissiveness' of this student being interviewed was noticeably distinct (from my podium of perspective) from the interviewing (and general) demeanour of students in the contrasting research context of the 'elitist' independent school. The elements of possibility realized in these contextual variations and the pervading ethos of each institution *preceded* my entry into the respective contexts and shaped the nature of that entry facilitated by the way the practice of interviewing is taken up or perceived within each respective context. The emphasis on seeing the process of interviewing as an extension of situated, local, pedagogical practices within this school is highlighted metaphorically by the notion of the

interview as "test". While part of the problem for this rests on my shoulders for not being able to invert the 'inevitableness' of this relationship and provide an interviewing situation which was more mutualistic and less 'evaluative' or 'voyeuristic', despite all my efforts to do so by trying to put the student at ease, be empathetic, conversational and personable, *does* testify to the overwhelming nature or embeddedness of this institutionalized context as a daily, lived, socialized reality – one which, in an interview in such a context, it is highly unlikely, in my opinion, that any alternative approach would have been able to override or undermine. In post-structuralist terms, the context evoked the recruitment of subject positions by which we (interviewer and interviewee) positioned ourselves in relation to each other, the discourses from the social domain, the elements (both physical and otherwise) of the context in which the interview took place and other available positions, and we played out these subjectivities in context. [This notion of 'playing out' subjectivities is a consummation of the evoking elements of context within the ambit of the social relations defining the context. Context is, therefore, a place (theoretical or physical) where positions are discursively (and somatically) established via a process of "interpellation" (Althusser, 1971). Althusser uses the metaphor of "hailing" someone in the street, to support his assertion that ideology constitutes individuals as subjects, and that individuals as "always-already subjects" are hailed or interpellated into another subjectivity within a specific evoking context (pp. 163/4).]

Consequently, the institutional norms of pedagogy as 'surveillance' infused the interview shaping the relations as well as the nature of the discourse with little successful contestation of these norms in *that* context, other than through the analysis I have herein engaged. It is critical, nevertheless, to note here, that I am not trying to *defer* the ethical responsibility for contestation of unequal or coercive social relations, but am rather trying to illuminate the *difficulties* and *inherent dilemmas* in attempting to do so, when the very practice engaged in (in this case, the act of interviewing and the articulations through this practice of the unequal power relations it necessitates) is fundamentally undemocratic, exacerbated by the oppressive ethos of the broader institutional context of the specific school. It also testifies to the constraints, within 'context', of evoking spaces for change and resistance. Consequently, some contexts have greater possibility for 'allowing' a modicum of contestation and change, than do others. 'Context', therefore, can be delimiting or empowering to differing degrees and in different ways. And that it also has a temporal as well as spatial condition defined through discourse, these delimiting or evoking elements may vary with time, opening up possibilities for the future that might not otherwise have been possible in the past. Here, the concept of 'context' as 'kairos' would facilitate an understanding of context as having both spatial/situated and temporal/historical dimensions.

Context relies on a range of conceptual features, including social, cultural, political and historical spaces, settings, sites or locations and is invested in power and control [See Bernstein (2000) for discussion on context and specific definitions of 'pedagogic contexts' and 'invoking contexts'. Bernstein sees meanings as inextricably linked and attributable to context: He says: "Code is a regulative principle, tacitly acquired, which selects and integrates relevant meanings, the form of their realisation and evoking contexts" (p. 109, emphasis in the original). See also Swanson (1998, 2000, in press a, in press b) for examples of recontextualisation of (school mathematics) practices across contexts.] The historical feature of context, *kairos*, is highly relevant to social change. Miller (1992) says: "As the principle of timing or opportunity in rhetoric, kairos calls attention to the nature of discourse as *event* rather than *object*; it shows us how discourse is related to a historical moment; it alerts us to the constantly changing quality of appropriateness." (p. 310) (emphases inserted).

The metaphors of 'test' and 'scientific experiment', speak to the reciprocity between positivist scientific methods and pedagogies of domination and control, such as those in our history of 'state education' in South Africa that invested in doctrines of Apartheid ideology. Unfortunately, in very many instances, the institutionalized legacy (material and psycho-social) still remains, whilst the policies have changed. Consequently, the metaphors of 'scientific experiment' and 'interrogation' allude to that violent history, underscored by the reification of positivist scientific method, and assist in providing a further description of the dominant pedagogies inhabiting this institutionalized context, where the inmates of the institution are to be controlled and transformed into receiving and submissive objects – experiments of oppressive pedagogies.

[5] This subtle, but noticeable, air of 'resignation', 'acceptance' or demure demeanour of the interviewee, as I view it, belongs, in my opinion, to the pedagogy of oppression in that it acts as the affective object of control and repression of the creative desires of the oppressed. It appears to me, from my perspective, as an inhabitation of the mind of the victim of oppression, engendering *deathliness* in its power to dehumanize. Paulo Freire (1999) refers to this as a phenomenon of 'banking education', where the pedagogies of oppression are informed by transmission texts, domination and the victim's sublimation of their creativity, desire for life, and critical thinking. Freire (1999) says: "Oppression – overwhelming control – is necrophilic; it is nourished by love of death, not life. The banking concept of education, which serves the interests of oppression, is also necrophilic. Based on a mechanistic, static, naturalistic, spatialized view of consciousness, it transforms students into receiving objects. It attempts to control thinking and action, leads women and men to adjust to the world, and inhibits their creative power" (p.58). The interview in this

context was subsumed within the broader context of oppression, ... like a contextual repressive web ... and in my mind, the interview became, (to some, albeit small, degree), an extension of the coercive pedagogies of the schooling context, despite some of my difficult attempts in this dilemmatic context to resist it, and even though the interviewee had repeatedly verbally indicated a clear willingness beforehand and during the interview to participate in the interview process, and even though I made it clear that she could withdraw from the interview process at any time during its progress. [Although I cannot lay claim to this, it is perhaps important to note, that many researchers might not have 'noticed' these nuances in demeanour (more especially, perhaps, those from a more distal research location or researching from a traditionalist/ conventionalist research perspective), or made reference to the 'difference', for at face-value this 'difference' might not have been deemed 'significant' from a conventional point of view.

Nevertheless, *I* did deem it critical and worthy of reflexive interrogation from a critical feminist ethnographic point of view in the interests of transparency. Some, however, may question whether my 'noticing' was not 'victim-making' discourse, or a *projection* of my understanding of what could be called 'poverty relations' onto the interviewee, and this perhaps would be a worthwhile question. To this I answer that I acknowledge, that in the analysis, I may bring certain 'common sense' points of view and other 'baggage' to bear on my understandings and interpretations, and that power differentials exist, which may shape what I do and do not 'notice' in research. As Alcoff (1991/92) notes about "speaking about" or "speaking for" 'others':

> In post-structuralist terms, I am participating in the construction of their subject-positions. This act of representation cannot be understood as founded on an act of discovery wherein I discover their true selves and then simply relate my discovery. I will take it as given that such representations are in every case mediated and the product of interpretation (which is connected to the claim that a speaker's location has epistemic salience). (p. 9)

Nevertheless, as I make salient the gaze with which I mediate my interpretation of the somatic elements of the interview, I can also contribute to *how* I came to 'noticing' the interviewee's demeanour in this context by 'recognizing' the contextual constraints and tensions (power principles) which might have induced this 'silencing' of person. This is achieved through the process of *memory.* I *recognize* the constraining ethos that would lead to like behaviours within the confines of the doctrine of Christian National Education (CNE), as I personally experienced it in my own youth as a student. On this score, as I recognize it, the repressive codes of CNE are marked and still prevail in this institutional context.]

Stacey (1988) reminds us of the difficulties that inhere in subjective research, where the interview is the place where the interviewer-interviewee relationship is situated within ethical and moral dilemmas. Even a move away from conventional or naturalistic approaches to ethnographic research cannot cause these contradictions and dilemmas to dissolve entirely. A reflexive and critical account can merely highlight them and potentially reduce the coercive and exploitative nature of them. It can also, hopefully, address (although not resolve) the ambiguities in terms of the complexities they inform with respect to social relations of power, and consequently advocate, in a reflexive manner, towards social justice agendas. Positivism still inheres in post-positivist and naturalistic research positions albeit often less visible or tangible, and the intermeshing of these positions within a range of dominant and subaltern locations should never be dismissed or sublimated, creating "blind spots" in our research. Scientific authority remains a dominant voice behind the shroud of "objectivity" or even within non-conventional and relativist positions and it maintains its authority through regulatory codes and principles within the very act of doing research (including the act of interviewing as academic researcher) within an institutional body. [See Keat & Urry (1982) on "Conceptions of Science", Roman and Apple (1990) on "Is Naturalism a move away from Positivism?" and Smith, (1999), on "Writing the Social"].

Stacey also sees the exploitative aspect of ethnographic research as unavoidable, and that all intimate data that the fieldwork informants share is 'grist for the ethnographic mill, a mill that has a truly grinding power.' Even ethnographic research from a critical feminist perspective, I believe, cannot entirely resolve the "contradiction in terms" which Ann Oakley (1981) alludes to, as the principles of power between researcher and researched, further informed by the context, set up priorities, emphases, subjectivities and consequent contradictions within the research. As Stacey further notes:

> For no matter how welcome, even enjoyable, the field-worker's presence may appear to 'natives', fieldwork represents an intrusion and intervention into a system of relationships, a system of relationships that the researcher is far freer than the researched to leave. The inequality and potential treacherousness of this relationship is inescapable. (p. 113)

[6] Ann Oakley (1981) highlights the problematic of textbook 'recipes' for interviewing which view the interviewer as elicitor and recipient of data without 'giving back information'. This concept of the interviewer/interviewee relationship, which affords little reciprocity between the two parties, is, according to Oakley, a masculine enterprise whose focus lies in the objectification

and appropriation of the 'other' for the purposes of scientific analysis. Oakley problematizes the traditionalist view of interviewing as: " 'a specialized pattern of verbal interaction – initiated for a specific purpose, and focused on some specific content areas, with consequent elimination of extraneous material' (Kahn and Cannell, 1957, p. 16)" (in Oakley, 1981, p. 33). The words 'specialized', 'pattern', 'content', 'verbal interaction', 'specific purpose', 'specific content area', 'extraneous material', testify to the disjuncture between conventional interviewing approaches and a critical feminist perspective which would more likely incorporate a broader, more inclusive, more reflexive, relational approach that views the interviewing process as partially reciprocal, contingent, negotiated, interpretative and complex. Had I willfully taken on this more conventionalist/ positivist approach in my analysis of data and written interpretation, with the 'consequent elimination of extraneous material', the meanings behind 'content', the non-verbal, somatic performances which were invoked by the broader context of the interview and the story behind the story which was far more significant than the 'content' of the data at face value, would have been ignored and the complexities and contradictions which shaped and informed the interview would have assisted in the production of silence. However, I did fall into the trap of not providing enough information about my own ideological positioning for fear that this would have been 'interventionist' and shaped the interviewee's responses in accordance with what she considered ideologically appropriate remarks that I might have approved of in order to ensure a positive proximal relationship with her. [This is what Hertz (1997) refers to as the positioning activity whereby respondents " 'size us up' in order to situate us'as 'the interaction between locating us and our own subject positionality", (p. xi).]

Ironically, instead, I recognize that she recruited positioning strategies that relied on commonly held ideological perspectives and globalizing texts that inhered in assumptions about 'mathematics teachers', 'foreign researchers' and 'progressive education'. This nevertheless, proved to be highly valuable in the analysis in respect of the recontextualisation of discourses in the construction of knowledge across contexts. How the interviewee came to a knowledge of me as researcher and mathematics teacher, herself as learner, and the discourse on progressive approaches to mathematics education, were informed by the reconfiguring of broader, global discourses into the local and situated context of the school and the interviewee's life. The contradictions between the philosophical and political location of 'progressive education' texts and the consequent neo-liberal positions that they often inform, contrasted against the local conditions within which the interviewee is personally positioned (revealed through the exposition of this narrative), raises an important problematic about the misappropriation of progressive education texts in mathematics education, nullifying their intended democratizing ideal.

[7] I have made visible the referents of my description here, by exposing my multiple-locations that inform my research/writing position. Writing is an act of performing pedagogy. Often, the location of reader/audience in relation to the writer/performer, and the political and institutional context and physical location of writing, is not provided as salient evidence in the co-construction of discourse. A writer writes with an audience in mind. That audience is recruited in the positioning of subjects in relation to the recruitment of subjectivities within the focus of the research context. The intention of writing is, therefore, to allure – or rather, to interpellate - the reader (with a certain virtual construction of the 'ideal reader' in mind) to the writer's point of view and achieve a proximal relationship with a 'reader audience'. The relationship between reader and writer is often dismissed in its formative power to create, shape and represent 'truths', and in the recognition of its place in the social relations of research writing. Smith (1999) pays some attention to this – to the "intertextual organization of discourse" and to how this "mediates relations among those who are – as readers, writers, viewers, and so on – discursively active" (p. 134).

Further, I did not want to fall into the trap, evidenced in some feminist writings by - most often - 'white Western women', of providing my location, up front, as a construction of academic "identity", only to *dismiss* or *ignore* its influence on informing the nature of the research or the positioning process within it. I have not wanted this 'validation' of the researcher's location, in the interests of belonging to a critical reflexive research paradigm, to be tokenistic, apologetic or confessionalistic! Therefore, I did not appropriate or emulate this approach as a necessary schema within this 'more fashionable' genre of critical feminist writing. Rather than expose the critical elements in the construction of 'truth', I believe that this confessionalist approach is counter-productive in that it *obfuscates*, rather than *exposes*, the relations of power invested in research positions and the way in which subjectivities, invoked in context, actively *inform* the nature of discourse and the reconstruction of 'reality' - a point of view which supports the concept of research writing as performative. As Roman (1993b) warns: "We will need to locate ourselves within these (global social) relations, going beyond the usual confessions (e.g., 'I am a white, middle-class, heterosexual feminist') that function as little more than disclaimers of privilege."

[8] As I move towards a description of the interview with the interviewee, I have 'set the scene' by describing the context of the school and community within which this learner is situated. I could therefore be aptly criticized for coming to an *a priori* knowledge of the learner through assumptions about the learner's context. This could act as *transference* of the conditions of the

learning context onto the learner herself, thereby providing the discursive elements of the means by which she may be constructed in terms of "disadvantage". (I have dealt with a similar dilemma in endnote 5, relating the interviewee's demeanour to an *a priori* recognition of her learning /interviewing context.) This process of describing the learner in terms of her background, or living and learning conditions, paradoxically assists in the reproduction of "disadvantage", *aiding and abetting the very discourse on deficit and disadvantage I am trying to alleviate!* This process could be interpreted, depending on one's research paradigm, as a 'flaw' or rather a 'disadvantage' in narrative-based methodologies that often rely on an intricate and aesthetic description of context and event to facilitate meaning. Nevertheless, I have chosen to continue in this vein, in full knowledge of this potential 'danger', for a broader, more critical, purpose, whilst bringing these contradictions to the fore for consideration and debate. The broader purpose, however, speaks to the *advantage* of the narrative approach in the kind of research I have undertaken here as, while still paradoxical, it nevertheless does provide a *context* by which dissonances between dominant and subaltern voices may be *illuminated* within the disjuncture(s) between situated/local and global/globalizing discourses or contexts. In other words, it may highlight the very *means* by which subjects are positioned in terms of "disadvantage" through the recruitment of discourse in the broader social domain, recontextualised within the local context of the learner's landscape. Having said this, my *intent* in providing a description of the learner's context of learning, is not to assist in pedagogies or strategies that will limit the learner, but to provide a description of the contextual limitations *so as to interrogate the structural and material conditions of poverty and poverty education, and to seek a means for its contestation and transcendence!*

[9] Following a similar theme as previous footnotes, it is very important to note that some, in post-colonial terms, might accuse me of romanticizing, sentimentalizing, exoticizing and/or naturalizing Adriaana in terms of her cultural/ethnic background here, and this would be a valid criticism. I have, nevertheless, willingly *embraced* this writing orientation for a very different intention. "Orientalizing" (Said, 1979, 1994) most often has the effect of contributing to veridical discourse on "the other", reifying 'difference' and establishing that 'difference' as a condition of nature (see also Minh-ha, 1989). Inherent in this 'orientalizing' discourse are forms of representation that romanticize, exoticize, sentimentalize or naturalize other cultures or people(s) spoken of in terms of social difference. These literary devices and genres assist in reproducing difference and participate in an agenda of 'othering'. Further, it discursively locates a relationship of power and may contribute, in its broader function, to complex hegemonies for which there are structural and material investments. Roman (1993b) warns us, in the sense of this approach being

adopted more universally as a methodology: "Instead of focusing our attention almost exclusively upon racially oppressed groups of women and men as either heroic icons or victims of racist practices and structures, we need to study the enactment of power and ideologies in a relational way" (p. 78).

I have, consequently, premised my remark in the narrative by drawing to the reader's attention, the situatedness of this account and its perspectival orientation. This also draws attention away from Adriaana's carrying the *full burden of representation*, but situates it in terms of the relations of power that assist in its production. For example, I might have not 'noticed' *in context* (or validated such 'noticing' of) Adriaana's cultural/ethnic roots in physical terms to the same extent as described here, but the 'noticing' became more prominent as 'the gaze' on 'the other' became more distally located, i.e., academic writing; North American academic institutional context, etc. This speaks to the power of place and the politics of spatial/ temporal locations, their proximities and concomitant ideological emphases. I have actively acknowledged the situatedness of my perspective for that reason: to highlight the underlying power principles at play in such descriptions. Rather than avoid describing Adriaana in the terms I have so done, I chose to bring this necessarily perspectival description to the fore. I therefore allowed myself to enter the dilemma as a contribution to the "crisis of representation" for the purposes of *engaging* with it and the underlying principles of power. For I believe that 'retreat' from these difficulties affords no forward path and is a choice of privilege. As Alcoff (1991/92) reminds us regarding positions of advocacy: "The very decision to move or retreat, can occur only from a position of privilege" (p. 24). In this sense, retreating from an action is not a possibility for the oppressed, and the act of avoidance from a privileged position is an act of collusion in the process of silence-making. Further, I have described Adriaana in the way I viewed her here, with admiration, therefore making salient my personal and political positions as ones of empathy and advocacy. This speaks to the strength of my emotional connection and sense of mutualism in respect of the experiences I have had with people, especially children, in communities such as Adriaana's. I am, consequently, attempting to counter certain hegemonic master narratives of the past that have denigrated and oppressed the "coloured" and "black" / "African" communities, and to do so in more spiritual and personally meaningful terms. I am also celebrating Adriaana's personal beauty and strength, reflecting the resilience and strength of the women of her community. It also allows me the space to take the theme of 'roots/routes' another step further, by placing my research journey within a framework of advocacy and personal/spiritual commitment – where 'routing towards' becomes (in yet another sense of the word) a *'rooting for'*! My description is overlaid with a 'rooting for' Adriaana and her community in their struggle against poverty, global

imperialism and marginalization. This is how narrative, although potentially problematic in its proclivity to 'construct' in ways which may (re)create 'difference', might also de-construct and re-construct (or even permit some space for co-construction). By moving into the realm of the personal, emotional, and spiritual, it offers a means, even only in part, of debunking some of the assumptions and advocacies of traditional as well as post-modern academic discourses, which are, in the end, about epistemological boundaries and discourses of power.

[10] This condition of becoming a "victim" is a critical contribution in which universalizing and globalizing discourses within mathematics education engage at the local level. This is to say that Mathematics education, its dominance and differentiating practices, produce victims in classrooms throughout the world. In other words, the dominance of these universal "progressive perspectives" inform practices and shape the interview context. I am considering how the researcher, as well as the researched, become victims of the prevailing discourse, and that there is no neutral ground for their objective evaluation in the interviewing context. This "victimization" I am referring to here is *a very different process* to the neo-liberal and/or conservative agenda that attempts to *invert* the relations of power between researcher/ researched or dominant/ subordinate voices. I am *not* investing in this political enterprise. [Roman (1993b), would refer to this enterprise as situated within postmodern relativism, and as an implied ideological directive to 'advocate non-advocacy', an oxymoron in terms.] Instead, I am, however, attempting to complicate the dualism which is set up even in post-modern discourses, so as to extend the debate beyond the binary opposites of the two parties concerned in the interview, and incorporate the multiple voices that are invoked through the recruitment of popular/dominant/universalizing discourses in the social domain, and point to their powerful contribution in not only informing the interview context, but producing "victims", albeit to differing degrees, where disjunctures occur in the recontextualisation of these discourses into the local/lived context.

Consequently, I have described the "victim-making" process as a "web within a web", where the interviewee becomes *my* victim in the way she positions me as 'white' academic researcher and mathematics teacher, thereby recruiting dominant/universal social domain discourses in an attempt to establish a 'proximal', or rather, 'expected' relationship with me in this context. My mere presence, in this context, is sufficient to invoke this victim-producing discourse, my consonantly becoming an inevitable victim of the broader social condition in which this victim-making process occurs. This is a clear example of embodied pedagogies. Rather than *invert* the power-relations of "victimization" in a dualistic way, I have, instead, inferred a more *complex contextual hierarchy* in which it occurs.... Or better still, I have embraced the metaphor of the

"web within a web" so as to describe "victimization" as operating in a more nuanced and complex way rather than as discrete stratifications of power suggested in the metaphorical use of "hierarchy". Nevertheless, we must be ever aware of the ideological investment in power inversions in local contexts where the prevailing broader social contexts are powerfully informed by an established differentiating social order.

[11] I am referring to the myth of "relevance" here in terms of the prevailing rhetoric that attempts to claim connectedness between school mathematics and the lives of the students in and through the act of learning. Probably more than any other school subject, mathematics has been accused of being too "abstract", disconnected, detached and remote from the lives of students and lived experience within communities. The questions: "how does this help us?"; "how does Algebra, or Trigonometry, Calculus, etc. relate to our lives?, "where are we going to ever use this in later life?", and "what is the relevance or purpose of learning this, it doesn't have anything to do with real life?", I am confident in my assumption that these are more commonly asked in this subject than in any other on the school curriculum. I would argue that these questions are more often asked, and in my experience as a teacher of secondary school mathematics, I would attest to this, by students that experience disempowerment and alienation in their learning of mathematics than for those that experience a more proximal relationship with this subject. In some, more repressive contexts, I would argue, where such verbalizations of alienation to the subject would not be encouraged or permitted within the teacher-student relationship, these questions would nevertheless exist, but become sublimated, ... a silence highlighting the very 'disconnections' I have addressed here in the narrative. Where the culture of the school and the learning environment within the mathematics classroom is distal from the cultural context of the learner within the home or community, this disconnection reaches a zenith. In other terms, ethnicity, gender, class, culture, language and experience serve as resources for the construction of social difference (Dowling 1998, Bernstein 2000) and act as potential cultural codes for the alienation of learners with respect to school mathematics (see Swanson, 1998).

These ideas can be further extended to incorporate a discussion on the nature of mathematics discourse and its potential, or not, towards social justice agendas in the school and mathematics classroom. Skovsmose and Valero (2001) in their discussion on the critical engagement of mathematics education with democracy, usefully provide some of the prevailing arguments supporting mathematics' - most especially school mathematics' - "intrinsic resonance" with democracy as well as the counter arguments for its "intrinsic dissonance" with it.

The thesis that mathematics is "relevant" to society is, in fact, a contribution to the utilitarian argument, which expounds on mathematics' use-value in society, most especially in its contribution towards technological "advancement" in the interests of "progress". This use-value is premised on the supposedly "democratic" ideal, that "technological progress" is necessary, inevitable, natural, and for the "public good". "Technological advancement" is connected to the aims of a nation's power and wealth as being dependent on "economic growth" and "foreign investment". This has most certainly been the case in the post-Apartheid South African context. "Technological advancement" under-girded by the promotion of a strong mathematics and science education program and concomitant policy-development, becomes a prerequisite for the democratic ideal of upliftment for all. Somehow, according to this thesis, "technological advancement" ensures "economic growth", fundamental to the establishment and maintenance of democracy. It acts as a form of political insurance. Skovsmose and Valero (2001) explain the thinking which supports this premise in the following terms:

> Many of these justifications are associated to ideas such as: Mathematics education contributes to the technological and socioeconomic development of society. It contributes to society's political, ideological, and cultural maintenance and development, and it provides individuals with prerequisites they may need to cope with life in its various spheres (Niss, 1996). The rise and consolidation of the Western world and its scientization, industrialization, and technologization – processes closely interconnected and strongly dependent on mathematics – gave mathematics and its applications a central role in social development. As a consequence, mathematics education was entrusted with the function of supporting technological capacities at all levels of society. Although we have witnessed different attempts to reform the teaching of mathematics that pursue different aims, this basic justification of mathematics teaching and learning by association to technological development and, therefore, social progress and well-being has not changed in essence in the last 50 years. (p.39)

As Dowling (1998) describes the current trend toward the wide-spread dissemination of mathematical use-values, to ensure 'a more mathematically competent workforce and citizenry', he argues that this position, in particular, "fails to recognize the social basis of its own epistemology. That is, it generalizes its own practices beyond the context in which they are elaborated, failing to recognize the fundamental implications of moving between contexts" (p. 3). In this sense, what I refer to as the "myth of relevance", Dowling (1998), would refer to as the "myth of participation", where "mathematics, then, is not so much being constructed as potentially about something other than itself (as in 'the myth of reference' (see Dowling, 1998, pp. 4-7),) rather, it is for something else. Mathematics justifies its existence on the school curriculum by virtue of its utility in optimizing the mundane activities of its students. This is the

myth of participation. It constructs mathematics, not as a system of exchange-values (as in 'the myth of reference'), but as a reservoir of use-values", (p. 9, parentheses inserted). This myth is supported by the progressivist enterprise in mathematics education. However, what I have referred to as the "the myth of relevance", is also informed by what Dowling refers to as "the myth of emancipation". It promises through, "the Enlightenment phallus of mathematics" (Dowling, p. 15), a 'better life', the possibility of 'opportunity' and upward social mobility, of material gain and a route out of poverty existence. It does so, by reference beyond itself, by claiming relevance and empowered participation in social contexts within the lived experiences of the learners to which this myth is being advocated. Problematically, it constructs this myth discursively without being able to provide the means, within the symbolic principles and representations of its own construction, to realize or facilitate the realization of these promises of emancipation. In essence, its appeal to greater political empowerment, feeds on the conditions of disempowerment of the local community. Mathematics here as a political text, in this sense, rather than facilitating democracy, is utopian, and assists in the reproduction of disadvantage.

The link between "success" in mathematics and structural and material 'embetterment' of the community is not an unproblematic and direct consequence [as in the "correspondence theory" of the earlier work of Bowles and Gintis (1976)]. In fact, mathematics, in itself, as a 'body' of symbolic representations or as the engagement with such specialized symbolic forms, does not possess the principles for such a political realization. The principles of power for democratic realization within a community lies within the realm of the global and social domain discourses surrounding, interfacing and engaging with the learning of mathematics in school and the intertextuality of other discourses – their relations of power and control - of the everyday lives of learners and their families, *not* the mathematics itself. The mythologizing discourses which construct mathematics as having referents beyond itself, and which promise socio-political advancement through "success" in this subject, are utopian, and in their simplistic discursive construction, assist in holding students and members of the community to positions of disadvantage – in other words, pedagogizing *social disadvantage* rather than 'embetterment'.

In the South African context, this myth has become particularly dangerous in that, as a result of the historical conditions which held back certain learners premised on racial profiles, most especially (and for political reasons) in school mathematics, the proclivity now exists, in an attempt to *reverse* the social conditions attributable to Apartheid policies and Bantu Education, to invest in "improvements" in school mathematics to this end. The *urgency* for the need for extensive economic regeneration within the South African context has assisted in the production

of the myth and its associated utopia, without establishing the *means* for its realization. A discursive and political "gap" or contradiction is constructed. These simplistic advocacies, which do not include understandings of the socio-economic and democratic advancement of a nation as a *critical complex*, are doomed to failure.

[12] It is interesting to note that *extrinsic motivation* is used here to provide incentives to the students for why they should work hard at trying to achieve in mathematics. There is little discourse that could be inferred as *intrinsic motivation*, which would be to encourage students to achieve in this subject through their interest and enjoyment of the subject itself. Little attempt is made in the classroom, as I witnessed it, to try and make this subject at least *appear* 'fascinating', 'aesthetically appealing' or 'enjoyable'. The aesthetic appeal or fascination which mathematics might present to a learner is never made available. All motivation is based on the automatic expectation that students dislike this subject and consequently do not put any effort into it, as supported by the internal discourse on the students' "lack of effort" and "failure" in this subject. This is then spoken of as an extension or 'root of' the student's socio-economic circumstances and "the problems" associated with this which are directly linked, then, to their lack of achievement. By tacitly supporting these ideas, the school then perpetuates them. Motivation is then achieved through 'threat' and not 'appeal of the pleasurable'. The procedural teaching methods in mathematics evidenced in this school concretize or validate such discourse around expectations, making no other experiences in the learning of mathematics available to the student. 'Relevance' of mathematics to the student's life is then achieved via the utilitarian ideal of its importance and 'appeal' to upward social mobility and the economic needs of the nation. The myth is complete, in that, although the 'rhetoric of relevance' is firmly entrenched in this school, *the means* for its achievement is not made available to the students. Dysfunctionality results in the schooling system! The students are told that achievement in mathematics is the key to their social and economic "success", but the students are expected to fail or achieve poorly and they play out, for the most part, these latter expectations – as the regulating principles which would facilitate or assure success in this subject are not provided. Consequently, they are *disadvantaged* and *constructed in failure*.

[13] This is the most current topic area that had been taught to Adriaana and her classmates in mathematics. This became evident in my interview with Adriaana, and it was the reason for its presence on the chalkboard. Adriaana's teacher had written these notes up that day and Adriaana and her classmates had been provided with an exposition of this topic area for more than a week.

[14] It is important to note that I am viewing the symbolic representations of mathematics on the chalkboard through the eyes, as I see it, of Adriaana here. I do not share the opinions of some students of mathematics (or other adults) who do not see the 'beauty' in mathematics and whose association with the subject has been alienating. I believe, however, from my experience as a secondary school mathematics teacher, that I have been able to achieve a sort of "double-vision" or "double-consciousness" in this regard (similar in concept to W.E.B. Dubois's notion in respect of race consciousness) - to detach myself from my own reality and *'to see'* the clinicism and unappealing side of this subject through the eyes of alienated students, 'othered' by their learning experiences with school mathematics, most especially as it has been formulated and presented in most of the school curricula in the Western world. Bertrand Russel, a famous philosopher and mathematician, once described the beauty of mathematics as "cold and austere". He too was able to see this aspect or perhaps 'trait' of mathematics – a subject that has many facets or faces to its make-up. I often feel, as I have observed it, experienced it in my own learning and witnessed it in the learning experiences of students, that they/we are presented with a face of mathematics that is like the dark side of the moon.

Of most concern, is mathematics as dehumanizing or despiritualizing – and I would argue that there are sufficient examples of school mathematics practices in classrooms throughout the world that testify to this orientation or vision of mathematics. If we incorporate a concept of pedagogy and curriculum as 'desire', including the distal and proximal relationships achieved between teachers and students in terms of pedagogic and emotional 'desire', then these experiences might describe mathematics and the teaching of mathematics as 'necrophilia'. (See consummate discussion on 'desire' in Taubman, 1990, p.127.) Giovanni Battista Vico, 17th Century Italian philosopher, lawyer, and classicist, draws attention to this spoken-of 'characteristic' of mathematics: "Mathematics is created in the self-alienation of the human spirit. The spirit cannot discover itself in mathematics. The human spirit lives in human institutions" (in Davis and Hersh, 1986, p. x).

[15] In the light of a definition of proceduralism as it affects differentiating mathematical practices in the classroom, the work of Dowling (1992, 1993, 1995, 1998, 2001) in particular is helpful. Dowling's work allows for an analysis of how subjectivity is realised in pedagogic texts. His work, amongst other objectives, brings in an extension and refinement of Bernstein's concept of classification. It is in varying the strength of classification of a discourse such as school mathematics (i.e. the delimitation or extension of its boundaries) with respect to *content* and *mode (expression)* that Dowling's "domains of practice" are arrived at (see Dowling, 1998, pp.132-

137). I am acting selectively on his work here, in establishing that the discursive resources available within a particular practice are broadly divided into two domains: the *esoteric domain* and the *public domain.*

Dowling's (1993) study is concerned with "the production of a language for the systematic sociological description of pedagogic texts" (p. 2), and in particular, this can be applied to mathematical texts. In describing how meaning is articulated, Dowling introduces his theoretical concepts of *discourse* and *procedure*. These concepts describe the distributions within the esoteric domain of mathematical discourse, the differing modes of expression and the nature of the discourse made available to certain students (groups or individuals) who are constructed in terms of one or more forms of social difference in their learning of mathematics.

Dowling (1993) refers to these as "textual strategies" and includes in this category the positioning of subjects (positioning strategies) and the distribution of messages (distributing strategies) to these positions, but while these may be separated analytically, they are inter-meshed and work concomitantly with each other in practice. *Apprenticeship* and *alienation* are textual strategies which may be achieved by the "relative presence or absence, respectively, of apprenticing text" (1992, p. 6). These textual strategies may be achieved by the *extension* or *delimitation* of the esoteric domain of mathematics. Pedagogic texts are designed so that *dominant* voices or subject positions are apprenticed into the esoteric domain. *Subordinate (or subaltern)* voices or subject positions are alienated from the esoteric domain so that context specificity is maximized for these voices in relation to the low context specificity of text relating to relatively dominant voices (Dowling, 1992, p.6).

For example, the pages of a school mathematics textbook designed for 'less able' learners might display classifications of, let's say, *quadrilaterals* by placing them on a diagram of an artistically drawn tree. Whilst the tree suggests, on the one hand, a categorization of quadrilaterals, the branches referring to ramifications or sub-categories, the tree metaphor increases context specificity. The multiple signification of the tree and its varied 'real life' connotations at the same time introduce ambiguity where the mathematical categories become inconsistent and the metaphor breaks down. This refers to a delimitation of the esoteric domain. Clarity of meaning and generalizability is lost through the invocation of the tree expression – a non-mathematical form of expression which is now embedded in a mathematical context. Certain voices – as audience - are recruited over others through the text. Here, the subordinate voices or subject

positions of 'low ability' students are alienated from the esoteric domain of school mathematics and denied access to the principles of generalizability of mathematical concepts.

To further elaborate on this theme, Dowling considers how mathematics discourse is constituted and elaborated within different contexts. He is concerned with what activities, practices and articulations of meaning apply in the constitution of mathematics discourse. Essentially, *discursive elaboration* of mathematics discourse includes making available and explicit the "regulating principles" of this discourse, whilst *procedural elaboration* hides meaning and obscures the regulating principles of the mathematics discourse. In other words, discursive elaboration makes principled connections between and within topics thus providing *access* to the discourse. It refers to the specialisation and generalisation of the discourse. Procedural elaboration, by contrast, hides the relationships and teaches algorithms, facts and procedures. It provides the student with mere rules. Procedurally elaborated discourse embeds the student in the mundane or within the confines of their situated context, disallowing access to the regulating principles of the discourse. Often, for these students who are alienated from the esoteric domain of mathematical discourse, mathematics is transmitted as an "abbreviated" text so that little or no continuity of meaning exists and the connection between concepts is not made. The previously mentioned example of the "tree of quadrilaterals" would be an example of this, where the *esoteric domain* of mathematics discourse is procedurally elaborated towards the *public domain* of the discourse of mathematics. Strategies that *alienate* and construct students in a *subordinate position* are referred to as *localising strategies* while strategies that apprentice students into the *esoteric domain of mathematics* as a relatively *dominant voice*, are referred to as *generalising strategies* (Dowling, 1993, p. 105).

To exemplify this further: At a conference held in Vancouver (June 2000), the main focus of which was Visualisation in Mathematics Education, one of the speakers described how she taught "simplifying with square roots" to "less able" students as a "jail break". In this way, 'prime factors' became the 'convicts' which, when grouped together in twos, "only one convict broke loose from jail", the jail being the 'square root'. This would be an example of where localising strategies were adopted with students, constructed as mathematically disable. It could be argued that an uneven distribution of mathematical discourse and practice was afforded these students in comparison with other 'more able' students. Mathematical exposition was produced as a series of disconnections. These students were denied access to the regulating principles of mathematics discourse and practice. Here, esoteric domain text was procedurally elaborated and the students were localised within the public domain of mathematics discourse and practice. It may be argued that the students were positioned as subordinate/ subaltern in relation to other more successful

students within the school and mathematics, which instantiated itself in procedural teaching practice within the school. Of interest also, was the way in which the speaker viewed this practice as an example of the use of visualisation in mathematics teaching, locating a particular conception of "progressive" mathematics teaching practice, (thereby positioning the audience as subordinate as well). [See Swanson (1998) for description of a study applying a theoretical framework, constructed mainly from Dowling and Bernstein's 'sociological languages of description' to a textual analysis of a group of socially constructed students in their learning of mathematics in a stratified (hierarchical) school context. Differentiated practices marked out positions of subordination for students constructed in terms of race, social class, language and cultural difference, experiential difference, poverty, ability, amongst other positions, alienating and disempowering these students in their learning of mathematics. In this way, constructed "disadvantage" begot pedagogized difference and disadvantage. See also Swanson (in press b)].

[16] Garoian (1999) in *Performing Pedagogy* provides an interpretation of 'performance' as a cultural production in which "the body performs various aspects of production, socially and historically constructed behaviors that are learned and reproduced. Teaching ... writing ... constitute different examples of professional and domestic cultural performance." By extension, "performativity" in cultural production "represents the performance of subjectivity" (p.8).

Interestingly, Butler (1995) in referring to J.L. Austin's work about "how to do things with words" or the performativity of them, refers to the illocutionary and perlocutionary acts of speech, actions, respectively, that are performed by virtue of words, or as a consequence of them. Of an illocutionary, she says "the effect of the act of speech is not to refer beyond itself, but to perform itself, producing a strange enactment of linguistic immanence" (p. 198). In the light of the performance of linguistic repertoires by a community so that meanings become continuously repeated and perform themselves, this needs consideration in how it creates and entrenches what collectively becomes accepted as 'normal'.

[17] The shift in 'senses' includes those senses that draw on or cue the affective domain. In other words a move from 'looking on' to 'listening to' would include a 'feeling for' as well. This 'process' would also parallel the discursive and intellectual act of 'sense-making', where the 'senses' are now attuned to the multiple-perspectives, multiple voices (said and unsaid) and 'sensory' ways of viewing the research context, so that the position of the self is situated in the centre of the sense-making process with all the concomitant emotional and spiritual interconnections with the context that this necessitates.

[18] This process of self re-identification and discovery… this coming to be… in consonance with a reflexive research journeying - is much like trying to walk through a bog backwards… or perhaps, it is like a wild sow trying 'to root' in the sod, invoking yet another metaphorical association with the word 'root' thereby strengthening the broader interpretative meaning(s) of roots/routes and their place in the narrative piece.

[19] It is interesting how black, minority, 'other' students are spoken of as having 'demographics' as if white, majority, dominant society students do not – theirs is a 'neutral' context. This, again, is the action of the white 'gaze' which renders its ideological principles and agencies invisible.

CULTURAL BEADS AND MATHEMATICAL A.I.D.S

Be kind to strangers for some have entertained angels unaware.

Hebrews 13:2 (New American Standard).

The workshop at the AMESA conference[A] was about "making sense of OBE[B] through project work: principles and practices". It sounded like I needed to attend this session. Coming from my most recent teaching experience in a Canadian context where Outcomes-based education has become entrenched and, for the most part, accepted for quite some time now, I thought I might be able to elicit some understandings and insights into how this system (not withstanding the many political sector-based controversies that have ensued around its implementation in South Africa) may be viewed, interpreted, embraced and critiqued. I hoped to gain some insights into the way in which OBE may be

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[A] AMESA: *Association of Mathematics Education of South Africa*, Seventh National Congress, directed at a broad audience of mathematics teachers, principals of elementary and secondary schools, mathematicians, mathematics educators, and academics and administrators in general and higher education and training. This congress was opened, in 2001, by the Minister of Education, Kadar Asmal, and Professor Jill Adler, international mathematics educator, and was held at the University of the Witwatersrand, in Johannesburg. Notably, the first congress of AMESA was held at this same university in 1994, the year of the first democratic elections of South Africa, ushering in a new focus for South African mathematics education, and education in general, for the 'rainbow nation' (as Mandela commonly referred to it in the context of the aspirations of a New South Africa). The then theme of the congress was: *Redress, Access, Success*. In 2001, the congress theme was: *Mathematics Education in the 21st Century.* The President of AMESA at that time, Aarnout Brombacher, drew a connection between these two themes and the 'relevance' that *redress, access and success* have on mathematics education in South Africa *in the 21st Century*. In the congress programme message, he comments that: "Mathematics Education will, in the 21st Century, contribute to transformation in our country through the mathematical empowerment of its people", intimating that mathematical empowerment is a necessary prerequisite for, and precedes, social transformation. Further, the theme title of "Mathematics in the 21st Century" which alludes to a discourse on progressivism and globalization in education, mythologically casts the discipline of mathematics as a political /socio-economic saviour of 'the people' and 'the nation'. This is on the grounds that its principles and practices afford "access" to the realization of social and political ideals of transformation premised on "socio-economic success" prescribed by the tenets and dictates of global economic systems and capitalist relations of production.

[B] OBE: This is the *Outcomes-Based Education* model, which was introduced into South Africa's education and training system in the mid-1990s. According to Jansen (1999) "OBE has triggered the single most important controversy in the history of South African education. Not since the De Lange Commission Report of the 1980's [Human Sciences Research Council (HSRC) 1981], has such a fierce and public debate ensued – not only on the modalities of change implied by OBE, but on the very philosophical vision and political claims upon which this model of education is based" (p.3).

"recontextualised" in practices from a recently-implemented national perspective, especially in the South African mathematics education arena.

The workshop organizer is a well-known South African mathematics educator and academic, I will call Rena, whose focus is on issues of democracy and equity. Her research work places emphasis on the implementation in the classroom of ideas from 'critical mathematics education'. In speaking with her during tea and lunch breaks, she comes across as a person of conviction who cares deeply about issues of social justice in mathematics classrooms and communities of practice, especially in the South African context with its legacy of apartheid education....

We are about the same age. Both of us grew up under this system. For a moment, I think about... wonder about her experience of education in South Africa, probably under the then 'Indian Education Department' in the former Province of Natal; mine being under the then 'Transvaal Education Department' for Whites. Yet, we are consensually located within a common motivation and at that moment we seem to speak the same language of frustration and commitment, despair and conviction. She talks to me about my research work and my interests, and shows genuine support for my research orientation and what I am personally hoping to achieve en route. She shows empathy and understanding, and can speak back to the frustrations I express to her in my trying to grapple with the paradoxes and conflicts, disjunctures and dichotomies that present themselves at every turn as I move across different locations.

And as I speak of my research route, I notice how it passes through and roots itself within and between shifting contexts. These contexts seem to 'vibrate' with the oscillations and elisions of constant reformulations of positions, relativities and colliding texts.[1] They are the shaky soil of pedagogic analysis and the ontology of ways of knowing, which produce the seeds of a history recast in our collective conscious, and the roots of (re)invention and future possibilities.

In this sense, I am aware that, without falling into the quicksand of social determinism, it is nevertheless *within, across, and in relation to* such evoking contexts that subjectivity and discourse is manifest – as sites of struggle –where context, discourse and subjectivity act as inter-subjective discourses of power and possibility. Context permits the theoretical articulations of and philosophical responses to hierarchies, polarities and paradoxes on the one hand; and, on the other hand - at a material level, serves as the terrain in which lived experience takes place as event and wherein discourse is realized as practice. It is also here that the paradoxes of pedagogy, made trenchant in theoretical arguments, are often extenuated in practice, made 'normal' by the 'noumenal presence' of 'lived reality'.

And I notice where my research route has produced filaments, some tenacious as twines, some fine as filigree, amongst aporetic spaces[2]. These have included mathematics education – the global and the local, diverse classroom situations, research predicaments, environmentally-induced predicaments, and the moral and ethical dilemmas that are situationally invoked as a consequence of multiple overlapping sites of struggle and local, micro, contextual shifts within the broader, macro context of post-apartheid South Africa.

This context in turn is a site of struggle against, and in relation to, the overarching and under-girding, regulative context of global discourses and world economies.

Mine, is an embodied dance within which I find myself in continuous impromptu choreography.[3] My personal postures, positions and poises reflect, or are informed by, the music of the contextual discourses within which the rhythm of my research and routedness find reference. Sometimes the movements are awkward and discordant; always they come to greater interpretative meaning and lead me to deeper and higher levels of possibility of knowing.

Each is a *stage*, not only in the *temporal* sense of a progressive movement towards a re-invention of ways of being, knowing and creating identity, but in the *spatial* sense of providing performative podiums of perspective, which speak to and across different contextual audiences. Always the movements are inspiring as the music modulates the dance. Rena knows this dance and accompanies me for a short while on my route, and the dance is enriched by the interpretive interaction[4]... I am drawn to her and feel an abiding respect for her person and her convictions. I am looking forward to the workshop....

Outside the elongated paneled window frames of the seminar room, I hear the song of African pigeons as they nest in the shadows between the tall colonnades, emblems of colonial history and the associated ivory tower of Enlightenment. I remember walking the long corridors of this university's Great Hall as a young student, being in awe of the possibilities that this university experience might hold for me as I listen to the sound of

my footsteps echo against the high walls and ceilings which smack of intellectual grace, arcane wisdom and lofty elegance.

I also remember, in visible contradiction *and* yet invisible consonance, feeling a part of the making of history by participating in vociferous revolutionary debates in the *same* Great Hall in those awful early 80s when the backlash against the heightening liberation struggle from the draconian dictates of apartheid regime policies and their brutal implementation seemed to reach a cataclysmic zenith. These academic precincts of stone and granite seemed so interminable and impervious to the vicissitudes and trials of the human experience, oblivious of the volatility of events that occurred within or without its precincts, standing solid in emblematic contradiction to the realities of South Africa, then a nation teetering on the edge of full revolution. It seemed so different now,... yet the atmosphere and smells within were the same, the song of pigeons in the cool afternoon was the same, the echoes through the corridors were the same, and the Great Hall stood in anachronistic and disinterested loftiness *all the same*[5].

Rena spoke for a while about the need to approach the learning and teaching of mathematics from a 'critical perspective'. She spoke about trying to bring 'relevance' into the classroom and for the need for mathematics learning to be contextualized within the realities of the experiences and circumstances of the communities in which it is practiced. Further, she saw the mathematics classroom as a site for social change and a space for the consideration of teacher, student and community concerns in a way that would open up a dialogue towards democracy, equity and freedom. This was a

mathematics education towards a *visibly* political purpose [6], putatively grounded in lived experience.

I had heard this discourse many times before, as had, most probably, most of the participants in the workshop. Although somewhat decontextualized, and consequently recontextualized by its contemporary situatedness within post-apartheid South Africa, it was reminiscent of People's Mathematics, a sub-category/theme of People's Education discourse, which had become prominent in the 80's as a backlash to the Nationalist government's (Apartheid government's) educational policies and a rejection of a White-imposed, Euro-centric education system on black South Africans.

Rena spoke of the need for bringing the issues and concerns of the community into the mathematics classroom in the form of project work, which could be directed at trying to solve local community problems through the discourse and practice of school mathematics. While we are in an era of post-liberation struggle, she argues to the effect that the legacies of apartheid remain a concern for the full participation of 'disempowered communities' in the democratizing process, and the harsh consequences of the vast inequities in terms of distribution of resources is a daily, lived experience of many in South Africa. As an exemplification, many communities are without access to fresh water, while other communities still have disproportionate access to resources. How can we, through a pedagogy of conflict and dialogue in complementariness, empower the youth of disempowered communities to contest these lived inequities and participate in providing opportunities for their resolution? What should a pedagogy of mathematics education look like for the youth of these communities? What would be relevant?

From a position of activism and in my heart, I concur with the objectives of her analysis on moral grounds and listen to where her argument is going. I am also looking for 'answers' to these issues ... how do we address the (albeit politically-referenced and constructed) continuum[7] of 'redress, access, success' in a way which would make the learning of mathematics in the classroom become an experience of empowerment and liberation from the tyranny of material constraints and social injustices that dog [8] the daily lives of so many of our people in South Africa? How could I disagree with her? From a moral, ethical perspective, how could I doubt this logic? From a position of personal integrity and social conscience, how could one question the motivations or the intentions?

In terms of my own personal position relating the reasons for my engagement in research of this nature, my own efforts were certainly in political alignment and moral accord with both the *ideal* this point of view expressed and the *political exigencies* it addressed. The motivation of my research in mathematics education in South African contexts was whole-hearted and spiritually directed towards these ends. Rena's motivation was morally just... no question of it! She was clear and convincing, and it was surely no less than an ethical and moral imperative!

Yet, in terms of 'the how', the *means* of achieving the expressed aim... some part of me wondered about the speciousness of the argument. Her argument was so obviously right... how could I think this? By daring to question this argument, even in thought, what did this say about me... about where my allegiances lay? But I felt also, that it was not *the motivation* that was in doubt, but *how the ideal*, inferred by the motivation, was to

be realized through *school mathematics*... I needed to know ... I needed to listen...to follow where Rena was going more carefully!

We were to divide into groups to talk about ways in which we could include projects in the mathematics classroom, where students could brainstorm and problem-solve urgent issues in their community... where they could go out into the community and choose an issue and then use mathematics to solve the problem, or to come up with a solution that would benefit the community and improve living conditions. Alternatively, how could you think of issues or ways of being that were relevant to the community or specific to local conditions and bring them into the teaching and learning of mathematics? How could we include an ethnomathematics experience and incorporate indigenous knowledges into the mathematics classroom? ...

In the room, there were mathematics teachers at elementary and secondary school level, administrators, mathematics consultants working in government departments and NGO's, and lecturers. Most, however, were teachers. After introducing ourselves to each other, one person in my group began talking about the need to problem-solve the traffic congestion, at drop-off time and end-of-school day, at his son's primary (elementary) school. Perhaps the students could work on a project to solve this predicament. He begins to draw out a map of the school and the adjoining roads, entrances and exits to the school and flow of traffic.

At the beginning of the group discussion, I felt that I could not make a contribution to ideas for projects (although this was simply a workshop exercise, as Rena rightfully saw

the project ideas as necessarily arising from student brainstorming) in so far as the problems that I might come up with, from my own immediate personal experience, would not fall into the virtual category inferred by Rena's "disempowered communities". Yet, the 'problem' that this group member had introduced was reminiscent of a very similar traffic flow problem at my daughter's elementary school in Canada. This Canadian school community could not be described according to the stereotypical features that register constructions of "disempowerment". This led me to think comparatively about whether a discourse on mathematics education, which viewed the classroom as a site for problem-solving community concerns, would be *possible* in this particular school, and from my experience with the school community, the answer would be a definite 'no'.

From my knowledge of the operations and the ethos of this Canadian school, most likely such a practice would be met with disdain and construed as a 'waste of educational time', if considered at all, and parents would likely complain that mathematics teachers would need to get on with the 'real work' of teaching 'the "hard core" mathematics curriculum' so that the students might be directed towards achieving the necessary scores for entry into 'recognized universities'.[C]

Both approaches claim to be 'democratic' by increasing so-called 'access'. What then made the South African learners 'different', even in the virtual sense[9], in terms of what

[C] This comparison does not necessarily apply in terms of national contexts. In my experience, a 'critical mathematics' pedagogy as Rena defines it, would not be considered a legitimate or viable pedagogy in many South African schools as well, most especially in contexts of privilege, such as newly integrated, but "historically white" schools. Even as these are sites of struggle for discourses on inclusivity, equity and democracy, so they have less ideological investment in local discourses and act as precinct markers of the maintenance of hegemonic global discourses, especially in reference to economic 'security' and the pursuit of pecuniary advantage for the elite.

was deemed "needed", "appropriate", or "relevant" to them? Was this an appreciation of situated learning in context, or a projection onto the communal self of conditions of the "other" as interpreted by the dichotomizing forces of Western hegemonies? Is this an act of decolonization of meanings of the mathematics curriculum in implementation and intent, or an act of isolation, reproduction of the subaltern position and personal redundancy, and self-colonization?

At this moment on my journey, I am engaging in these comparisons for the purposefully-detached analytical reason of providing sociological description so as to offer perspective on and illuminate the ideological agency discursively embedded in such comparisons of the two virtual school contexts.[10] Consequently, it is not that this practice of engaging in community-based project work in the mathematics classroom is a 'bad idea', or a 'good idea' for that matter, per se - quite the contrary - for I am not trying to impose a value judgment on the *principles* of the practice in any way – certainly not at this point of the analysis. Nor am I disregarding the fact that this is merely a symbolic exercise in a virtual practice and that the space (or not) for its realization within particular schools, within particular communities, may be very different than described in this workshop context. Neither am I dismissing the point that a discourse on such practices in this workshop context, in its implementation, is recontextualised into 'something else'[D].

Instead, what does interest me about this discourse, from a point of analysis, is how it *is*,

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[D] In this sense, I am reminded of the semiotic disjuncture between language and meaning, transfigured as it moves across locations. Words are like icons as they don't always speak of what they signify, but often of something else. [See also, Butler (1995) on the performativity of words/ speech acts.]

in fact, "recontextualised", *what* it does become, and what the implications are, in effect, for a discourse on democracy in mathematics education within, and in relation to, the global arena! What discursive resources are recruited in the construction of a virtual community that give 'truth' to that construction and which interpolate learners into virtual subjectivities, holding them to these differentiated subjectivities as legitimate conditions of being? What are the ideologically-inferred discourses within the broader social domain which act on local contextual discourses which provide legitimate spaces for one discourse over another, for the reification of one set of ideals over another, and that facilitate the distribution of differentiated practices associated with a hierarchized social domain, concomitantly positioning subjects differentially in accordance with these discourses? How are these subject positions attributed to different groups of learners?

Further, what forms of agency are in performance that allow for this to be achieved in accordance with the dictates of those recontextualized discourses in ways that are associated with the construction of difference and social difference discourses, while at the same time claiming to speak of 'something else' … such as democracy, empowerment, equity and inclusivity? ….

My mind has peregrinated … I hear myself asking the group member what he sees as the mathematics that would be used to 'solve this problem'. He is not sure, he says, but it would have to be something simple because they are primary school children… mathematical modeling and statistics, I am asking, and again he is not sure, as long as it is in the curriculum, and I ask what would happen if the mathematics 'they needed' to 'solve the problem' is *not* in the curriculum, and he thinks that it should *not* be a project

that is too difficult for them [11].... What if they didn't need school mathematics to 'solve the problem' I ask, ... but they *must*[12], I'm answered, ... because, he says, it is a *mathematics project*... not a social studies one[13]...

Where is the "empowerment" now? Whose "empowerment"? What is it "empowerment" *towards*, in which sense, and in which context? Will these students have achieved 'improved skills in mathematics' with the purpose of gaining the opportunity to engage in what is often referred to as "higher-order thinking" in mathematics (counter-logical to the tyranny of the curriculum)? Would this *be* "empowering"... for whom and in which context? Who decides when the "empowerment" is "achieved" and by what means, and to which ends? Can it be evaluated? Is this a practice that is empowering our students towards social transformation and democracy *through mathematics*? Why *mathematics*?

Is it because it is deemed "useful"? ...But, this is not usefulness in terms of its symbolic content and the specialized skill base that this gives rise to, but because of its *authority of voice* in the social domain. ... Here, mathematics' symbolic content and 'discursive saturation' (Dowling, 1998) is semiotic of its investment in power: The greater the potential for abstraction and generalizing capacity, the greater and wider the power base.

Can we then ask if it is a 'transformation pedagogy' claimed through the rhetorical *use-value* (with socio-political referents) of mathematics capitalizing on its putative *usefulness* (as informed by socio-economic referents through 'science and technology' rhetoric)? Is this 'mathematics as a text for social justice' or 'mathematics as political expedience'? Why is the *mathematics*, (constrained here to the curriculum, made

'simple', disallowing the 'unthinkable'[14], unchallenging,) paradoxically, positioned as the "liberating discourse", through the text of a discourse on 'critical mathematics'?[15]

I have an image of two virtual school contexts in my mind ..... in one place, a group of children, positioned as "impoverished" or "disadvantaged", is working diligently and constructively on a "mathematics project" to help their community, attained with, from an 'international standards' framework, 'impoverished mathematics skills' (see Howie, S, 1999, on results of TIMMS-R for South African context).... In another place, a group of children is diligently [E] studying 'core skills' in mathematics as well as developing a 'problem-solving capacity' (as interpreted through a set of 'standards' learning protocols)

[E] I am not using this word to effect bias, but to refer to the difference in context on another level. One of the explanations given in the above-mentioned TIMMS-R study for the relatively 'poor results' of the South African students was rampant absenteeism. The amount of time students spent at school, doing mathematics, was very low compared with other nations. This is a legacy of a mindset adopted by mostly black students during the anti-apartheid struggle era. This mindset was encouraged through an articulation of a mass rejection of schooling on ideological grounds. It was most prominently articulated through the slogan of "liberation before education". In the 80's and early 90's, this slogan encouraged black students to boycott schools and reject their own schooling entirely. It has been argued that it was a political appeal to martyrdom for 'the cause' through collective self-sacrifice. As 'liberation' has not (as yet) provided immediate, tangible, widespread examples of where 'success' in schooling has realistically generated visible opportunities for employment or a 'better way of life', the disconnections remain, the 'lack of hope' continues to be contextually internalized and self-reproducing, and the alienation from school and its educational 'promises' persist. South Africa's post-liberation unemployment rate has risen to almost 35%, incommensurate with the economic election campaign promises made by the ANC (African National Congress, the contemporary post-Apartheid government).

Further, it was reported in TIMMS that South African students were not exposed, in general, to sufficiently challenging mathematical problems to enable them to develop 'high logic" competencies, and were not granted sufficient opportunities to persist with challenging problems. This could well be argued, from a historical perspective, that this is attributable to the consequences a Nationalist (Apartheid) government policy of Bantu Education, followed by the implementation, (where it took place) of People's Education (including, People's Mathematics), whose sole focus was on education towards an explicitly political objective (and a rejection of the traditional/formal curriculum perceived as a 'white' curriculum). Please note, that although I have used the word 'diligently', I am not attributing blame, or claiming the opposite condition of 'slothfulness' or 'lack of effort'. Students cannot be blamed for lack of exposure to the kind of education as validated by an international 'standards' framework, lack of opportunity to be exposed, or for being the pawns of political process.

in a classroom which will 'maximize the number of university-entrance scholars' (in quantitative-educational, policy-oriented lingo)[16] and advance many of them on their way towards entry into a place of higher learning, ... and which then, ironically, may provide them with the ability /opportunity to *think the impossible* and provide the requisite skills 'to solve' (or responsibly *address*) a difficult community problem *mathematically* [F], ...BUT, ... and this is the fundamental difference in political premise, ... they never *do* get to do a project which will help their community!!

Both 'ideals' are trying to "advantage" their learners, albeit with different ideological emphases and socio-economic premises... both place emphasis on mathematics learning in schools for "social advancement", (a spoken-of 'democratic' ideal), either through individualistic upward social mobility in a truly globalizing, economics-oriented framework, and modernistic, neo-liberal style, ... or through mobilizing a collective ideal of "empowerment" by means of a pedagogical focus on "empowering the community", carrying a more inclusive, community- based, social justice sensibility.

However, the dominant discourses within the broader international and post-liberation, national contexts articulate a view of mathematical literacy as a *prerequisite* for technological advancement, economic growth and the improvement of socio-economic

[F] It is difficult, or even problematic, to claim to know whether a community problem was solved 'mathematically', or not. What criteria do we use, then, to demarcate and classify what is essentially or sufficiently 'mathematical'? [Boundary-work again! (Gieryn, 1983)]. Perhaps it is sufficient to say that if there are recognizably mathematical elements, then the solution to the problem can be deemed 'mathematical'. Unfortunately, and ironically, this again sustains the mythologizing gaze of mathematics that colonizes social or other non-mathematical elements into its realm. In an attempt to circumvent this dilemma, we could perhaps, as an alternative, substitute 'mathematically', in the sentence, with 'using more advanced mathematical competencies'.

conditions for the 'greater well-being' of a nation's citizens and the maintenance of the nation state... a neo-liberal 'master narrative' on 'democracy' situated within a ubiquitous, 'cause-and-effect', positivist framework, providing its own defining 'recognition rules' and 'realisation rules' (Bernstein, 2000) for contextually-attained 'success' or 'failure'. The dominant messages from the social domain mark out the rules for 'success' according to a well-delineated continuum, providing separations and attritions in congruence with a Social Darwinianist model of survival of the fittest, most able, most ego-driven, most individual-focused, most advantaged. Within this paradigm, to be able to 'succeed', the linear, process-based, 'progress' model must be followed, from *individual* as 'unit' towards a *collective* ideal of 'nationhood' – individual achievement towards sustained social-economic growth and competitive global advantage.

However, the flaw in the rhetoric of the 'progress' model ideal is that, for it to be successful within the capitalist mode of production, the 'success' of some is necessarily premised on the disadvantaging and constructed failure of 'others'. Here, the moral imperatives recruited in constructing an inclusive, community-based pedagogy for mathematics education in the first, 'impoverished' school context are displaced and weakened by the strength of voice of rampant, neo-liberalism and its appeal to nationalistic, technologically-premised, socio-economic progress.

Placing local community needs as a *pre-condition* or at the *forefront* of the educational process, serves as a prolepsis within the 'individual—nation-hood' continuum. These set of ideals are differentially positioned outside of the master narrative and rendered

obsolete by the force of the utilitarian, 'economic globalization', 'process' model on mathematics education and the instrumentalist exigencies they dictate under the auspices of a fervent discourse on 'democracy'. As sequitur, in this global competitive economic framework, with its proverbial overarching emphasis on *pecuniae oboediunt omnia*[G], it is almost trite to ask: who then is the winner and who is the loser? … What does "empowerment" then *actually* mean, for whom, and …who is actually "empowered", for whose benefit … *at all*? I am reminded of Bernstein's (1993) remark: "in whose interest is the apartness of things, and in whose interest is the new togetherness and new integration" (p. 122).

And yet, mutating the position of our vantage point, one can argue that such notions of 'empowerment' which we bandy about as membership logos to our projects of activism, are complex, ideologically-situated and nuanced, and can command no universal understandings of the emphases of the social and political agendas they necessitate. This is most poignantly exemplified in a conversation I recall having, at an international education conference in Beijing in 2002, with a 'black' South African teacher, I will call Moses, working in a so-called 'impoverished'/ 'historically black' secondary school in Soweto.

Moses asks about my research and what my research intention is. After listening to my explanation for a while, and hearing me use the word "empowerment" on several occasions, he responds politely, but directly (in a recognizably cultural 'South African' manner) with: "Empowerment …, empowerment … empowerment! They tell us we have

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[G] Latin: literally: "all things yield to money".

a lack, that we are supposed to be here", he gesticulates a movement suggesting 'progress', "and that we need to be here, and then here. They tell us that we are disempowered and inform us what must be relevant for us to be empowered. I *don't feel* disempowered, but I am *told that I am* disempowered and what I have *to be* to be empowered."

The full weight of his response and the power of its implications for positions of activism, including my own, are tremendous. Again, as happened many times in my research journey, I am *humbled in health* – gifted with a vital space for personal growth, identity-development and spiritual and philosophical enlightenment… a 'becoming'. As much as Moses' statement is profoundly provocative, it concomitantly provides a powerful self-learning opportunity and opens up a critical, revelational space for self-interrogation that questions the epistemic locations of our activism and the ontology of knowing, not only what 'truth' is, but what is fundamentally 'right' and 'just', and *who authors this*. The all pervasive assumption that a principled person, motivated by personal integrity and moral conviction, acts *ex aequo et bono* [H], (according to what is just and good), begs the question of the nature of moral rectitude – of what defines 'goodness' and 'justice'; *how* can it be known and *what* does it mean to *whom* within *which* political landscape? Given the dilemmas of perspective it proliferates in relation to principles of power, what, then, are the referents for defining, or judging, the ethics of an action?[17]

And then… on yet another hand, is it not our duty to examine, as researchers, the judicable nature of those referents, even if we can never fully know with any absolute

[H] Latin: equitably, or, according to what is right and good.

authority, the right or wrong of the perspectives that are generated and produced through an ethically–fraught action, … and, at the same time, without falling into a vortex of relativism and indeterminateness?

And so I ask, what is Moses' location and what are the set of stimuli producing this articulation of his position on 'empowerment'? *Who* is "telling" Moses that he is disempowered? What is the source of these messages? Why is he personalizing this perspective on disempowerment? Is it so coercively embedded in the fibre of social context and the dominant discourses in the social domain, that even as he contests it, it carries the authorial voice of the "deficit" metanarrative in such a way that it holds the production of meaning ransom, even as it *precedes* any verbal articulation of it?

Yes, I am humbled by Moses' contestation of the extraneous gaze (semiotically recruited through my articulation of "empowerment") which produces and reifies positions of disempowerment for him and 'his people' in ways that categorize, objectify, essentialize and homogenize communities, oppressively holding them to these descriptions through the language of disempowerment.

But, even as I am humbled, I also feel obliged, from a sociological perspective, to question the connections between his 'way of looking' with respect to the structural conditions that produce 'disempowerment' and the subject positions he is locating in relation to this discourse. And so, again, I must ask, is Moses perhaps trying to distance himself from the community in which he teaches, so that he is not painted with the same brush of 'poverty'? At face value, he certainly does not fit the mold of 'impoverishment'

or 'disadvantage' in the stereotypical sense (except through the construction of 'race' whose historical imperatives have tied it to the latter constructions, especially within the Apartheid context). For one, he is studying for his Masters in Education and is presenting a paper at an international conference in China, while maintaining his position as teacher within a Sowetan school. Yet, in contradiction, he makes remarks in general conversation to the effect that he is "just a Soweto boy"! Why does he feel he needs to do this and how does it relate, via the principle of power in the processes of positioning and posturing, to his remarks on disempowerment? Are they apparently paradoxical, yet analytically congruent? What can we conclude then? Is he insider or outsider? Can we... may we make a judgment? Is he speaking from a position of privilege or disadvantage?

Consequently, is he resisting being positioned as 'disempowered', or is this a legitimate 'disempowered voice' speaking back to the referential gaze that produces constructed 'disempowerment'? (Notice how our language eludes us ...constructing even as we attempt to deconstruct it). In the interests of a critical analysis which addresses the politics of power and makes available the referential gaze which produces the relativities of power which produces it, is it then *permissible* to ask if Moses is 'entitled' to make this call as an *insider* or is his 'rebuttal' more to do with resistance to a perceived subject position ... a desire to be an *outsider* on 'disempowerment' rather than a socially

enforced *insider* through the localizing discourse on Moses' 'race' and his location [I] of work in relation to apartheid history?

I notice how I am well into a deontological argument now, where the political and the moral are blurred. I also notice that in the process of asking the fore-mentioned questions, I am caught up in binaries and oppositions ... all socially constructed.

A modernist, positivist, dualistic framework informs my questions, even as I am attempting to divest myself of its influence. It speaks more to "the way we see" and "the way we look", (hooks, 1995, p.4) than it does to speak the 'truth' on *legitimate spaces of being* regarding Moses' insider/outsider dichotomy. Which is real and which the fake, if at all, or are both possible, collapsing all distinctions? Perhaps I am caught up in using simulacra [J] in an attempt to understand complexity. Lather (1994) tells me that: "Using

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[I] This could be regarded as a pun. A South African reading this text may well view it as such. The term 'location' was used in the old apartheid era as referring to a black township. A formal black settlement that was segregated, although often adjoining 'white' areas, was referred to as a 'location'. Soweto would have been referred to as a location, carrying all the original apartheid associations of the word – poverty, race, segregation, including political boundaries in general, limitations and, most particularly, hardship.

[J] Here I am using simulacrum, or the simulacrum has been created through the narration, and may serve as a constructive contribution to contesting essentialized/ing discourse (as consistent with Lather's point of view). However, I have argued elsewhere that the production of simulacra is a consequence of the colonizing gaze which produces it, and therefore destructive. Consequently, from my perspective, simulacra can be viewed as either 'positive' or 'negative' depending on the context in which they are used/ created, and in the extent to which they facilitate, or not, working through contentious arguments. I would add, however, that a simulacrum left uncontested, is likely to carry the dominant/colonizing voice of hegemony, so that it represents the silence of what it is not, or is the signifier of a latent silence, or voicelessness. A simulacrum created for the purposes of contestation of hegemony, to symbolically act against master narratives, serves a different voice... although it is still the representative shell of what it is not, yet it carries the critical voice of counter-hegemony. From a position of advocacy, it is therefore up to us to ensure that through the use of simulacrum as means, it is not a *hollow* voice, (in all senses of this word) ...

simulacra to resist the hold of the real and to foreground radical unknowability, the invisible can be made intelligible via objects that are about nonobjecthood" (p.41). Perhaps, I am now engaged in a leap of faith in that which is insecure and unpremised, unknowable but accessible to description if not representation, legitimate in its absence from 'truth'. This is what Lather refers to as nomadic, dispersed or *ironic validity* – a validity achieved, paradoxically, through foregrounding and describing the impossibility of representation through its "failure to represent what it points toward but can never reach" (Hayles, 1990, p. 261, in Lather 1994, p. 41). This engagement with 'ironic validity' is a deconstructive mode of research practice resisting simplistic representation and simple reversal or replacement:

> by inscribing heterogeneity within an opposition so as to displace it and disorient its antagonistic defining terms ... to subvert it by repeating it, dislocating it fractionally through parody, dissimulation, simulacrum, ... that mocks the binary structure... (Young, 1990, p. 209, in Lather, 1994, p. 41)

It is with this commitment to complexity and the destabilization of authorship of the legitimate spaces that define the oppositional terms from which our moral compass finds reference, that I tentatively draw a connection. It is a connection with the simulacrum I have putatively created regarding Moses' distancing himself from his community with its concomitant referents of 'poverty', and that of *similar* teacher discourse I noticed in the 'impoverished' Cape schools in which I undertook my research. Here, there were resonant discourse indicators in which the teachers highlighted class distinctions and reinforced distances from the learners they taught. I notice this congruence even as I grant consideration to the relational nature of their positioning of me in context and my

reciprocal gaze on them, and how this shapes and selects the discourse. Nevertheless, it is my interest to note reciprocity between - the procedural and indifferent methods often employed in mathematics teaching in these classrooms – and the 'distancing discourse' preceding these contexts of learning that inform and reinforce the *poverty* learning within them. … Or am I, again, imposing a notion of 'disempowerment' on this context, unable to see or provide pre-authored referents to articulate, in contrast, the possible spiritual and social, if not economic, *wealth* (again, I am forced into the binaries of noticeably antonymic language; 'poverty' set against 'wealth') embedded in the context and for which it provides its own resistant validity, as highlighted in Moses' words to me?

Or are these then simultaneous, yet hybrid 'truths', complementary if incompatible, that reside with each other, uncomfortably, but ever dialogical even as they refuse closure? Are they valid positions of presentation, paralogical against the sophistry of master narratives, disruptive, dissensual and incommensurate, yet ever interdependent and reciprocally validating in co-existence?

My stream of consciousness has led me through rhizomatic pathways away from the roots of my argument but having the source of such ever present as a resource for expressing complexity, heterogeneity of perspective, and interconnectedness. I have unsettled my own position as I have unsettled and subverted the linearity of formal logic and 'process-driven' rigour. Albeit tentatively and questioningly, I have uprooted a notion of the ethical as stable, and rhizomatically proliferated forms of knowing and truth-production that serve to counter traditionally 'valid' epistemologies…. But this is no place to rest! To rest here would be to become hemmed in by the overgrowth of

uncirculated thought. Being unable to settle in the unsettled, find solace in the disconcerting, I journey on to search the filaments of networks that weave the argument, even as they thread their hybrid cloth according to their own internal pattern, apprenticing themselves in/into the process. ....

And now my consciousness dwells for a moment on the metaphor of rhizomes as it informs my research, how the filaments have nodes of ideas and concepts, clusters of thoughts, which hang together tenuously, yet vividly, and then slip into ever possible ramifications, ... thoughts and threads of arguments I could choose to follow or not... and upon arrival, each node is different and pregnant with hybrid possibilities[18]... and I must choose the next thread or find a return path with glistening nodes of possibilities all about me, ... similar, perhaps, to a string of bright Zulu beads, each colour having its own meaning, its own message. And, like African cultural beads in commodified contexts, which visually inform interpretive 'difference' through exoticism and mark out the existence of 'culture', I question too their purpose in the production of 'culture' as simulacrum... and I am led back to remembering classrooms in the impoverished schools I researched and the *discourse of distance* which some teachers invested in ... and I realize, like an epiphany, that it would take much more than *a string of cultural beads* to bind them to their students!!

The 'cultural beads' serve as a mnemonic to the variegated argument I have engaged with in attempting to illuminate the power principles, dichotomies and discontinuities in discourse on democracy in school mathematics classrooms in localized contexts. In continuation of my peripatetic research journey, I am back in the workshop with Rena ...

The sunlight has changed as it glances through the windows, softer and less secure as the afternoon moves on. As we sit and talk in our group, I notice another workshop participant that I will call Kabelo get up from her chair and walk over to where my daughter is sitting reading by a window at the side of the room. She sits in the chair opposite her and smiles. I hear her calling my daughter 'Loreto', meaning 'love' in Sotho, the nickname of endearment given to her by a group of delegates at the conference. The profiles of Kabelo and my daughter are in relief against the light of the window and their differences in ethnicity have no visual distinction at this moment. All I can see in silhouette is their connection as they smile and laugh as they talk. I notice my daughter handing her Alice band (head band) to the participant who takes it graciously, thanks her and returns to her seat.[19] The light in the seminar room has moved again and dusky shadows begin to play mischievously, like tokiloshies [K], in the corners of the room... perhaps even playing tricks on my own perception [20]...

The time for each group to present their thoughts on the project idea has come. After our group presentation, Kabelo stands up with the borrowed headband to represent her group. She shows the workshop participants the Alice band, a product of our land, woven carefully in bright and colourful beads, with repeating patterns of slowly diminishing triangular shapes ... a recognizably Zulu pattern of beadwork found on many beautifully handcrafted objects of indigenous art.[L]

[K] Tokoloshie: An African folklore spirit who is a trickster and harbinger of bad luck, similar to Raven in some First Nations' lore.

[L] I am aware that I may be accused of romanticizing Zulu culture here through the description of beadwork. I would argue, however, that my description, whether deemed a romantic interpretation or not, arises, more importantly, from a somatic and spiritual connection with the people, the land of my birth, and my pride of place.

Kabelo begins to explain how she sees her students doing a project that examines "the mathematics in cultural beads". She starts to provide examples of how this could bring 'relevance' in the classroom and make the students feel 'counted'.[21] She then explains how the students could look at the patterns and notice how they repeat themselves … the beads could be used to explain … … counting, and perhaps multiplication [22] … but actually the lines are not parallel, so you would have to make them parallel … the students would just have to imagine them parallel, otherwise the maths starts to get too complicated … she hears me asking if the condition of non-parallelism could not be used to initiate a discussion on non-Euclidean geometry … perhaps the fact that the lines are divergent could be used as a fertile moment to investigate other geometric forms … but she thinks this will be too hard for elementary kids to understand [23] … it won't be 'relevant' to them … so we will have to stick with what counts …. Multiplication! … … They could practice their multiplication tables!!

I feel completely deflated and confused! I hear myself asking, tentatively, trying to hide my exasperation, whether or not this is about mathematics at all … that in trying to create 'relevance', the mathematics became trivialized … the process was reductionist [24], and I ask how this is empowering? I want to say more … that I think it is patronizing and a mis-use of mathematics, diminishing its creative power yet using its semiotic authority in the broader global domain for the creation of 'otherness' in the classroom under the auspices of an emancipatory pedagogy. This is mythology at its ultimate, the warping of meanings to achieve incompatible ends. This was sophistry at its best!

But in this context I suddenly feel alienated and alienating… I am conscious of the interpretation my criticalness presents within this context; how it could be viewed 'in performance' and taken up by this participatory audience. A questioning of the use of a cultural artifact as a mathematical tool towards empowerment and cultural emancipation (and even as I enunciate it, the syllogistic argument seems spurious and 'illogical') might easily be infused into/ confused with, the multicultural discourse which views the classroom as a site of struggle against hegemonic / colonizing discourses, and a place for contestation and (re)creation of 'new' social and national identities through 'new' stories. And, of course, this is critically important!

And so, this human endeavour of mine is shaped and given meaning through the specific social, cultural and historical setting. It is a context with its own system of signification and recognition rules for appropriacy. I can feel here that something which is seen as speaking against the ethos of "cultural embrace" pervading this context, may well be viewed as colonizing discourse, *even if* the underlying interests are to make visible the *colonizing agency* through the commodification of a cultural artifact in the mathematics classroom. This, again, has become an issue of propinquity with respect to my personal motivations and analytical viewpoint in relation to Rena's, and there is the threat of distance within this proximity.

Where the ubuntu [M] now? I don't want to come across as undermining Rena's efforts or sound 'culturally distinct' or divisive. I am conscious of not wanting to sound autocratic

[M] A reminder of the meaning of ubuntu: the African concept of brotherhood or sisterhood, and is fundamental to indigenous African 'ways of knowing' and living, in the truly spiritual African sense. I have also heard it expressed as 'living within each other's spirits'!

in the style of scenarios which repeated themselves ad nauseam in the Apartheid South African context… a white person telling a black person how to think on a particular issue, 'showing' them how they are being 'illogical'[N], providing 'illumination' to their 'benighted' plight. And doing this, oblivious of the situational or cultural contingencies within the 'other's' sphere of lived experience by which personal or collective understandings are achieved and 'ways of looking' and 'knowing' are constructed.

I do not want to be perceived in this light, speaking within the governmentality of whiteness (McLaren, Leonardo and Allen, 2000), lacking in reflexive understanding or empathy.[25] Further, I am aware that it may well be my own ignorance that disallows me appreciating this proposed 'ethnomathematical' method and that I am unable to appreciate the full implication of its benefits through my own untempered 'way of looking'. Perhaps, through the inordinacy and force of my own commitment to what I deem to be 'a mathematics of empowerment', I have, instead, achieved intransigence, "fix"ation and ignorance, instead of enlightenment. Perhaps I am even ignorant of my own ignorance, so, I say no more…

And then, the chreodic path moves on again, … I hear Rena, who has also apparently 'seen' the dilemma, respond to my comment and acknowledge the difficulty with "this kind of work", but she goes on to affirm that, in her opinion, it *does* have a purpose in trying to give the mathematics a connection with "the students' culture" … something that "they need"! … I am silent, but it is a silence that speaks in dilemmatic discontent.... The wind has shifted the leaves…

[N] The "white is right" principle of patriarchy.

Who am I to talk about whether or not this connects with "student culture"; how can I (or Rena, for that matter) even know what "student culture" really means, speak about its 'relevance' on students' behalf, or pontificate on what their "needs" actually are! I remember a conversation with a faculty member in my university's Curriculum Studies Department, Walt Werner, in which he spoke about his frustration with student teachers in the Teacher Education Program, in the sense of how his student teachers always spoke about what the students 'needed'. "I always ask them", he says, "how do you know what your students need? How can you presume 'to know'; how can you speak for their needs and think you are teaching accordingly?"

And I see how pertinent his comment is in *this* context of speaking for what is purported to be 'relevant' in these South African students' lives … their hopes and fears, their consensual relationship with or alienation from school perhaps, or even their possible daily issues, or not, with domestic violence or a mother dying from AIDS – all reduced to a *string of cultural beads*, reified as 'relevant' through the ideology of a discourse on 'critical mathematics'. And this discourse is sustained by the powerful voice of *mathematics* itself, as supported relationally by globalizing discourses in the social domain and as institutionalized within schools! Surely, this mathematics pedagogy cannot be emancipatory if it is telling them what they must be, (Is this what Moses meant?), what that must look like 'culturally', what their 'needs' are – through a pedagogy on school mathematics?

I believe it is unethical in that it provides false hope. It suggests that mathematics can provide liberation and create 'relevance' in their lives, while lying to them that it can empower them, and while simultaneously denying them, through such practices, the recognition and realization rules of school mathematics in general as defined through a standards-based curriculum. It is a pedagogy that beguiles - offering 'relevance', while providing disconnections in the exposition of mathematics discourse, disallowing the discursive elaboration of the esoteric domain of mathematics, which permits generalizations and the possibility of the impossible…

This 'relevance' mathematics, instead, ties them to the bounded, impermeable, simplistic interpretations of an impoverished school mathematics that cannot provide the tools for liberation or empowerment as it professes to do, but holds them to the mundane in mathematics – *mere multiplication tables!* And it does it under the auspices of liberation in a particular ideological way so that other ways of being are never made available to them – claiming "success", through the sale of 'relevance' in the guise of a *strings of bright beads*, while permitting only reproduced "failure"![26] Oh, what a great, expensive, unaffordable cost, in the name of national identity-creation, cloaked and commodified in the *rhetoric of relevance*! [27]

And how *irrelevant*, to a South Africa in change, to use commodified representations of

culture [O] that fossilize, essentialize and stagnate, and that recruit notions of the past for present cultural validity.[28] The 'cultural beads' represent an artifact that invokes notions of culture as tribalistic, producing a self-othering by romanticizing and exoticizing 'own culture'. How dangerous, the hidden self-colonizing pedagogy it obfuscates! This 'ethnomathematics' practice creates "consensual rituals" (Bernstein, 1973, p. 55) [29] to create group identity, yet at the same time invokes differentiating/ dissensual rituals (ibid.) to make this practice relevant to a group, a 'cultural' group, and therefore exclusive to it. With *exclusiveness* comes pedagogic *exclusion!* In the process, the mathematics becomes trivialized and the students are localized within the public domain of mathematics practice (Dowling, 1998); held to the mundane (Bernstein, 2000), left out in the cold, away from mathematics' generalizing practices and the illuminations (albeit only mathematical illuminations) it may generate.

This is made all the more problematic by its *acceptance* as mathematics, and by claiming it to be emancipatory. I am un-nerved, and I begin to wonder if this is not a representation, albeit in a different guise, of what Khuzwayo (1997, 1998) has referred to as an "occupation of the mind". In his study of the history of mathematics education in South Africa, Khuzwayo showed how mathematics education followed the Bantu education objective of preventing social advancement for Black people in South Africa.

[O] Note that the headband is not a 'truly' indigenous object in the historical, tribalistic sense. The beadwork in Zulu culture was used for adorning pots, urns and other utensils of daily use, as well as writing love letters and other forms of communication. The beaded Alice band is a European/Western commodification of the cultural practice of indigenous beadwork for solely commercial purposes (usually sold to tourists). It is therefore a decontextualisation of a cultural artifact, or even a simulacrum.

He quotes H. Verwoerd's, now famous, statement in his address to the South African Senate in 1954, as proof of this intended "occupation of the mind" policy:

> When I have control over Native education I will reform it so that the Natives will be taught from childhood to realise that the equality with Europeans is not for them (...) People who believe in equality are not desirable teachers for Natives (...) What is the use of teaching the Bantu mathematics when he cannot use it in practice? (cited in Khuzwayo, 1997, p. 9)

I shudder at the possibility that insidiously infused in the *acceptance* of the trivialized mathematics, is Apartheid's "occupation of the mind" of the people, still alive and well! Is it, again, the Freirien concept of the oppressed/colonized learning to oppress/colonize themselves, perpetuating the conditions of oppression subconsciously by not making visible the invisible pedagogies of oppression and poverty [P], whilst promoting a "pedagogy of liberation" in its name, thus maintaining the status quo? Is it that, in the Lacanian sense, "a letter always arrives at its destination"? Gerofsky (1996) describes one of Slavoj Zižek's (1991) interpretations of this Lacanian aphorism symbolically to

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[P] Although poverty and oppression are, in fact, extrinsically *visible pedagogies* in the sense that they have clear, self-evident hierarchical distinction from privileged codes of power, here I mean that they can also operate *invisibly* within context (intrinsically) in their construction of meaning, in that they are often insidious, self-circulating and localized. This either prevents a broader, reflective perspective on the modes of operation within poverty pedagogies, or, even if multiple consciousnesses are available, to those situated within these contexts, the means to 'make/do otherwise' is not always available. In Bernstein's (2000) terms, this could be spoken of in terms of *recognition* and *realization* rules of a practice. Either both recognition and realization rules are not available, or the recognition rules for empowerment/success are read, but there is no access to the means, i.e. the realization rules. In both cases, positions of alienation result. This is the engagement of power relations, so that the power to provide perspective or means, and to halt, reverse or contest the modes of operation of such pedagogies, are not always available within positions of poverty and oppression. Here in this sense, I am not using visible and invisible pedagogies in precise accordance with Bernstein's use of them, which are more specifically defined in accordance with his sociological theory of pedagogic codes and their modalities, and how these relate to his concepts of the 'classification' and 'framing' of discourses.

imply that "the sender always receives from the receiver his (sic) own message in reverse form", and "the repressed always returns" (p. 12)? [Q]

For a fledgling democracy, attempting to incorporate democratic principles of learning within our educational structures, where does this sit? In our haste to democratize our educational practices, are we, contradictorily, *reducing* democratic possibilities for our nation's people through a socio-cultural recontextualizing of mathematical practices ad absurdum [R]... thus continuously 'mailing off' the operations of a Bantu education doctrine as our destiny/destination? ... As both senders and addressees [S], *oh, woe is us!*

[Q] This is in alignment with the policy of Apartheid as a whole and the reverberating consequences of the enactments and implementation of this policy for South Africa. Zizek explains how the letter that always arrives at its destination, says more than what was intended, and only when the consequences are enacted can the effects be known. In this sense, "there is no repression previous to the return of the repressed". The architects of Apartheid mailed off the unintended effects of Apartheid to a nation, the dire and destructive consequences of which returned to haunt them like a multi-headed hydra... for every head lopped off, a myriad more growing in its place. The message has returned in the letter of Bantu education, but it returned addressed to us all!

[R] Latin: meaning 'to absurdity', much like a "reductio ad absurdum" argument. "reductio ad absurdum" means 'reducing to the absurd', most often used in mathematical proofs. It is however, considered the weakest form/method of proof, as it proves a statement/condition to be true by making an initial false/contrary assumption which would then, when followed to its logical conclusion, result in the condition/statement being impossible, i.e. by reducing it to the absurd. In the context I have used this Latin, perhaps the opposite premise applies, i.e. "absurdo ad reductium", a recontextualization of mathematical practices towards the "relevance" of the everyday/everyday culture until the point of *absurdity* is reached, resulting in the *reduction* of the mathematical principles at hand.

[S] It can be further interpreted that a letter always arrives at its destination, because that is where the letter arrives. Hence, wherever the letter arrives, is its destination. Even an unsent letter arrives at its destination, being the address of the sender. From a perspective which views how 'silence' operates, one could say that what was not sent, also has meaning as it is a message sent in reverse, i.e. 'returned to sender'. Further, one could argue that what was not sent in the letter in the form of Apartheid policies was also returned to sender... The disempowerment and 'silencing' of the majority of South African citizens on the basis of their ethnicity (socially constructed in terms of 'race' and 'culture') has returned in terms of an all-pervasive disempowerment of our nation. Hence, both sender and addressee are implicated, in every way.

I am reminded of Skovsmose's and Valero's (2001) words:

> a mathematics education that is committed to democracy cannot simply rest on the intrinsic qualities of mathematics or the conceptual constructs of the discipline itself. Instead, many social, political, economic, and cultural factors have to be seen as constantly directing and redirecting its development. (p.43)

At one level, how correct this is! Mathematics, in my opinion, has little *intrinsic resonance* with democracy. In fact, it could and has been argued that school mathematics, through its "mythologizing gaze" and its investment in the politico-ideological objectives found in "boundary work" (Gieryn, 1983) within the discipline of science, which also incorporates rampant technocist utilitarianism, is the most divisive and fundamentally undemocratic subject on the school curriculum. This has had dire consequences for those on which it has impacted in its extrapolation to the world of work, or non-work, as a lived reality (most especially in the South African context where the unemployment rate runs above 35% of the 'employable' population).

Unfortunately, it is a brutal reality that the world is divided unmercifully into those who "can" and those who "cannot" 'do' [30] mathematics. These divisions have ramifications in areas beyond the applications of mathematics but in whose authority the further lived realities of the 'cans' and 'cannots' rest. Rather than just being unavailable to democratic principles through its aloof appeal to objectivity and the clinicism of science, I would argue that mathematics education, for the most part, displays profound *dissonance* with democratic principles,[T] despite arguments in critical and progressive mathematics

[T] In this regard, Skovsmose and Valero (2001) argue: "Breaking political neutrality demands deliberate action to commit mathematics education to democracy" (p. 53).

education which testify to "better" or "improved" practices. The reality is that, throughout the world, mathematics education practices have, and still do, produce divisions synonymous with divisions of labour, in which further divisions of gender, ethnicity, social class, able-bodiedness and intellectual 'ability' inhere.

But, it is the second point that Skovsmose makes that concerns me! Again, it is not the problem itself that is being contested, but *how* one arrives at the/a 'solution'. Or, to abort the tedious, unhelpful continuum of problem-Solution, problem-Solution,[31] ... perhaps it is how we seek *resolution*, instead of *solution*....

It is Skovsmose's point about the need for the socio-political *redirecting* of mathematics education that carries a subtle weakness in its simplification of argumentation [U], for it is the very *instrumentalist* nature of mathematics education that is the problem here. To apply an instrumentalist philosophy upon an instrumentalist philosophy,[V] made problematic by its very instrumentalist nature, is to use the means of the perpetrator to perpetrate. It may well be argued, that 'the means supports the ends', but if 'the ends' rest on an uncontested acceptance of the moral rightness of that ideology, even if it is purported that that ideological premise is a 'democratic' one, then, contradictorily,

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[U] The appeal to democratize mathematics education is often embraced without full consideration of the defining principles of democracy which make such a process necessarily complex and difficult. To imply that this is a simple matter of redirection of the ideological tenets underlying its implementation and practices, is naïve and unproductive, and simply holds mathematics education to ransom and disempowers rather than liberates thought. In other words it suffers from its own internalism. I am again reminded of Umberto Eco's (1979) words: "A democratic civilization will save itself only if it makes the language of the image a stimulus for critical reflection – not an invitation for hypnosis."

[V] See Ernest (1991) for broad discussion on the philosophy of mathematics education.

democracy, which foundationally rests on openness and dialogue, is undermined through the process.

No, 'the ends', do not, carte blanche, support 'the means'! 'The means' need to be thoroughly contested, each step of the way, so that 'the ends' do not *silence* the means! How we arrive at a democratic education is more critical than arriving there[W]. For we may well find out that in the process of ensuring its arrival, through forcing it to our will, we may be applying the very terms of the enemy (authoritarianism, dominance), thereby undermining our objectives, so that the product of our actions/advocacy looks very different from what we expected it to... In fact, it may very much begin to look like *the product of the enemy itself!* [32]

And so, in my journeying, I move on to another, different, yet similar, place...
Elliot Eisner (2001) bemoans the trend towards pluralism in art education, which suggests that art is dead or, at least, elitist, and needs to be made "more socially relevant to the real needs of students in the 21st century" (p. 7). Here, the 'study of art' for its own sake, whatever form this takes, is to be substituted for 'the study of visual culture'. While Eisner accepts that the orientation towards placing visual form in its socio-

[W] It can easily be argued that we can never 'truly' arrive at a democratic education, in any event, as such a 'destination' is utopian by definition. I argue that democracy is an ideal or a collective orientation of mind (much like the concept of 'mindfulness' in Buddhism) to which we aspire and direct our efforts, borne out of moral conviction and social conscience, despite and beyond knowing that this ideal may never be fully realizable. Rather than this making democracy education annihilative or pointless, it creates an inchoate, generative and creative space of purposefulness, while continuously allowing for a 'coming to be' rather than residing in a condition or state of being. However, I believe that it should also be recognized that the utopian objectives of democratic education, when forced into the accountability modes of standards-driven reform and the technocist, rationalized evaluation approaches these necessitate, create an ideological disjuncture and, consequently, a discursive gap which situates students (and teachers) in positions of alienation or disadvantage with respect to these discourses.

historical form is an appealing one, and that he agrees that students should be encouraged to recognize that the aesthetic judgment of art, across different genres, has been utterly arbitrary, bourgeois, and has bourgeoned social consequences, he also expresses discomfort at the reductionist orientation of viewing art, merely as a political product. Rather than viewing 'the fine arts' as "dazzling or even high human achievements", they now become viewed "as products representing what those in power choose to praise" (p. 8). Eisner feels that the value of art in the form of the "joy" of doing art, and the teachers' sharing this joy with students as a "quality of life experience", is compromised by this political orientation. Further, the unanticipated, surprising opportunities that unfold in the generative process of creating art, and "making judgments about relationships that are rooted in one's own somatic experience", have value beyond the spectator approach of viewing art merely as an object for political analysis. Eisner says of this:

> I would not like to see such opportunities compromised because from my perspective they stimulate, develop, and refine among the highest and most sophisticated forms of human cognition; they marry thought and emotion in the service of meaning. They help us learn to see and to feel what we see. The arts are eye openers. (p. 9)

In Eisner's opinion, the form of pluralism that "relativizes the value of art into political analysis of anything visual" (ibid.), is reductionist and ties art, art education and teacher practices to a narrowly-defined, politically interpreted concept of 'relevance', and diminishes the contributions which art and art teaching can make to a wider scope of understanding of what it means to be human. [33] As with mathematics education, so with art education, where are the possibilities of 'the beyondness of thought' now?

The analogous relationship between art education and mathematics education in terms of the trend towards a critical theory perspective which necessitates a consideration of these knowledge forms in terms of their 'relevance', is, no doubt, manifest across the disciplines. However, it is more pronounced in certain disciplines in comparison to others, and more visibly engaged with in certain contexts compared to others. The socio-political context in which the discipline is practiced or taught informs the mode and expression of these practices, or the degree to which this orientation is embraced, or not. But the *nature* of the knowledge form or discipline, its internal structure and relationship with other discourses, is implicated in the way it is recontextualised by this orientation.

Basil Bernstein's (2000) arguments asserting the incommensurability of *vertical* and *horizontal* discourses, strongly informs this debate [34]. Bernstein argues that vertical and horizontal discourses are structured completely differently, as are their modes of production. Here, mathematics education is strongly implicated, in the sense that the discipline of mathematics is a vivid example of a vertical discourse, possessing "high discursive saturation" and enjoying great prominence in the "social division of labour of discourses" (Bernstein, 2000) within schools. The critical perspective on 'relevance' in mathematics education is a mode of practice that will have mathematics behave as a horizontal discourse, compounding the discursive disjuncture that is produced through the incompatibility of these two knowledge forms. It is within this silence-producing discursive disjuncture that disadvantage is (re)produced for students and teachers caught within the 'falling spaces' of misaligned knowledge forms whose different modes of production produce learning objectives which work at cross-purposes with each other.

Davis (2003) makes a similar connection as Eisner between art for its own sake and its place in political context, and, as I have done here already, views this as analogous to similar trends in mathematics education. Davis says:

> What is, ideally, more explicitly (re)produced then is the discursive structure that frames the object that counts (or fails to count) as art. In different terms, what is (re)produced today is the *place* of art rather than a series of obviously exemplary aesthetic objects (cf. Zižek (2000)). This means that a strong line of distinction is drawn between the object and the place it occupies, the effect of which is to draw attention to the specificity of the place that frames art. (p.4)

Davis sees a similar trend occurring within the mathematics education field, fuelled by global trends in "pedagogic constructivist" principles which reinforce the claimed need for mathematics to be held to reproduce meanings within 'everyday'/'non-mathematical' situations, for its progressivist validity. This orientation is set against the outmoded 'traditionalist' approach which left the learner disengaged and alienated from the discourse. Davis sees the emergence of pedagogic constructivism as similar in effect to the contemporary trend which allots art meaning by its being "made to function to (re)produce the place of art". By extrapolation, the "non-mathematical is mathematically meaningful if it enables the (re)production of the place of mathematics" (p. 5). Viewing this trend historically, its legitimacy premised on the rejection of the mechanical and 'empty' (re)production of the 'traditional' mode of pedagogic regulation in mathematics teaching and learning, Davis avers: "So, just as the beauty-in-itself came to be rejected as a criterion in the judgment of art, explicit mathematical expression-in-itself came to be rejected as a reliable index of the (re)production of mathematical thought" (ibid.).

Consequently, the vehement rejection of the traditionalist approach in its entirety, opened the door for an entirely new pedagogic regime which attempted to fill in the gap, as its main premise, created by the 'disconnections to real life' which the traditionalist approach inferred. This opening gave the "global move to constructivist-inspired pedagogies a foothold in official curricula in South Africa" (p. 5).[35] Where now the 'relevance' of local contexts and situated accounts in the (re)production of pedagogic practices, when globalized by the regulatory principles of pedagogic constructivism and its universalisms? In very damming terms, and in contravention of the freedoms inspired by our fledgling democracy [36], Davis notes:

> What the South African pedagogic constructivists did not take into account in their critique of "traditional" mathematics education was how they were opening the door to a utilitarian restructuring of the curriculum that they would be unable to resist and which would ultimately assign to them the role of vanishing mediator between apartheid mathematics education and the utilitarian "mathematical literacy" of Curriculum 2005. The pedagogic constructivists were doomed the moment they opted to exploit the popularist ideological hook that goes by the name of "relevance". (ibid.) ....

How now the mathematical empowerment of the people in the name of "liberation"?...

I am projected a little way into the future… I am sitting in a classroom in "Visserman's Baai Laer" (Fisherman's Bay Elementary). The teacher is teaching 'fractions' to a group of fifty grade 7's. There is no pedagogic constructivism here. There is only the traditional mode, a highly abbreviated transmission mode [37], given in Afrikaans: "This is a fraction… it has a top and a bottom. The top is the numerator, the bottom is the denominator. Five over ten equals one over two. This is called an equivalent fraction. Now find the following equivalent fractions by working in groups… ". A list of fractions is written on the chalkboard while the class is asked to keep still. They are already 'still'.

A girl student is ordered to the office to get some paper. She is confused. What kind of paper? She doesn't know what the paper is for. She has never been requested to do this before. The teacher tells the girl to tell the secretary that the paper is for 'group work' and, in the same breath, she reprimands her for dilly dallying. The girl's delay highlights that this is not common practice for the teacher. The girl's confusion is embarrassing her.

The teacher is conscious of my presence in the room, and because of her subjective positioning of me, she feels obliged to attempt at least one modality of 'progressive teaching practice' – group work! The class is told to sit still while we are waiting for the paper. The paper arrives… two sheets of paper for each table. The students look at each other. Some, all girls, start to write down the fractions listed on the board on one of the pieces of paper, but they don't know what to do next. The teacher reprimands them for not working. I sit down at a large desk with one of the groups.

Next to me is a boy resting his head on his arms, his head turned inward toward the desk so that his face does not show. Some other students have now done the same. Perhaps it is because they don't understand what is required of them and this is a way of 'disappearing' from the room and the context, unavailable for being reprimanded for not 'participating' and 'doing the work'.[38] Nothing is done about it. They are not attended to or even noticed. They become invisible bodies. The teacher continues her class as if this were a usual, 'natural' part of the fabric of the daily life of the classroom. And it is. I, myself, have grown accustomed to it in this context. I know that if a student had placed their head on a desk in my classroom when I was teaching, I would have stopped the lesson to attend to that student before all else… was the student well? Could I do anything for them? Would they like to go home? Here, it was commonplace, and the teacher ignored its occurrence.

There were many students that participated in this practice of withdrawal… it was a commonly accepted form of signification that permitted the student's right to invisibility. In an elitist school a few kilometers away, the context would not have legitimized this practice of corporeal withdrawal. Here, the students held their bodies erect, sat upright, they moved to raise their hands or stood up to participate in a classroom discussion or to walk to the board to make a contribution. They were vocal and their bodily well-being and energy was evident in their physical movements. In the "impoversished" school, the somatic performances were very different and governed by lethargy. The students contributed nothing to classroom debate. Debate was almost non-existent as it was not elicited by most teachers. They must listen to the teacher.

The invisible bodies were scattered about the room now, and the remaining bodies went on with their work as if 'the invisibles' did not exist. It was tacitly understood that these children might be faint with hunger and could not participate in learning, or that they may have AIDS and not be feeling well. This was an accepted norm. This was daily life, the way it was, the way it is.

The little boy next to me raises his head from the desk. I look into his eyes. There is 'something wrong'. I'm thinking, perhaps it is fetal alcohol syndrome or AIDS dementia? It is probably AIDS. The statistics are so high: a fifth to a quarter of the class on average, across the nation, is likely to have AIDS. In this "impoverished" context, it may well be more, in compensation for the elitist school down the road where the presence of childhood AIDS is highly unlikely. But these are invisible children and the world looks away.

I have heard of what happens to the brain when child dementia from AIDS sets in. This little boy has the confused, glazed look of someone 'who has it'. Are you all working, is the teacher's voice. The boy sits and looks at me. Will he get into trouble if he doesn't participate, I'm thinking, now that he has raised his head to look at me? What is he thinking when he looks at me? Does he want me to communicate with him? But the rules of the classroom in this context have defined the nature of what that conversation would have to look like.

I pick up one of the papers and write down the first fraction: 7 over 14. Do you want me to help you? He nods. In Afrikaans, I ask how many sevens are in fourteen. He doesn't know. I find it ironic. This was the example given by the headmaster to me to express his concern for the new 'progressive methods', where children didn't even know their seven times table and had to reach for a calculator. There are no calculators in this classroom. I haven't seen any calculators in the school, except on the secretary's desk and in the private possession of one or two teachers. And this was *not* 'progressive education'.

I begin to count out as I draw fourteen little beadlike circles and divide them into two equal groups of seven each. Perhaps the 'cultural beads' might have helped now as 'mathematical aids' to his learning! But what is the purpose? Where the 'relevance' here? Whose 'relevance' and 'relevance' for whom? Did he need to know this to be a contributory citizen to the socio-economic wellbeing of this nation, to participate in the new ideologies of state premised on global markets and capital, to be gainfully employed on arrival at manhood? There would be no manhood! There would not 'be' at all! What promise could be given to this child about his future? What forms of extrinsic motivation could be used to recruit him into learning about fractions, when he has only a fraction of his life left to lead. What utilitarian argument could be used now to explain why he needs to know this material? Where are the traditionalists and pedagogic constructivists now? Where the 'relevance' of any of this at all?

I think of the lesson I gave to my "Diversity" cohort student teachers in an elementary mathematics methods course at UBC, premised on Kieren Egan's work of teaching to imagination and emotion. It was an inversion of the now most commonly understood

premise of constructivist educational practice and thinking: *starting from what the student knows*. Instead, I premised the lesson on "what the student can imagine", in Egan's terms, as the principle for educational inquiry [39]. I called the lesson "starting from infinity", as a challenge to the developmental, building block approach of beginning with counting from 'one'.

While infusing the lesson with the artwork of Escher and his varied visual representations of infinity, we made möbius strips and cut them up along their lengths in different proportions, relishing the wonder and fascination of the unexpected – in the number of interlocking möbius strips and proportional lengths that were produced. I remember the 'ooh's' and 'aah's when my students made their discoveries, and have enjoyed the wonder and joy on their faces, as if for the first time, over the many years that I have done this classroom activity with students, children and adults alike.

I wish I could give this little boy the joy now [40]... even if he did not fully comprehend the mathematical principles relating to fractions underlying the activity. Nevertheless, I believe he may have a better chance at understanding through joy and engagement than the means of acquisition which has now been applied, which smacks of deprivation and poverty. Is this what is 'relevant' for him? That which reinforces and reproduces the mundane, the disenchanted, the 'lack'. Is the fascination which comes with the realization of the mysteriousness of mathematics by exposing students to 'concepts of infinity' in this way not relevant to him?

Is it relevant to students in the elitist school, who might have the luxury to explore these concepts, purportedly at another 'level'? Or is this unavailable or not relevant to them as well because of the urgency with which they need to gain access into a university program so that they do not fall into the category of 'wasted humanity', as has this little boy?

There would have been enough paper available for making möbius strips for each student in the room. It has little to do with material resources. It has everything to do with will, motivation and the resourcing (Adler, 2001) of knowledge – reformulating its internal power so that it might liberate.[41] As mentioned before, the only time I ever saw this teacher using the one photocopier in the school was to photocopy job descriptions from the provincial education gazette. She never photocopied notes, worksheets or activities for her class during this research period. All she wanted to do was to find a "better" job, away from this impoverished context with the 'difficulties' in the community and these 'difficult', impoverished, dirty children. She resented, she implied, being positioned as 'culturally the same' in the interests of being more socially 'relevant' to these children because she was the same 'race'. She and other teachers reminded me many times that they were not *from* this community, distancing themselves from their students circumstances of 'poverty' and the degradation associated with it.

The little boy looks at me again. I have stopped talking. Other children are looking at what I've drawn on the sheet as if I hold some magic to which they wish to be privy. The little boy nods as if to say he understands but I cannot claim it as any level of

'understanding' as he may merely be doing it to be polite. Perhaps it is more a nod of gratefulness because I am paying him some attention, or perhaps it is merely an ingrained habit, what he usually does to his teacher.

I accidentally brush his hand with my own as I reach to give him a pencil. It is warm in the room and the sun is shining brightly outside, but his hand is deathly cold. My heart aches but my body and mind are numb. I continue to try and teach the group of children the concept of equivalent fractions until the class ends, but it is mechanical and disenchanting... the form of the exposition has been pre-determined for me by the context. The tone has been set. I am in it. I cannot start again. I am in it, but I am alienated within it. I, myself, have become an invisible body. I am living out a teaching towards deathliness. There is no joy of learning here. There is no spiritual reward. This is not a transformative pedagogy of Hope. ....

Outside I hear the wind shift the leaves again. A breeze uneventfully stirs the blue-gum beyond the door of the classroom. I hear the creak of the boughs. A dog barks nearby. It has no meaning. It has nothing left to symbolize, except eternal lifelessness.... Perhaps the "starting from infinity" is not so much a philosophy of "starting from what the child can *imagine*" after all. This little boy will soon experience 'the finite' and beyond that 'the infinite'. Might it even be that I am entertaining an angel unaware, I wonder? Perhaps 'infinity' is more 'relevant' than I originally thought... Ironically, I think that, as a mathematical aid to understanding the experience of AIDS in the mathematics classroom, it outdoes the 'cultural beads' for 'relevance'. ...

Perhaps for a little boy with AIDS, "starting from infinity" is, in all 'relevance', "starting… and ending… with what the student *knows*"…

ENDNOTES

[1] In describing subjectivity as 'vibrating' through multiple 'realities', I am, in fact, describing the relationship between life and language in general and the production of meaning in particular. 'Vibrating' suggests that subjectivity is not static or ponderous, but pulsating, dynamic and constant only in inconstancy. What I am trying to describe through reflexive narrative is that research of a qualitative nature reflects or imitates life itself in that it is vibrant and palpable. The notion of 'vibrancy' is further expressed in the next sentence which speaks of the 'shaky soil of pedagogic analysis and the ontology of ways of knowing', carrying the added metaphor of nature and growth to support the connections with 'life'. Although it can be argued, with relative ease, from a critical ethnographic perspective that the work of Benjamin Whorf (1956) is problematic in its essentializing, or 'naturalizing' mode of description, it nevertheless makes some insightful contributions to understanding lesser known, non-Western, cultural practices and expressions. Whorf speaks of the "subjective realm" (in context of the Hopi culture), in *Language, Thought and Reality*, as "intensely real and *quivering* with life, power, and potency" (p. 60, emphasis inserted). His descriptor of 'quivering' is similar to what I mean by 'vibrating' here.

[2] Aporetic spaces: Here I personally mean spaces that are informed by and produce 'difficult knowledge'. These are spaces of self-doubt, difficulty and dilemma, but which force consideration of the elements of contexts and situations which give rise to them, thereby eventually yielding transformative possibilities and meaning through engagement and persistence.

[3] Dance is a valuable metaphor for me to use as it draws on my own personal experience as a dancer. From my perspective, the similarities between research and dance are vividly clear. In advocating for arts-based educational research, Eisner (1993) refers to the work of Suzanne Langer. He says: "In a work of art such as dance, she argued, actual physical realities such as place, gravity, and muscular control disappear as the viewer apprehends elements such as 'the moving forces of the dance, the apparent centers of power and their emanations, their conflicts and resolutions, lift and decline, their rhythmic life' (Langer, 1957, p. 6). These are the virtual realities of the 'semblance, the composed apparition' that is the dance." (p. 73). The dynamic images are not 'given' but are continually (re)created and (re)choreographed by the dancer in cooperation and collaboration with others within the same virtual space. Here, 'dancer' infers a role that acts as both performer and choreographer.

[4] Following on from the metaphor of 'dance', I am incorporating a notion of research as 'embodiment' here; that research is an embodied act and an embodied cultural product and performance. I believe that the metaphor of 'performance' is an appropriate theme to this research in expressing the multiple subjectivities, conflicting realities and context-specific paradoxes, which are the fibre of life itself. Bakhtin (1981) views language as a performance that produces multiple coexisting possibilities. All forms of discourse are, according to Bakhtin, "dialogical" and produce utterances that are "heteroglossic" in that they evoke multiple forms of signification. The performance of language implies individual interpretations shifting within cultural contexts that are continually in flux, and speaks to the complexity and generative nature of context in relation to discourse and subjectivity.

This notion of performance does not dichotomize artist and audience. It collapses the 'proscenium arch' notion of 'theatre' and presents more fluid spaces for performance that are virtual, and yet infused with the realities of the everyday. Garoian (1999) says: "Thus, cultural performance is not limited to an essentialized program of aesthetics. Part of a complex cultural system, it represents the 'acting out' of spectator's/ student's subjectivity, a metaphor that distinguishes theatre from the 'social dramas' (Turner, 1986) found in everyday life, the cultural and prosaic actions, rituals, and events that affect responses in our bodies and our understanding of reality on a daily basis. By calling attention to and acting out the effects of culture on the self through performance, the (artist's) body is transformed from being the resigned object of culture to a reflexive subject, from mere consumer to that of a critical producer." (p. 54) This does not only apply to the student/ spectator relationship, but to the researcher/ participant one as well. In this sense, the researcher becomes an artist in performance, whilst participating in that which she observes, merging the roles of audience and performer, 'subject' and 'object'.

[5] This metaphorically marks the consonant dilemma of a country that has undergone tumultuous and far-reaching change but which is still dogged, to quite some degree and in certain sectors, by the legacy of apartheid. The debates, problems and issues in Education in South Africa today, relate directly or indirectly to the existence of non-synchronicity of change phases and metachronisms in the process of social transformation. From my vantage point, post-apartheid South Africa reflects a chiaroscuro of illuminating/illuminated images of progressiveness, dynamicism, innovation, creativity, democratization, hope and light, contrasted and at the same time infused with non-reflective places of regressiveness, stubborn intransigence, inertia, oppressiveness, demoralizing poverty and anomie, desperateness and lightlessness. *

* (I use the term 'lightlessness' here rather than 'darkness', which evokes colonizing images of an evil and 'dark continent', as depicted in Joseph Conrad's *Heart of Darkness*. 'Lightlessness', instead, suggests places to which light has left and may come again, or has still to come, and so illuminates possibilities of dialogue towards social change, rather than extinguishing the potential for these places to ignite political, social and spiritual incandescence. These ideas are reflected in pedagogies of hope rather than ones of fear and despair, and are evidenced through metaphors of imminent light and dawn in the final paragraph of Alan Paton's *Cry the Beloved Country*, written in 1948 of the apartheid context in South Africa. These images coalesce around the main theme of the book, which is as Alan Paton puts it: "a story of comfort in desolation". He concludes his tale:

> Yes, it is the dawn that has come. The titihoya wakes from sleep, and goes about its work of forlorn crying. The sun tips with light the mountains of Angeli and East Griqualand. The great valley of the Umzimkulu is still in darkness, but the light will come there. Ndotsheni is still in darkness, but the light will come there also. For it is the dawn that has come, as it has come for a thousand centuries, never failing. But when that dawn will come, of our emancipation, from the fear of bondage and the bondage of fear, why, that is a secret.)

Further, to return to the original paradox in the description of 'The Great Hall', this metaphor speaks to the issue of the colonizer/colonized dichotomy as being ever present and unresolvable, but needing constant attention in the decolonization process. This is also in the sense of our need for a collective awareness of the ways in which neo-colonialism may continue to find root, and vie for power, within our discourses of reconciliation and transformation.

In this sense, on another level, it also semiotically locates the understanding that social change in South Africa which incorporates a celebration of local or African indigenous knowledges, an expansion of Africanisation and a greater Afri-centric focus, will likely be in response, reaction, or in relation to, Euro-centricism and the hegemony of global/ Western discourses for a long time to come, (if not forever). From a position of activism, it is necessary for us to acknowledge that within contestation, transformative / counter-hegemonic / counter-narrative discourses inhere the master narratives as referential points of power, so that while a new "center" is being born, the centre of this creation is motivated by, and *lies at the heart* (in all senses of the word) of its relativity from the centre of hegemony.

[6] I assert that mathematics education, its discourse and practice, *is*, by its nature, intrinsically and extrinsically political. The scientistic discourse that reifies it as apolitical or 'neutral' is itself

ideologically premised and is testimony to the existence of the antithesis. This is an *invisible* pedagogy however. The act of openly drawing a connection between mathematics education and 'the political' (as I *myself* have done here, albeit differently premised to the way in which Rena has done) can be viewed as a *visible* pedagogy, where the referential relations assisting in the construction of such a 'political' discourse on mathematics education are not hidden, (see Bernstein (2000), for his related interpretation of *visible* and *invisible* pedagogies or practices.)

[7] The continuum of 'redress, access, success', infers a linear process model where redress precedes access which then results in success. However, social change is messy and complicated and 'success' may occur in small ways in local contexts, or 'access' may lead to 'redress' etc. in certain locations under conditions conducive to this. This highlights an important issue that needs addressing in contexts of "poverty", where "poverty education" continues to be rooted in *conditions of poverty*. What then needs to be addressed first? However, this question educes the agency in the operations of a 'cause-effect' model. More productively, we need, instead, to ask how they work together *concomitantly*. Perhaps, what requires consideration, in terms of "improvements" to mathematics education (and education in general) in these contexts, is how one can turn around, what is often referred to in South Africa in terms of post-liberation consciousnesses, a "mentality of entitlement", political inertia and bureaucratic attitudes of '*waiting* for resources', towards an ethos and pedagogy of "re-sourcing" practices and self-empowerment. (See Adler's (2001) work on resourcing teacher practices. Adler draws attention to international reports that indicate that even in schooling contexts where the availability of material resources is not limited, teachers complain about lack of resources, pointing instead to the need for a resourcing of practices. This mindset is then not only endemic to situations of poverty where the lack of material resources is obvious and directly limits the potential for learning to take place (Adler notes that 23% of schools in South Africa are without running water or toilet facilities), but transcends contexts where notions of entitlement are present fed by consumptive progressive mathematics education trends in practices that demand "more" resources. It is a mode of argumentation which situates educational challenges within a 'deficit' mode, giving credence to conservative and neo-liberal agendas that have mapped out legitimate spaces of social structure in accordance with the correspondence principles of 'material access' implies 'success', and 'lack' implies 'failure'. Consequently, assumptions about the linear relationship between increased access to or availability of material resources and "better" practices remains largely unproblematized. As an extension of this, Adler advances: "There is a

tension between an uncritical (re)distribution of resources to meet equity goals and how such resources are and can be used to support mathematical purposes across contexts" (p. 187).

[8] The image of 'dog' is a powerful metaphor in South African cultural contexts and the various popular phrases that include this metaphor give life to its multiple and ambiguous meanings in context. Just as I have expressed the experiences of disempowered communities as being 'dogged' by injustices, so in contrast, a popular expression, ubiquitous in conservative (usually 'conservative white') society, is that the country, in its post-liberation state, is 'going to the dogs'. The metaphor of 'dog' in South African society, most often seems to infer degradation. The well-known South African author, Breyten Breytenbach, exploited this interpretation in his novel *Dog Heart*, (published in 1999). On the dust jacket of South African author, J.M. Coetzee's Nobel Prize winning novel "disgrace", (published in 1999), there is a picture of a mangy and emaciated dog, in semiotic affirmation of the title. On hearing of his daughter's pregnancy after her being gang raped, the father in the novel remarks to himself: "What kind of child can seed like that give life to, seed driven into the woman not in love but in hatred, mixed chaotically, meant to soil her, to mark her, like a dog's urine?"

Anjie Krog, also a well-known South African writer, poet and journalist, uses this image of 'dog' effectively to portray a brutal violation of human rights in *Country of my Skull: Guilt, Sorrow, and the limits of forgiveness in the New South Africa* (published in 2000). She describes how a shepherd by the name of Lekotse tells the story, at a Truth and Reconciliation Commission (TRC) hearing, of how the security police broke into his home at night with dogs, wrenching open closets, throwing his family's personal belongings on the floor and chasing his family members out into the cold. Lekotse uses the comparative analogy of a jackal and dog to explain his feelings of the experience. He says that even a jackal when he gets in among the sheep does not behave like this. Lekotse attributes the vicious behaviour of the security police to his own experiences of a dog, comparing it with the more 'purposeful' traits of a jackal. Lekotse describes how a jackal attacks silently and kills cleanly, devouring the various parts of a lamb, but, from his observations, a dog is different. For Lekotse, "a dog in among the sheep, biting to left and right, causes a tremendous cacophony of barking and bleating. And if a dog kills, it won't eat" (p. 287). Therefore, the innuendo associated with these characteristics of a "dog" and the associated violence, disgrace and degradation inferred, provides the expression to "dog the daily lives of so many of our people in South Africa" with deeper implied meaning.

[9] I am aware that this practice might also not have 'legitimate spaces' of possibility in reality in context of the South African school referred to, and that this group member might be 'fabricating' it as a potential legitimate, virtual practice through the force of circumstance in having to contrive a project idea in the workshop context, or that he might not be aware of the potential spaces of possibility or legitimacy at that school. This is not the analytical concern. Rather, what I am concerned with is *what* the contextual elements are that are being recruited as resources in establishing an *'ideal' practice* and the *'ideal' student* in association with that practice. Context too becomes an 'idealized reality', albeit that the idealized reality is assumed to be one of poverty, a semiotic indicator, in this workshop context, of a particular understanding of the broader context of South African schooling in general.

Further, Rena's idea of *contextualizing* the practices of mathematics within the so-called 'lived experiences' of the students and connecting this conviction with activist discourse on equity and 'lack of resources', ironically serves to homogenize those 'lived experiences' within the confines of 'poverty' and 'lack', which becomes read as 'the local', as in 'local conditions'. It also delimits the range of subject positions available to students engaged in this practice, holding them to putative 'conditions of poverty'. The 'traffic flow' problem which transcends contexts of poverty, (as expressed in the Canadian school comparison), is then a *decontextualisation* of Rena's constructed ideal, rather than a purported *contextualizing* practice. The motivating tenets of Rena's 'relevance' practice asserts a virtual set of homogenous conditions which controls the internal messages of the practice, locking them within discursive boundaries of poverty and fossilizing these conditions as ever-present, ever-real and ever-'relevant'.

[10] This speaks to the nature of journey, as I have used it metaphorically to describe my research process. This process involves an account of ever-changing distal and proximal relationships to research objects over time, as inhering in a view of research as a process of journeying and storying. It is like taking a moment to pause and stand in *a space at the side of the road* and assess the path one has taken and those that travel on it. I am borrowing this metaphor of 'a space at the side of the road', from Stewart (1996) who uses it as a theme to view the process of research in terms of a complicatedness inferred through travel and story. In fact, my constant peregrination as I 'work through' dilemmas and grapple with the paradoxes, positions and perspectives of research, is probably best described in Stewart's remark on the difficulties of cultural re-presentation: "Whatever its plans and ideals, it finds itself caught in something like a

space on the side of the road, scurrying back and forth looking at one moment for illumination and at the next for cover." (p. 40).

[11] In dramatic irony, this is intended to act as a pedagogy informed by PDL, *principles of democratic learning*, (See Hyslop-Margison and Graham (2001) for their use of and definition of PDL). The intention is clearly to 'empower students'. One of the major objectives of the project work is that the students achieve *autonomy* through choosing the projects themselves for their communities. Here the need for the projects to conform to the requirements of the mathematics curriculum, monitored and policed by the teacher, mitigates against this objective and, it can be argued, reinforces the students' position of 'disempowerment' rather than liberates them from the tyrannical constraints of the curriculum, and poverty education as its adjunct. It realigns pedagogic outcomes with the acceptance of the dictates of a lack-lustre curriculum, recontextualizing "democratic" principles into a "return-to-poverty" practice. This is an autocratic, yet beguiling, discourse on school mathematics that constrains and disempowers while 'in performance' of a pedagogy of social justice and democracy.

[12] In noting the use of the imperative here, we could view articulation in terms of a Marxian view of the division of labour, where commodity exchange takes place. The 'solution to a community problem' has socio-cultural, and political capital (most especially in the contemporary South African context), for which the 'authority of mathematical voice' can be exchanged. The non-negotiable of 'mathematics' rather than 'social studies' is not only established because *the context necessitates* that mathematics be used (as a consequence of the workshop being embedded in a 'mathematics education conference' context, as opposed to another conference coalescing around other discipline issues), but because, in the social division of labour of discourses, mathematics has more *exchange value* given its authority/dominance of voice in the hierarchy of discourses. The 'exchange relations' metaphor, one which Dowling (2001) would refer to in its pedagogic implementation as "market text", is *one* such interpretation of the imperative implied in the use of "but they *must*" here.

[13] Notice how this group member's language demarcates mathematics from non-mathematical disciplines, premised on the pre-existing demarcation of the school curriculum along the lines of these disciplines, recruiting, and at the same time, fuelling the power of mathematics as supreme in the "social division of labour of discourses" (Bernstein, 2000) within the broader social domain, and setting it against other considered 'non-scientific' disciplines. Here mathematics is

allowed to speak for other disciplines, knowledge bases, ideologies and social activities, in so far as it mythologizes them as 'mathematical activities'. However, in this context, these social activities are granted no legitimacy in themselves as activities, outside of their reference to mathematical ones. The binaries which Mathematics constructs in Western discourse abounds.

This is analogous to Thomas Gieryn's (1983) notion of "boundary-work", the ideological use of language by scientists to demarcate their work out as 'science' by comparison with 'other', considered 'non-scientific' work. This boundary-work has not merely to do with analytical categories, but serves as an investment in the material opportunities and professional advantages provided to scientists only, as ideologically premised and maintained in global discourses (and even here there are sub-categories and demarcations related to 'credibility' and 'credentials', centralizing 'scientific' power and privileging Western, masculine, 'First World' issues and contributions). By extrapolation, we can see this boundary-work as resting on notions of science, and mathematics in particular as 'queen of the sciences', that hold it up as supremely important and as possessing cultural, social and symbolic capital beyond its applications.

It is also interesting to note that this group member would not accept the limitations of mathematics in facilitating a transformative pedagogy, and resorts to an *impositional pedagogy* to achieve this... In other words, you simply '*must*' use mathematics in the projects, even if it has no obvious use-value, as the projects are *about* mathematics! This is a fascinating interpretation of 'relevance', [what Dowling (2001) would refer to as "mythically localized 'relevance' "] and the democratic education ideals that support a discourse on 'relevance'! Here 'relevance' is imposed, and does not arise 'naturally' from its context, a contradiction in terms (assuming 'relevance' *can*, in fact, arise *naturally* from context, unless it is another variation of the social construction of 'truth' and 'reality', or the discursive 'place' where socially constructed 'needs' of students are purportedly met). Here, mathematics *dominance* affords it the 'right' to *dominating* practices. This is analogous to what Gouldner refers to as the "egoism, barbarism and *limits* of science" (in Gieryn, 1983, p. 783).

[14] In the Althusserian sense, a pedagogy of liberation would mean that: "to make the thought possible, one occupies the place of the impossible" (1990, p. 209). For Derrida (1978), "the impossible" is the creative space and catalyst of invention, where the unthought might be thought. Foucault's (1980) premise in considering knowledge as power, posits that in working against oppression, we need to ask how we might inhabit the moments outside of our historical

consciousnesses, in places which are historically "impossible" to be. Dowling (1995) grasps at the "impossible" or "unthinkable" by alluding to the 'discursive gap', which arises through the incommensurability of language and thought. He says: "Uncertainty does not arise out of the gap between a yet-to-be-grasped truth and the misrepresentation of that truth within a given activity. Rather, the unthinkable may be construed as the inevitable incompleteness of articulation and the ultimate ineffableness of the non-discursive with respect to the discursive" (p. 5). Bernstein (2000) speaks of the construction of success in school contexts in terms of the classification of knowledge ('strong' or 'weak' boundaries), access to principles of generalization, and the 'permeability' of knowledge. He says:

> The successful have access to the general principle, and some of these – a small number – those who are going to produce the discourse, will become aware that the mystery of discourse is not order, but disorder, incoherence, the possibility of the unthinkable. (1993, p. 122)

Nevertheless, he warns us that: "the long socialization into the pedagogic code can remove the danger of the unthinkable and of alternative realities" (ibid.).

My personal position follows the arguments of these thinkers in that I believe that psychological, physical and spiritual liberation is achieved via a pedagogy of practice which seeks to attain access to the 'beyondness' of common thought, that generates possibilities other than itself, and casts a virtual, creative and generative space for unthought and for the possibility of the impossible. Through my own life experiences, I am aware that the potential to break the boundaries of our historical knowledge structures and re-cycled, language-bound, and multi-authored thoughts depends entirely on the inventive and productive possibilities of context, the personal motivations within these, on the generative moments in the interstices between language and thought, and on the legitimation of 'unspaces' between spaces created by principles of power. To live the possibility of thinking the unthinkable and making possible the impossible is, for me, about journeying towards *becoming empowered!* It is on this fundamental philosophy, personal belief and moral conviction that my entire thesis is premised.

[15] One of Lather's (1994) requisites of a counter-hegemonic methodology, which ruptures the masculine authority of traditional social science, is an approach that "creates a questioning text that is bounded and unbounded, closed and open" (p. 52). Through such an approach, 'voluptuous validity' may be achieved. I have purposefully used a questioning text here, with reams of continuous questions, and in other places of my narratives, to desist from the 'all-knowing' and

'answering tone' that is the assumed right of a privileged position as researcher. However, I use poetic license in that these questions are, for the most part, rhetorical. They neither need nor command *answers*, only *responses*. Consequently, the range of possible responses is what evokes the questions themselves.

By analogy, my research intention is not to find answers to difficult questions. I am not trying to find *solutions* as much as I am trying, instead, to journey towards *resolutions*.

[16] I am not advocating that this approach is 'better', quite the contrary. I am noticing the set of difficulties with each approach, especially as they locate different ideological codes and emphases. This particular approach I recognize as having credibility within a neo-conservative context painted over with a token veneer of progressivism, as "packaging". Underneath this packaging are, problematically, some very traditional teaching practices supported by Capitalist economics model utilitarianism and validated by a 'standards' framework.

[17] Lather (1994) refers to the textual strategies that create oppositions to power and authority, and which achieve 'validity' through a generative, counter-hegemonic methodology, as: transgressive validity. In her checklist of the forms of validity produced by such texts, she refers to 'voluptuous validity' (previously mentioned). A further tenet of voluptuous validity is that it "brings ethics and epistemology together" (p. 52). According to this definition, it is therefore a *voluptuous validity* in which I further engage, perhaps even with some risqué abandon...

[18] As Charles Garoian (1999) speaks of Bakhtin's (1981) notion of "heteroglossia" (p. 272), where individual utterances and their cultural and contextual interpretations are constantly in flux, he also uses the notion of "node" to explain the function of an utterance in relation to a "non-matrixed system of discourse" (Garoian, 1999, p. 55). My use of "node" here in relation to the development of my narrative would have reciprocity with Garoian's concept of "node" as he relates it to the Bakhtinian use of speech genres and utterances. Garioan further explores analogies to these 'nodes' within 'non-matrixed discourse' by noting their similarity "to the reticular structures of Ivan Illich's 'learning webs' (1971, p. 76), Nicholas Paley's rhizomatic system of learning (1995, pp. 8-9), and Richard Schechner's 'performance web' (1988, pp. xii-xiii)", (in Garioan, ibid.), which are consistent with my use of the term 'nodes' as well.

[19] Viewing this textual event as *artistic performance* helps us notice how it vividly acts out its own internal contradiction. On one level, the silhouettes of Kabelo and my daughter create

cameos-in-relief of their ethnicity, making the 'negative spaces', in the artist's parlance, of the illuminated window as background become foregrounded. Here context, represented by the window, which frames the action, is therefore dominant over ethnicity. The visible sense of personal connection between Kabelo and my daughter, and my daughter's innocence of her role in this sociological performance, backgrounds the principles of power associated with ethnic difference within this social text. However, the focus changes as it does with stage direction changes in illumination or 'stage lighting'. The act of Kabelo's requesting to borrow my daughter's Alice band, places the action in the foreground, re-evoking ethnicity as a historical component of power in the process. It is therefore ironic that Kabelo requests the Alice band from my daughter, who does not visibly represent Kabelo's 'culture', so that 'permission' for 'embracing of culture' and justification of it, symbolically resides outside of Kabelo's own cultural context, represented by a commodified/ commercialized object.

In terms of performance theory, the reactions of the body provide non-discursive, somatic, interpretations and expressions of cultural experience. These enactments, whether intentional or not, are symbolic ways of viewing the interpretive basis of the actions. Garoian (1999) discusses Bernard J. Hibbitt's notion of "performatizing" with respect to the practices of Hibbitt's own discipline of law, and relates it to pedagogy as a whole. Garoian notes that: "Performance invokes academic and aestheticized culture for the purpose of making it 'accessible to human understanding' within the context of contemporary culture. In this way, performance 'transforms the ordinary into the extraordinary, the self into the other, and the transient into the timeless" (pp. 56-57), although I would argue that the transition from the 'transient' to the 'timeless' constantly mutates with multiple interpretations.

[20] There are also playful aspects of performance, and the interpretive relationship between audience and characters in performance heightens its ludic, parodic and ironic qualities. The disjuncture between characters' awareness of their actions and the audience's awareness/ perception of the meaning of these actions is perfomance's contribution to the 'imaginary real', playing tricks with the mind so that the 'real' and the 'imaginary' are often, intentionally blurred. This is, perhaps, how I felt about the vignette, and I wondered how closely it approximated what could be considered 'real' and how much was 'created' through my personal perception of the events by my placing it in terms of performance.

[21] This is a dramatic irony, and lies in the ambiguity of language. It is the old Jacobean theme of 'appearance' versus 'reality', again. While the term 'counted' recruits emancipatory and

celebratory discourse, it signifies the precise opposite. Later the engagement with mathematics becomes reduced to basic principles of arithmetic... mere 'counting', hardly emancipatory in effect! Consequently, the latter interpretation is reinforced in superseding the former.

[22] Dylan William (1997) makes a very powerful point in his article, *Relevance as MacGuffin in Mathematics Education*, highlighting the absurdity of using certain contrived 'real life' metaphors to explicate the mathematics - metaphors which have little to do with the mathematics itself. Williams, describes Hitchcock's use of MacGuffins to facilitate the continuation of the plot, but which have no relevance to the plot itself, merely holding the reader in suspense. Williams shows how in many word problems, or in mathematical expositions in the classroom, metaphors, quite absurd to the mathematical context, are used to create a sense of everydayness or relevance to 'real' life of the mathematics being explicated. In this way, what we refer to as 'realistic mathematics', often has very little to do with 'real' life and is merely a MacGuffin so as to facilitate (and often it hinders or confuses!) the acquisition of mathematical concepts. In the same way, 'culturally appropriate mathematics' and its referents may act as MacGuffins, but do little to enhance acquisition of the mathematics or facilitate transfer.

[23] It is interesting that learning outcomes are ever present as the main objective for the learning. In other words, the argument follows the path of asking how the problem being discussed conforms to these objectives, so that closure has already occurred before any potential dilemmatic engagement with the problem. Problem solving *must* have an answer! Mathematical learning *must* be towards stated curriculum objectives, so that the curriculum not only prescribes, but also delimits and inhibits. Gerofsky (1996) speaks of early closure in problem solving in terms of an already deadness. She uses Early's (1992) work to speak of the implications for mathematical problem solving in terms of "death by solution". In advocating for "dwelling with ambiguity" she avers:

> School math classes work at the level of 'taking problems literally', fixing meanings and binding them in time, specifically to avoid the recurrence of the Real, the ambiguous, the messy space of living. The desire to solve or dissolve the problem without allowing a space for play involves shutting down the space to think mathematically, to struggle with the ambiguities of the Real, to have patience and courage, and to know as a mathematician that no problem is ever more than provisionally solved. (p. 3)

For Gerofsky, to dwell in ambiguity is to be alive, whereas early closure is a death. It could be argued then that a desire for early closure is synonymous with a desire for nirvana. How does this then relate to Freire's (1999) notion of an oppressive pedagogy as necrophilic?

[24] The mythologizing gaze of mathematics, in certain situations, often still prioritizes the esoteric domain of the discourse, such as in certain school-based examples that recontextualize shopping practices (see Dowling, 1992, 1993, 1995, 1998), where the domestic or 'real life' context is incidental to the mathematics. However, in *this* context, the mathematics is not prioritized and is subordinated by the 'situated' context evoked. Here the political is given immediate and uncontested priority. Hence, the mathematics is incidental.

In reference to the incorporation of 'everyday' practices in the mathematics classroom in order to validate 'relevance' in this context and consequently establish an equivalence between the 'everyday' and school mathematics (as manifested in the National Qualifications Framework document for South Africa), Ensor (1997) notes:

> School mathematics thus elaborates a projective and introjective gaze upon the world – a projective gaze which looks upon the world and describes it in mathematical terms, and an introjective gaze which recruits exemplars from the world and brings them into the mathematics classroom. Everyday activities may recontextualise aspects of school mathematics as a resource in their elaboration, but mathematics becomes subordinated to the contingencies of the context and the specific subjectivities marked out. (p. 10)

Here, Ensor speaks to the distortion of mathematical elaboration, so that generalizing principles become inhibited by the public domain recontextualising of mathematical principles. Ironically, the usefulness of the mathematics in any other setting other than a school mathematics context (and a limited one at that) is dubious, to say the least, far less politically empowering. But there is a further concern. Unfortunately, however, Ensor's words highlight another distortion of the interpretation of the 'relevance' rhetoric in the South African educational policy arena in relation to its implementation in this 'critical mathematics' context. The cultural beads represent not only 'cultural relevance', but 'relevance of the everyday'. The beads take the place of the 'everyday lived realities of the lives of students' and in so doing, create a further distortion in the transfer between an exotic concept of 'culture' and 'the everyday'. Consequently, the mythologizing gaze of mathematics and the myth of relevance interact to create a double distortion. No wonder the mathematics that comes out of this is the most 'algorithmic', and trivial. The multiple action of the mythical recontextualising has flattened it completely!!

[25] McLaren, Leonardo and Allen (2000) speak about the colonization of meaning in terms of 'territorialism' and its spatial manifestation, the 'governmentality of whiteness', drawing on Michel Foucault's use of the term 'governmentality' and how it relates to discourse and power.

They say: "The social spaces of whiteness are those of power, territories that confer privilege and domination for whites. As such, the actual social and spatial rituals that form white racial identity in global capitalism might best be revealed through the politically and spatially focused lens of human territoriality." In this sense they define territoriality as "essential to understanding the construction of any type of domination at the level of human interactions since it is the spatial practice of attempting to control the materials and discourses of others." Consequently, governmentality is "a territorial strategy for the control and disciplining of bodies and thoughts on a microgeographical scale", so as to achieve social compliance and the surrendering of meanings to the interests of whiteness (pp. 110-111).

[26] It can be argued that rather than achieving relevance and grasping the lived realities of these 'cultural practices', the mathematising of 'culture', in fact "constitutes a mythical plane which occupies a space outside of both mathematics and the quotidian. The students are objectified by the mathematical gaze and recontextualised as homunculi which inhabit not the everyday world, but the mythical plane" (Dowling, 1995, p. 11).

[27] To add to the debate on relevance, Sethole (2004) draws attention to practices in the mathematics classroom that refer more to 'dead mock reality' than 'meaningful (learning) contexts'. He describes some problems and disjunctures in a situation where school mathematics is recontextualized from everyday practices into the classroom. Sethole elaborates on a study where two mathematics teachers attempt to negotiate the emphases of mathematics and the everyday in incorporating the everyday into school mathematics, as the new South African curriculum requires. Their attempts at accommodation of these discourses highlight the many practical challenges in attempting to satisfy the objectives of the curriculum. The mythologizing of mathematics by attempting to incorporate the 'non-mathematical' into the 'mathematical', he avers, potentially acts as an unhelpful distraction to the learning of mathematical concepts so that access to these concepts is denied or inhibited. He concludes: "the task of making mathematics relevant is a challenging one. The expectation that the incorporation of the everyday into mathematics will occur unproblematically seems simplistic" (p. 24).

[28] Dowling (1995) in critiquing the professed emancipatory pedagogy proposed by Paulus Gerdes, in his use of ethnomathematics and mathematical anthropology, and the mythologizing gaze of mathematics to achieve this, says:

> The gaze can recognize only exotic forms of itself. The European constructs the other as the public domain of its own expression. This public domain is constructed as a mythical plane on which African homunculi participate in their everyday practices according to principles which European culture can divine, even though they may go unrecognized by the participants themselves. (p. 7)

The difference between Dowling's description of Gerdes's anthropology and the existing context is that it is not, literally, a 'European' who constructs 'an other'... would it be unfair, then, to say that it is a form of self-othering, achieved through taking on the guise of a "European"? Also, unlike Gerdes's Africans who are purportedly 'doing' mathematics in their weaving, even though they are apparently unaware of it, here no claim is being made to the beadwork as an act of 'doing mathematics'. The beadwork is already a dead form, merely exploited as an essentially arbitrary object, through its claim to being a cultural product, for the purposes of mathematical imposition. [See Gerdes (1985, 1986, 1988a, 1988b)].

[29] As Bernstein (1973) says of "consensual rituals": They "recreate the past in the present and project it into the future" In this way, "they facilitate appropriate sentiments towards the dominant value system of the wider society" (p. 55).

[30] The idea of 'doing' mathematics is a whole area of investigation in itself. It could be interpreted as referring to the discourse on kinesthetic approaches to learning mathematics through 'doing' or inquiry-based approaches, where concept development is often encouraged through the use of tools (or manipulatives) which assist in concretization of concepts (see the work of Paul Cobb, as one example). The research orientations associated with these approaches tend to have a cognition-based focus to learning, often include Piagetian developmental frameworks, and have a constructivist premise. Most often, these approaches tend to advocate a move from the informal, local and context-specific towards the formal, abstract or generalizing principles of mathematics. This could be described otherwise as the student's being *apprenticed* into mathematical knowledge via the public domain.

This would be consistent with the work of Lave, Smith and Butler (1989) where the teaching of mathematics towards non-school contexts, rather than a move from the concrete to the abstract, is argued to be theoretically and empirically unsound (as well as morally dubious given its utilitarian motivation), but that the enterprise of teaching should be focused on apprenticing students into mathematics, into the practice of mathematicians.

Ensor (1997) argues that: "To ensure apprenticeship into mathematics, the esoteric domain of school mathematics, must structure a public domain, more loosely classified in terms of content and expression, which it does by casting a recontextualising gaze upon other practices such as shopping, domestic arrangements, leisure sports and so forth. These become structured by the principles and grammar of school mathematics itself" (p. 10). However, at some point, the context-specificity needs to be subordinated to allow for the emerging elaboration of the esoteric domain of mathematics. While it is most useful and more accessible to students in general for the mathematics to arise from context, a movement away, at some stage, from context-specificity is required towards the generalizing principles of mathematics for its full acquisition (and, I would argue, for mathematical empowerment to be possible). Ensor quotes David Pimm (1990) in arguing that to learn mathematics requires suppression of the metaphorical and of context. He avers that: "in order to function as a mathematician, it is important to be able to suppress the external (metaphoric) content of whatever is being attended to, in order to automate symbolic functioning fluently', (p. 200, in Ensor, 1997, p. 11). The crucial problem which arises is not in the mathematics learned or understood as it is manifest in context, but in its *transfer* to other contexts, or the formal context of the classroom. The work of Lave (1988) and Lave, Smith and Butler (1989) are testimony to this dilemma. More problematically, the problem arises when the mathematics becomes a decontextualized pedagogy, which is then reconfigured within the mathematics classroom to "fit" the curriculum, so that 'relevance' to context is, in fact, *lost* rather than gained.

Other interpretations of what it means 'to do' mathematics, also abound. Unfortunately, most often, what is being implied when people refer to 'doing' mathematics is the notion of mathematics as a set of skills and procedures, rather than a pedagogy of engagement with mathematical concepts at large. Otherwise, 'doing' mathematics may also elicit certain stereotypes of mathematics and mathematicians, which lock 'others' (such as artists for example) out of the 'doing', i.e. *mathematicians do* mathematics, not artists or others.

Consequently, this raises further questions about what it means 'to do' mathematics, what it means to do mathematics *for whom* and how this is evaluated. Both Lave and Pimm have spoken about doing mathematics 'like a mathematician'. What does it have to look like, then, to be able to claim that one can 'do' mathematics? Does one always have to look like a mathematician, behave as such to make that claim? What, then, does 'doing it like a mathematician' mean? Albert Einstein required a friend of his, a school mathematics teacher, to help him find the

equation $e=mc^2$, perhaps the most famous mathematical equation of all time. He understood the scientific concepts behind the equation but could not find the exact mathematical equation itself. Was Einstein *doing* mathematics, *behaving* as a mathematician, or not? Could he 'do' mathematics? Who decides?

Further, as previously inferred, *doing* mathematics and *understanding* mathematics could very well be two different things with their own foci and ideological emphases? And there could be other ways of being in relationship with mathematics outside of this dualism, such as who *appreciates* or *enjoys* mathematics, what kind of mathematics, school mathematics or 'other' mathematics, (ethnomathematics included), or perhaps even mathematics attained /appreciated through self-discovery? Ian Stewart (2001) wrote a fascinating book called: "What shape is a snowflake?" He begins with this question, and through reticular pathways or chreods ("developmental pathways in space-time", or canalized "developmental reactions" coined by Waddington (1956, p. 412)), he explores many theories, concepts and fascinating phenomena in nature to try and explain the mathematics of the shape of a snowflake. After venturing into chaos theory, the shape of the universe, the artwork of Leonardo da Vinci, the beehive, stripes on a zebra, conic sections in shells, fractal geometry and Fibonacci in nature, amongst other topics, all without a single mathematical equation, he finally produces "the answer". After philosophizing about the experience and its implications to our knowledge and appreciation of the "frozen reality" of the snowflake, and in a dramatic defiance of the traditional mathematics teacher's/researcher's absolutist notion of mathematics and obsession with "the answer", he ends: "What shape is a snowflake? Snowflake-shaped" (p. 214).

Not having a 'precise' mathematical-looking answer to the originally posed question, by no means detracts from the calibre of the mathematics in the book. In fact, it validates a greater 'truth', that it requires a deeper investigation, experience, understanding and expression of mathematics to find 'the answer', which is that there is no right answer at all! Accessible to a broad audience, it can easily be argued that any student who reads this book would have a much greater/ richer understanding/ appreciation *as well as* 'content' knowledge of mathematics, as well as its intrinsic falliblelism, despite the book's apparent lack of identifiable mathematical 'symbolic content', than the entire K-12 school curriculum of any country. In relation to the previously mentioned tensions between school mathematics and democracy, *this point cannot but make one think*!

[31] In a similar vein, according to Morson (1986), Bakhtin's most radical contribution to his theory of language is his rethinking of traditional opposites and linguistically constructed dichotomies of "individual to society, of self to other, of the specific utterance to the totality of language, and of particular actions to the world of norms and conventions " (p. xi). He advocates for dissolving these linguistically constructed dichotomies as a way out of "the endless oscillations between dead abstractions." The problem-Solution continuum is another one of these traditional dichotomies, which is sustained through positivist paradigm creation within academia and upheld by the discourse and authority of traditional/ 'classical mechanical' Science. Even as I say this, I am aware that one of the exogenous 'expectations' of my thesis (for the spoken-of purposes of academic criteria such as 'rigour', 'credibility' or 'validity'), imposed/defined by the traditional academic research field within the Social Sciences, is that I attempt, at least, to provide some answers, pose a solution, supply a set of possible prescriptions for 'improvements' to practices/policies, as a consequence of my research results. As I argue that all options are contingent, paradoxical, multi-faceted, complex, controversial, politically problematic, ethically fraught and dilemmatic, so I attempt to move beyond the problem-Solution paradigm, towards a dynamically informed, narrative-based, personal *resolution*, the commitment to such a position of which needs to be assessed as a moral, reflexive, contextual contribution, for each *individualsociety* or *selfother* to make choice(s) on accordingly.

[32] There has been some criticism from certain quarters that despite the very democratic and progressive ideals of the ANC's document (African National Congress, A Policy for Education and Training, (Johannesburg: ANC, 1994)), the voice of this document occasionally takes an impositional tone, albeit unintentionally. This is, perhaps, an example of irreconcilability of 'the means' and 'the ends', at a policy level – the idealism of social justice principles in diverse contexts versus their universalized implementation across all contexts. Most importantly, this authoritarianism is particularly noticeable with respect to the issue of 'relevance' in mathematics and science education, and explicitly connects educational objectives to the world of work... a functionalist, technicist perspective, carrying a strong utilitarian voice in the name of democracy. An example of this is an entry in the document which says:

> ... science and mathematics education and training, both school-based and work-based, must be transformed from a focus on abstract theories and principles to a focus on the concrete application of theory to practice. It must ensure that students and workers engage with technology through linking the teaching of science and mathematics to the life experiences of the individual and the community.

Dowling (1995) says of this entry and others:

> The document repeatedly announces a commitment to the integration of education and training, of the academic and the vocational. The existing curricular provision is claimed to lack relevance and science and mathematics education is too abstract and theoretical... (...)...It would be disingenuous to claim that the ANC document is deliberately dogmatic and authoritarian. This is far from being the case. Nevertheless, and its status as a discussion document notwithstanding, there are strong suggestions of the non-negotiable. (p. 2)

Chris Breen (1997), of the University of Cape Town, in asking what our responsibility is to a teacher education program in mathematics education in South Africa, and what this should look like, makes comment on the 'new South African syllabus' (inferred by the ANC document and Curriculum 2005). He says of it that "in shades of past domination rhetoric, it has started a process of trying to formulate learning outcomes for all stages of the education system. Much of this is praiseworthy. But when we start to look at teacher education in terms of learning outcomes, inevitably the task becomes prosaic to say the least. Forget about the relaxed mind, what we are here to do is to get students to show the ability to...", (p. 1), left incomplete and requiring no further explanation., as the list of 'be able to's' are potentially endless as prerequisites to constructed 'success' in mathematics education.

Clearly, the objectives which tie mathematics education outcomes to the professed exigencies of a nation and its economic "success" as non-negotiable, cannot claim democratic means, albeit democratic ends may be rhetorically established, as a means to justify ends.

As Skovsmose and Valero (2001) succinctly puts it: "Despite the democratic discourses that justify its permanence in school, Mathematics education fulfils social functions of differentiation and exclusion" (p.41).

[33] I am aware that Eisner's perspective here is not representative of the perspectives of many or even most of the research community focusing on issues in visual art education. I am merely using his standpoint as a template with which to reflect critically on these issues in the mathematics education arena. Nicholas Mirzoeff (1999) views the visual and cultural life as being inextricably interconnected and informative of each other. Counter-logical to Eisner's point and in noting the emergence of the field, he says: "there is now a need to interpret the postmodern globalization of the visual as everyday life. Critics in disciplines ranging as widely as art, history, film, media studies and sociology have begun to describe this emerging field as visual culture"

(p. 1). For Mirzoeff, his hopes for the study of visual culture, is to "reach beyond the traditional confines of the university to interact with peoples' everyday lives." In this way, "visual culture would highlight those moments where the visual is contested, debated and transformed as a constantly challenging place of social interaction and definition in terms of class, gender, sexual and racialized identities"(p. 2). Mirzoeff's art is one with a distinctively social purpose. This is not an art for art's sake!

[34] Bernstein (2000) distinguishes horizontal from vertical discourses based on their features and modes of operation. Horizontal discourse represents discourse of the 'everyday', constituted from a reservoir of local and communalized segments that have variance in the context in which they are used. This knowledge is less explicit and often implied by the context within which it is produced. However, 'vertical discourse', is constituted as a 'coherent, explicit and systematically principled structure' that is hierarchical and/or specialized as in the sciences or social sciences (p. 157).

[35] As Ensor (1997) notes: "Utilitarianism, the celebration of "relevance" and the notion that schooling should serve to develop a useful toolkit of knowledge and comportments for implementation in other contexts is as old as schooling itself." (p. 1). Nevertheless, its more recent inclusion in the 'progressive education' model of learner-centred, constructivist pedagogy, is *contradictory* in its claim to produce greater learner autonomy and mathematical empowerment through encouraging independent logico-mathematical thinking, whilst, at the same time, tying mathematical concepts to the 'everyday', the 'culturally relevant' and the unproblematized construction of the learner's 'previous knowledge'. The ideological claim to greater autonomy and democratic principles of learning is undermined by the flattening effect of the 'relevance' principle on the vertical discourse of mathematics and the inequitable array of social constructions this popularism necessarily proliferates in accordance with existing social hierarchies.

[36] Drawing on Bernstein's dichotomy of vertical and horizontal discourses, Dowling (1995) puts the issue of relevance and access in the following terms:

> Academic, or vertical, practices have been systematically distributed on class and racial lines, however. This has entailed the effective exclusion of the majority of the populations of both South Africa and Europe from the academic. This is variously achieved via the non-existence or inadequacy of schooling provision or, more subtly, by the insistence of the inclusion of the everyday and the relevant in terms of participative mythologizing. (p. 12)

[37] I am reminded of Robyn Zevenbergen's work, similar to my current and previous research work, which describes the relationship between discourse and practice and how "constructed disadvantage, begets pedagogic disadvantage" (Swanson, 1998). Zevenbergen's work is more psychologically framed than my own, more sociologically premised research, but she, nevertheless, highlights the pathologizing effect of deficit model thinking and the implications of the self-fulfilling prophecy on students constructed by their teachers in terms of socio-economic 'disadvantage' and 'low-ability'. Zevenbergen (2003) notes: "Teachers who hold beliefs of students from socially disadvantaged backgrounds based in deficit models may engender practices that reinforce the status quo and social reproduction" (p. 149). Consequently, Zevenbergen's research points to how teachers interact differently with students who they perceive to be of 'low-ability' and/or from 'low' socio-economic circumstances. These assumptions have profound ramifications on teaching and learning practices, which serve to delimit possibilities for those already without access to the discourse and/or who have been alienated from it.

[38] Skovsmose and Valero (2001) refer to an important aspect of the power invested in mathematics which highlights its intrinsic dissonance with democracy. This is where mathematics teaching is used as an obedience tool, designed to coerce students into observing teachers words and showing 'respect'. As an exchange relation, the teacher 'gives' the mathematics to the students which is purported to 'empower' them one day later in life when seeking a job or applying for a place in a post-secondary education program. This is a deferred 'empowerment' which fits the pre-determined requirements of the socio-economic needs of the nation. Naidoo (1999) explains how regimentation and threat used by some novice teachers in the South African context, is premised on this understanding, and that, in certain teaching contexts, it often leads to violent and unbalanced relationships between teachers and students, on the grounds of the mathematics that 'has to be learned' in school.

[39] As Egan (1997) avers: "the common principle of 'starting with where the student is' may be both inadequate and restrictive in ways little observed" (p. 1). Egan professes that humans, most especially children, have fertile imaginations and it is this mental asset that fosters critical thinking, - what I would refer to as the 'beyondness of thought' and what Bernstein might refer to as "thinking the unthinkable".

[40] John Mighton (2003) captures the real failure of the international mathematics education system in not offering opportunities for experiencing joy and wonder to students in their school mathematics learning, thus disempowering them psychologically, spiritually, and consequently, socio-economically as well. This failure, related to the drive of entrenching the ideological principles of global capitalism, perpetuates the myths about 'ability' in mathematics education, and ensures the continued reproduction of failure. In this regard he says: "Failure in this system stands as irrefutable proof, even for the person failing, that one was born not to succeed." (p. 19).

In describing 'the lack' of infusing joy and wonder into school mathematics learning, Mighton transfers the blame from the student, as the object of 'lack' and victim of failure, to the educational system where it rightfully belongs. As he so convincingly states, using a powerful ecological metaphor:

> If schools were allowed to build walls around our national parks, and the majority of children were prevented from entering on the grounds that they lacked the ability to appreciate or understand what was inside, we might say something had been stolen from those children. And if the majority of children were convinced by their teachers that there was nothing beautiful or moving in the sight of a snow-capped mountain or a sky full of stars, we might be concerned that they had been stunted in their emotional or spiritual growth. But an equally beautiful part of nature has been made inaccessible to almost every child, and no one has noticed the loss. (p. 51)

[41] As Jill Adler (2001) avers:

> ...whereas new practices entail "more" resources (new resources and/or different uses for existing resources), more resources do not relate in an unproblematic and linear way to better practice. There is a tension between an uncritical (re) distribution of resources to meet equity goals and how such resources are and can be used to support mathematical purposes across contexts. (p. 187)

Importantly, I would argue that a resourcing requires a spiritual and psychological commitment on the part of the pedagogic community, which knowledge as power and teaching as an act of engagement with knowledge does not always (readily) permit within context. Resourcing means a willingness of heart as much as a resourcing of the constraining elements of context to deflect its colonization of pedagogic practice and thought.

PHASE FOUR: TOWARDS JOURNEY'S END; A RETURNING.

I have returned. My physical research journey has ended, but my pedagogic one is still, perhaps, embryonic. I know this journey will lead to other journeys and has no end. But I must find closure, or others won't begin.

The moon is in its last quarter. In its waning light, I am conscious of distance. Distance makes objects difficult to see. Yet, having seen them already, one can now invoke memory and imaginative vision to reconstruct how they are perceived. Perhaps one sees them more 'clearly', more fully, because one must interpret their existence.

Metaphorically, this is 'a returning' and 'unpacking' phase. This is a time when photographs of memories are placed in an album, and reflective journal entries completed. This phase of the pedagogic journey, walks the reader through the returning phase and through finding 'stopping places' to pause, reflect on proximities and distances to research relationships; to stand back; and to allow the voices of the journey to come together, collide or coalesce in finding new meaning in the way they shape experience and create emergent identities. It is also a time to ponder and seek a new way ahead, perhaps embark on another post-travel journeying. But importantly, there are still things to attend to in returning. *Returning* is thus a double entendre in the dual senses of 'going back' and 'giving back'. As the moon returns to its first phase, a ring of light is left, marking the promise of a full moon returning, and the hope of other 'returnings' to come.

VOICES OF SILENCE

As a post-research journey reflection,

this acts as a prosaic interlude which speaks of the many interpretations of silence, both in the theoretical sense, as well as in the metaphorical and physical journeys and daily experiences of my fieldwork and research writing.

Silence.

Like echoes of phantom murmurings…

faint and yet deafening, lie its many articulations.

Silence.

Gurgling and spluttering through the medium of voice, it is the message we seek,

or avoid, as we search to create our representations of interpretive realities,

and the beyondness of thought…

It is the sacrifice given for the unheard, the unthinkable, the unjust,

it is our unconquerable nightmare of virtual possibilities, never to be grasped or realized,

and it is, simultaneously, our only reach of Hope…

Silence is our denial, and it is our death, … yet it, too, is omnipotent and vital.

It is, at once, all-consuming nothingness, and the place of everything.

It is the illegitimate, the unreceptive, the uncontested,

and, within the subaltern, it is the place of credence and tacit consent…

Paradoxically, silence is also the source of validation, legitimization and authority,

while simultaneously acting as the figments of the same.

It is consonantly the voice and the place of voice.

It is at once the real and the remnant of the real.

It is the subversive and subverted.

Seeping insidiously between the fractures of broken selves,

silence is the dark places of our histories and the threat of our futures …

And yet, silence is the invisible thread that binds meaning to the word.

It is the pauses and tacit places of language,

freeing metaphors to seek new connections.

It lives between the seen and the unseen,

making invisible the visible,

exposing the hidden and suppressed,

and gives life to that which is not, …

Silence is our collective alter ego, and the otherness of our other selves.

For whatever ends, it defines the means.

It is the interstitial and intertextual places of 'lack' and 'deficit',

the schisms between ideologies,

the rupture between knowledge-as-agent and knowledge-as-event,

the rent between signifier and signified,

… and yet, yields to sophistry through the murky conflation of meanings…

But it is also the attendant absences *within* as well as *between*, …

It provides the selectivities of thought and language,

and the medium within which the composition of constructed 'Truth' takes root/route, …

It is noumenal, present by its own definition,

and it is utopianism, living beyond existence,

caught between the finite and infinite…

It eludes form and shape, and yet gives presence to formlessness, …

For silence is the powerlessness of the voiceless, the hidden voice of power,

and it is the voice that speaks of power outside of itself, …

It is, for those who would listen, the voice yet-to-be-articulated, yet-to-find-form, …

For some, it is the podium of diverse perspectives and multiple realities.

It is the frame within which voice defines its purpose,

recessed into negative spaces, shadowy against the 'real' and the 'relevant',

yet, incandescent against the forefront of its 'other' self, …

Silence is the scepter/specter of knowledge and thought,

overshadowing the abstract and intangible with its own vivid ungraspableness, …

It is nowhere to be seen and everywhere at once.

It is solace in solitude, fine and crisp like an early morning frost, …

and it is desolation, deep and despairing,

while being all but nothingness in its cosmic magnitude and soulless presence …

Silence.

It is the hyphen…

the fulcrum of our dichotomies, the fixture of our binaries,

It is the elisions of paradox and dilemma,

the breath of irony and contradiction, …

It is the comma, the pause, the waiting.

Silence as anticipation, prelude and prologue,

directs meaning, shapes experience, narrates event…

At the nexus of hybridity, it lives in aporatic spaces,

seeding itself within rhyzomatic and reticular pedagogies,

producing uncomfortable meaning….

Nevertheless, it finds root in the realm of the simplistic and absolute.

It cunningly shrouds itself in opaque truths and translucent simulacra…

Making the real unreal, making the unreal the new real.

For silence is the audience and players of its own performance,

dancing to the rhythm of the voice,

voicing the dance of the unvoiced,

choreographing the journey ahead, …

Silence…

it is the absence of light, and simultaneously, that which gives light definition.

It is the withoutness and, concomitantly, the withinness of things…

It is the romantic and banal,

it is vulnerability and strength,

it is the counter-logical, confusing and disruptive, meeting in the mists of 'the rational'.

It is peace and possibility fused within the straining places of lost meaning and despair…

It is the normalization of the abnormal, the destabilization of nature…

It is emergent, ever- constructive and deconstructive,

the reality beyond myth,

the mysterious beyond the mundane.

Silence, quieted by the vociferousness of expedience and perniciousness,

it is the hallmark of unspoken honour and integrity.

But, silence is also heard in the cataclysms of the incommensurable,

the inescapable of that which alludes, …

As the seat of power presiding over thought and the unthinkable,

having jurisdiction over their limits,

silence is the agency invested in the discontinuities between lived and unlived realities.

It is the gateway to boundary,

the inevitable set against silhouettes of the intangible.

Silence. It is the slipping place of disadvantage and exclusion,

the disjuncture between misaligned discourses and knowledge forms.

Silence is the mockery of purpose, the idyllic, the frail, the passable moment,

the intransigent,

the implausible,

the mindless,

the incompatible…

Silence.

It is deceit, deception and hopelessness,

and it is grace, dignity, living hope and hope in living.

As such, it is the place from which all understanding, texture and spiritual life co-emerge,

It is the inchoate and embryonic space-to-be as a site of struggle for meaning, …

it is the beginning and end of all beginnings, the end of the endless…

Silence….

VOICES

Voice is not a technical feature of writing, like style, to be refined with practice or changed in form until the writer achieves "correct" effects. Nor is voice a bellwether of fieldwork maturation, a quality that "improves" as research progresses in time along some imagined continuum from first impressions to final analysis. Voice can be improved, but only as writers become more sensitive to communicating the fullness of fieldwork phenomena, green or ripened.

(Charmaz and Mitchell, 1997, p. 195)

Voices of research. Voices of (the) people. Voices of a pedagogic journey. Collisions, ruptures, intersections, subjugations, disjunctions, mergers. Voices of hegemony. Voices of silence. And I am the connection between them. The symbolic mediation lying within a single text, which I construct, sculpture, shape, paint with vivid words, like an artist on a canvas. And like an artist, I try to bring out the texture of the materials with which I work, so that their 'natural' constituents will show up: the voices of the people, heard from the ground, heard with sincerity and carrying the context of their lived experiences. This is the challenge of the narrator: to draw the characters, the people, as Barry Lopez says, "up into life, up out of the ground" (p. 45). Yet, I know that these voices are modulated, muffled through the funneling space of research – even elliptical research, which tries to weave rhyzomatic paths, back… back to the ground….

The utterances, taken away from the contexts of production, are now fragmented performances of language, recontextualised in a new textu(r)al place, so that the effects of mimesis are compounded. The intertextual, intratextual, and interdiscursive merge, as abutments are constructed between utterances borne from divergent contexts, where threads and wisps of fabric of the place, its ambiance and taste, of the different sources are carried with the phonate. I am reminded that words carry the competing historical and social meanings of the places they have been borrowed from and lived in before (Bakhtin, 1981). And I am the arch that anchors the abutted utterances as if they naturally lie contiguously, in a new temporal and spatial continuum, rooted to a new 'real'…. But, this is not so. I have, instead, abutted them not to show continuity and confound meanings, but to "sign post" (Derrida, 2002) their disjunctions, make visible the ruptures,

make conscious the paradoxes and ambiguities produced, and highlight the ideologically irreconcilable in inherent contradictions between incommensurate contexts.

And so, brought together into uncomfortable space, the voices speak .....

Voice of Principal of "Visserman's Baai Hoër" (Fisherman's Bay High):

You know, there are many social problems in this community... so it is very difficult... we have the problem with drugs and gangs here, and also there are a lot of domestic problems in the home and lots of alcoholism.... You must remember that there is a lot of domestic violence and then there is also a high incidence of rape in this community also.... And with all of this, the parents don't really care about the kids' homework, so we don't get the support from the community... that is why we get very bad results. And the department has classified us as a 'dysfunctional school'. ...
You know, when people hear the name of our school, it sounds like an ordinary school, Fisherman's Bay High, but they don't realize that it is 'us', it is actually, Visserman's Baai Hoër, and we are not like other schools; we have no resources like the other schools and we are this problem community...

Voice of Mathematics Teacher, Mr. P., at "Visserman's Baai Hoër":

Well, I cannot offer any of the kids here the chance to do Higher Grade mathematics that would get them into a B.Sc. at university. I've told the one or two that I think might have a chance of passing that I just don't have the time. If they want to do it, they are on their own...so, they usually tell me: "Sir, it is all right. We understand. We will do the Standard grade."... I just can't help them. I have to spend my time with the ones that are battling and there are so many of them. I have to cope with trying to get as many as I can to scrape a pass on the Standard grade or Lower grade, so that the school doesn't get into trouble again by the Education department. They are looking at our bad results, and they are demanding from us "why are you failing?", and we still fail... and it doesn't get better...

Voice of NGO (Non-governmental organization) Mathematics Consultant (in reference to Visserman's Baai Hoer):

You know, there is a particular dynamic about that school. I don't know... there is something wrong. We had an expert, a really very good black mathematics teacher teaching there, a specialist, and he tried and tried and he got ***very*** *frustrated. They were offered the opportunity to have another extra teacher full time to help with the demands on the staff, and a London-based NGO would pay the teacher's salary and we suggested a mathematics teacher, you know, ...they would be able to have the support of specialists from our NGO, but, no, they wouldn't opt for our suggestion. They chose to have another Xhosa teacher instead, because of the influx of Xhosa students from the rural areas, and not another mathematics teacher to try and help with their bad results. And this specialist mathematics teacher of ours went in there for a year anyway and eventually he just shook his head and told us that he couldn't help... that it was an impossible situation and that you couldn't do anything with that school... So we just gave up on them.*

Self-positioning in terms of deficit, the positioning by others, and institutional bullying: 'disadvantage' becomes its own 'truth', uncontestably 'real', narrowing the possibility of other interpretations, so that one, single, Truth is established and entrenched. Weighted under by these discursive elements of 'lack' and 'deficit', the production of 'failure' is compounded, so that it continues to self-reproduce, and operate without external stimulus. But this is not sustainability, or autonomy. Liberation from the conditions of 'poverty' has not been made available. There appears to be no real productive contexts that would evoke legitimate avenues being opened up for dialogue towards liberation.... Victim blaming, self-blaming, voices speaking themselves down. Voices speaking across each other, drowning out the voice of others, but making vocal the voice of 'otherness'. There is no authentic listening, there is no dialogue in accusation.

Voice of mathematics teacher, Mr. P., at Visserman's Baai Hoër

The department finally gave us permission for one extra teacher because of the bad results. We got an extra Xhosa teacher to help us with the influx of Xhosa students. They have the problem with the language in mathematics. We teach the Xhosa ones in English. But the Xhosa teacher, well, she is teaching when we teach maths, so she's not there to help us in the maths classroom.... But these kids are lazy anyway. ...I've noticed, though, the students are mostly coloured at this school, right?, so they don't really respect the black teachers. Even the black kids don't respect the black teachers here. They think the white teachers know the most, then the coloured teachers, but there are no white teachers here. They think black teachers know nothing, so they don't listen in her classroom... Ja, the old apartheid still hasn't left our children in this community.

Student at Visserman's Baai Hoër

But the Xhosa teacher, she doesn't know how to control a class. So we learn nothing. Xhosa is a joke. It is the Holiday Inn.

Racial prejudice embedded in discourse, a covert curriculum overlaying and undergirding the institutional one. Instructional discourse embedded within regulative discourse, and regulating codes within the social domain recontextualized within instructional curriculum (Bernstein, 2000). Success of choices made to improve mathematics instruction become deflected by other overarching discourses, holding them to ransom. The weight of prejudice borne out of poverty education *flattens* pedagogies of transformation... Poverty education begets itself....

Voice of advisor to the National Minister of Education, on Science and Mathematics Education, Mr. K.

Mr. K: *We have a fantastic new curriculum document and everywhere I go the teachers come up to me and tell me that it is a fantastic piece of work, wonderful democratic ideals. They just love it!*

DS (interviewer): *But I've also heard that some find it very confusing, the outcomes based principles for maths. They tell me that they are not sure anymore what to teach. Some even refer to it as a 'watered down' curriculum, especially in maths. Don't you think there is a bit of a dangerous problem with interpretation here, and the way it is realized in practice compounds the difficulties in the classroom?*

Mr. K: *No, it is just that it is not prescriptive like the last one. We are trying to get far away from CNE. No, I've only heard how much they like it. The document is a good one.* ***This*** *is what we need!*

Voice of black primary school teacher (at AMESA conference):

You know Dalene, between you and me, I have a problem with this new curriculum document of ours. I don't really know what is expected of us. You are teaching maths, and you don't know how you are supposed to evaluate and you must teach in this new way, but I don't know what the criteria are. They say there mustn't be prescriptions any more, but I don't know how to teach if I don't know what the expectations, like the criteria for the teaching, are. So I struggle in the classroom and I try to look like I know what I am doing. I don't know what the learning is. I don't know what it must look like. But I can't say anything, because, you know, this document is so respected. I agree the democratic ideals are very high up there, and I am glad, but I still don't know what is expected of me to teach the maths.

Voice of teacher, Mr. S, at Visserman's Baai Hoër

Now with this new document you are supposed to water down the mathematics. Everything is about democracy in it, but there are no details about what exactly you are supposed to teach. There seems to be a lot less maths in it to teach. So you teach this new curriculum, and it is all watered down, but the exams are the same, and so the students now ***really*** *fail,* ***worse*** *than before! ... So now what am I supposed to do?*

Voice of NGO mathematics teacher

I hear some of the teachers have a problem with this O.B.E. curriculum. Some think it is watered down, but they are misinterpreting it. The curriculum document is a very good one. They must learn to understand the objectives better.

Miscommunication. Missing recognition rules of the context. Missing realization rules (Bernstein, 2000). Voices of alienation, across contexts. One legitimating context illegitimizes the other. Voices drown. Voices are not heard. Voices in the silence, contradicting, missing their mark, falling into slipping places. How do we bring them together so that they can dialogue with each other, not speak at or over each other? This is how the construction of disadvantage operates. Where does the legitimating principle lie to acknowledge the illegitimating principle of power within an alienated position? How can we produce a legitimizing text within a context of disadvantage?

Voice of Higher Grade mathematics student at Broughham House

If you do your homework, the teachers are here to help you. You must always be prepared to ask as many questions you need in class. The teachers always answer your questions, but they also ask you lots of questions, to keep you thinking and on your toes, so they can see if you understand.... I'll pass Higher Grade. Actually, I want to get an A. I'm going to do medicine at UCT (University of Cape Town).

Voice of Standard Grade student at Brougham House

You got to keep up with the homework. Maybe I didn't keep up with the homework so much. But I needed to go slower, 'cause I must know the rules. But actually, if I work hard and do well in Standard Grade, maybe I'll try to get back up to Higher Grade again. You need maths so much for university!

Voice of Student at Visserman's Baai Hoër

Ja, I'd like to do maths, but I am no good at it. The teachers try but we... all of us... are no good at maths. It is just like that! I would have liked to try medicine or nursing maybe. I don't know. I won't make it, 'cause I'm gonna fail.

I hear my own voice at an international education conference held in 2003. Although I am speaking of previous research in a stratified all-boys independent school when I refer to "the first study", the contextual conditions and their realizations apply equally to 'THE FINDINGS', (in accordance with the conference's presentation protocol), I have described here for Brougham House. The "second study" refers to the one school of the current research – Visserman's Baai Hoër. I notice how my voice *echoes* within the hollowness of the context of formal presentation, just as my person is *absent*:

In the case of the second research school, the construction of "failure" in school mathematics was more *visibly* established compared with the first, and less of a hierarchy was produced between "successful" and "unsuccessful" students in this context. In this way, the students tended to be homogenized in terms of "poverty", and, consequently, "race", class, "social problems", "learning difficulties", and other experiential deficits. Further, procedural and indifferent teaching practices within the second school were all pervasive. There appeared to be little opportunity for "generalizing practices" (Bernstein, 2000; Dowling, 1998,) which may have been more empowering mathematically to the students. Nevertheless their constructed "failure" was spoken of as being a "problem" of the community and a "fault" of the students themselves, reinforcing and establishing deficit discourse and practice concomitantly.

A disjuncture appeared, as in the first school, between student expectations and what was possible for the students, situating them in terms of disadvantage. Whilst the first study showed that hierarchies produced *within* the "stratified" research school (Bernstein, 2000) strongly *reflected* hierarchies within the broader social and political domain, the second study showed how schooling within this 'disadvantaged' community reflected discourse and practice which situated the school and schooling context *more directly* in terms of the broader social and political context. In other words, the schooling community, being less empowered, was deeply embedded and oppressed by the existing social relations and the socio-historical and political conditions of its place and time. Constructed and established 'poverty' created a *weak* pedagogic voice of mathematics. Consequently, there appeared to be little possibility for contested terrain *within* the community which would enable its students to be provided with access to the "regulating principles" (Dowling, 1998) of mathematics and consequently facilitate their socio-economic and political empowerment.

I hear my voice echo again against the walls of the conference room as I move into the final section of my presentation:

> 'EDUCATIONAL SIGNIFICANCE OF THE TWO STUDIES':
>
> The two studies, therefore, propose an alternative reading of educational and social difference to research which approaches student non-achievement in terms of 'deficit' or 'disability'. The studies provide an understanding of the role of context in the production of subjectivity and the manner in which discourses within the broader social domain, and the schooling context, differentiate groups of students in accordance with social difference. To these students are distributed differentiated discourse and practice that are most often disempowering and situate them in terms of social difference, 'disability', 'poverty' and 'disadvantage'.
>
> The studies serve to alert the education community to the contextual complexities of mathematics education in different South African schools and to the specific socio-economic and political realities which remain a challenge for the future. Further, the studies have important implications for other socio-political, economic, pedagogic, and geographic contexts where students from diverse communities, constructed in terms of social difference, are not well served in their mathematics learning at schools. Most importantly, this research has implications for a more critical examination of, and emphasis on, contexts of learning, which are often delimiting and disempowering. Consequently, it is also important in considering the way in which, for example, "progressivist" ideals and universal or global trends in mathematics education are interpreted and recontextualized within different classroom contexts. Often, policy initiatives and rhetoric on "better education" do not properly consider the complex, contingent nature of school mathematics discourse and practice, or the socio-cultural, economic, political and historical differences in contexts of schooling.

My own voice echoes hollow in this formal context… but, inside, my body and my soul, live the voices of the people of the Visserman's Baai community….

Where to look is one thing. It is already difficult. What to do is another. We create our own 'normal' and this is a tremendous danger, perpetuating the 'unseeing'. Hegemonic discourses and ideologies of power collide with each other, one or more are subsumed within others to reproduce and entrench disadvantage. Globalizing discourses are recontextualized within local contexts in mathematics practices so that social difference and disadvantage is pedagogized and maintained.

The moon is waning, but we can light a torch of hope to see in the dark. If we look within ourselves, we may find some transcendent light within our hearts and souls to guide us. We encounter obstacles along the way, we stumble, we may even fall… but we *can* and *must* raise ourselves and continue, …

… for the road is long…

VOICES IN THE SILENCE:

AT JOURNEY'S END,
A CLOSING AND OPENING

This is my story which I have related, if it be sweet or if it be not sweet, take some elsewhere and let some come back to me.

The traditional conclusion of the Ashanti narrator

It is perhaps difficult to view despair, sorrow, or disadvantage as opportunity, but that is what it is, depending on how you choose to look at it. Depth gives impetus to height, dark gives emphasis to light. This is reminiscent of Charles Austin Beard's famous quote: "When it is dark enough, you can see the stars."

Sometimes the oppressiveness of a context makes us almost falter, to want to give in to the hopelessness as if this were an easier path for those who live it out. But, it is no easier path. It is only a perceived 'easier path' for *us*, where we think we can escape from making moral choices. This way we avoid the weight on our consciences, by shrugging our shoulders and affirming that 'it is out of our control'. The 1913 version of the English Webster Dictionary speaks of morality as the "quality of intention", supported by the following quote: "The morality of an action is founded in the freedom of that principle, by virtue of which it is the agent's power, having all things ready and requisite to the performance of an action, either to perform or not perform it – *South.*" Morality, then, is about personal and collective choice and is pivotal to it. Giving in to despair on behalf of others is a path of luxury. If we don't hold to the meaning of making choices, and continue to put ourselves in difficult places to contest the oppression, then hope becomes the luxury of circumventing the despair. This is not real hope; hope as lived, hope as embraced and experienced by those who choose to live it out as real despite their dire circumstances.

I have been overwhelmed by the spirit of hope and courage displayed by those who seem to have no cause for it. On my returning, if there is one thing I carry with me as a gift of

experience from my pedagogic / research journey, it is the spirit of kindness, generosity, overwhelming goodwill, openness, and reconciliation from the people whose lives touched my own. It is this spirit of the people, their wholesomeness and inner sanctum, that holds me up and makes me intent on seeking more closely, empathetically, and collaboratively, for the most miniscule of fissures of light within the vast gloom of situational despair. I know that it may take a gargantuan collective effort to prize it open, widen it, force it to new meanings that can be lived, so that the space of light becomes wide enough to be recognized, acknowledged, legitimated. But, it has been done before, and it can be done again. In this intent, lies a greater freedom of respect for all humanity, as well as oneself. Effort towards others' self-autonomy and empowerment gives back one's own self-integrity: dignity gained by giving dignity away. As Mandela acknowledged the challenges for the post-apartheid nation:

> The truth is that we are not yet free; we have merely achieved the freedom to be free, the right not to be oppressed. We have not taken the final step of our journey, but the first step on a longer and even more difficult road. For to be free is not merely to cast off one's chains, but to live in a way that respects and enhances the freedom of others. The true test of our devotion to freedom is just beginning.

When I left Visserman's Baai Hoër on the last day of my research there, I went to say goodbye to everyone I'd come to know and who had helped with my research. I knocked on the principal's door and was welcomed in. I think very highly of this man. He is so dedicated and determined, despite the constant academic "failure" at this school, the situational context of poverty, the gangs and family violence, the apathy of others about

him or their dejection, the bullying by the education department. When everyone else had left the school for the day, you often walked past a classroom and saw him sitting there with students who had been given a detention. No one else wanted to take on this duty, but he would sit there trying to help these students with their homework. As a leader and role model, he was a very gentle man despite the harsh circumstances he had to work in, which I have no doubt, proliferated a multiple of daily dilemmas. But, he never shirked his duty, and he had his spiritual faith which he held high like a torch. His demeanour, self-pride and personal integrity, rose up from the murky quagmire of desperateness that reproduced itself daily.

In making light conversation after thanking the principal for everything he'd done for me during my stay, I made mention that it was often difficult to get permission from the Education department to do research in schools in South Africa, and that very many researchers had been turned away. He responded by saying: "No-one can stop you if you are sincere about trying to make a difference. They didn't stop you because they could see you are sincere". This was the greatest compliment I was given throughout my research travels. The principal of this purportedly "dysfunctional school", showed the wealth of his humanity to me, a pedagogic gift that could hardly be deemed unworthy, deficient, lacking. He transcended disadvantage with his heart. I realized then that *transformative* pedagogies, in the end, were really about *transcendence* – the capacity to rise above, to find goodness even in the slightest of things, to find the opportunity to turn deficit into human wealth, disadvantage into hope. Yes, it is about pedagogies of hope and the heart.

I remember standing uncomfortably at the back of a grade 10 classroom at this same school, while the teacher teaches a congested class full of students. As before, at this school, the students are expected to fail mathematics. The lesson is procedural and unengaging. The students sit and listen in quiet. The teacher turns to look for a large green checkered chalkboard that could be attached to the main chalkboard, to assist in teaching graphs. Yes, he has forgotten that it has disappeared. He's already mentioned its disappearance in another class. He laughs jokingly and turns to the class, addressing them in Afrikaans: "So, those of you who see my chalkboard somewhere in the township one day, maybe it is a nice door by now, maybe it is someone's roof, but you can ask them please it would be nice to have it back. Mr. Steenburg needs it to teach graphs. I know they might need it very much, but teaching graphs is not the same without it." The class responds with laughter, and it lightens the air from the heavy stench of rotten fish emanating from the harbour and the smell of too many bodies in the room. The classroom is stark and there are no posters or colourful charts on any of the pitted and marked walls. There isn't even any graffiti. There is one sole poster pinned up on a metal cabinet by the teacher's desk. On it is printed the words of Mandela's final statement from his Rivonia trial of 1963. Despite the twenty seven years of imprisonment that succeeded these words, the hope rings out in them as it reads:

> During my lifetime I have dedicated myself to this struggle of the African people. I have fought against white domination, and I have fought against black domination. I have cherished the ideal of a democratic and free society in which all persons live together in harmony and with equal opportunities. It is an ideal which I hope to live for and to achieve. But if needs be, it is an ideal for which I am prepared to die.

From where I am located, it appears that the ideal of a democratic and free society, one which begets equal opportunity, does not live here, in this schooling community, yet. But even in the poster's symbolic irony, lies the mark of intent, of something someone or some people aspire to trying to achieve, by having it represented within their collective, community space, no matter how utopian this might seem for this moment. A beginning… or perhaps even more…. As Bertolt Brecht said:

"In the contradiction, lies the hope."

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