Spiraling reference: A case study of apprenticeship into an academic community of practice

W. Hugo
School of Education and Development
University of KwaZulu Natal
South Africa
e-mail: hugow@ukzn.ac.za

Abstract

Recent South African meditations on the complex nature of post graduate supervision and teaching by Fataar (2005) and Waghid (2005; 2007) provide excellent accounts of the dialogic space between lecturer/supervisor and student. However, these accounts need to be supplemented by an explicit discussion of the broader academic communities of practice that post graduate students should be inducted into. This article uses the science studies of Latour (1993; 1999), the network theory of Collins (1998; 2004), and the formalization studies of Stinchcombe (2001) to trace the apprenticeship of one masters student into an academic community. It traces her implication within ever expanding intellectual networks and their academic practices as she is inducted into the peculiar rigours of post graduate research.

INTRODUCTION

Aslam Fataar and Yusef Waghid's accounts of their own post graduate supervisory and teaching practices have illuminated a difficult and seldom explored facet of South African academic life. By bringing to attention the complex and negotiated dialogical space between supervisor/lecturer and student, the personal identities that meet within this space, the fractured apartheid landscape and the pressure of academic demands, they have provided invaluable insights to post graduate supervision and teaching. Their accounts, however, need to be supplemented by a description of what it means to be inducted at a post graduate level to an academic community of practice. The supervisor/lecturer is a gateway to a whole new set of practices and networks that move beyond the dialogic space between supervisor and student into the wider intellectual communities beyond them. This article provides an account of how one student was inducted into a specific academic community and the complexity of how this community functions. In conclusion the article argues for a combination of the intense interior and dialogic accounts of supervisor/student relationships with a broader account of the academic networks and communities that circulate around the relationship.

 ISSN 1011-3487 SAJHE 23(4)2009 pp 703–721

ASLAM FATAAR AND YUSEF WAGHID ON POST GRADUATE SUPERVISION AND TEACHING

Picking up and substantially elaborating on Jansen, Herman and Pillay's (2004) account of various student experiences of the doctoral proposal process, Fataar (2005) provides a nuanced meditation on his own relationship with two of his doctoral students. He quickly captures the fragile and personalized nature of the interaction. The students were both older than him and he had recently undergone a foundational shift in his own intellectual life from emancipatory political logics to a more modest position of attempting to understand intricate human relationships. From wanting to liberate with truth as his sword Fataar now listened in an open and humble way to authentic contextualized experiences. This carried over into the supervisory relationship. He attended to the affective dimensions of supervision, aware of the subtle energies flowing through what is a very human endeavor. In his two students, however, he found a strong attachment to the very emancipatory drive he has just stepped away from.

> My intellectual interaction with the two students was informed by the intention of getting them to understand what I regarded as the social complexity that characterised contemporary South Africa. I believed that both students initially viewed their study along the lines of a single dimension, in terms of which they regarded successful progress and change as the outcome of activist-driven programmatic intervention. This approach, I believed, eschews an understanding of the intricacies involved in change in especially the type of marginal and impoverished contexts in which they proposed to do their research (Fataar 2005, 53).

The struggle became one of shifting his students away from an attempt to immediately use what they were learning as a weapon of freedom to spending more time and care understanding the involvedness of the situation in its own terms. There was nothing simple about the shift as the students initial identities were intimately tied to an interventionist mindset that desired transformation. Fataar goes on to show in the paper how he managed the process of shifting his students from wanting to immediately work with the practicality of the idea towards a scholarly identity that stayed with the idea and the situation until the full complexity established itself. This happened within a process of mutual engagement based on trust and respect.

> I pushed and prodded them to question their intellectual assumptions, and to develop some critical distance from their understanding of their proposed study or research unit of analysis. Shifts in their thinking were never imposed. They were always the outcome of the serendipity embedded in ongoing conversations in which the views held by the students and their ability to recognise and adjust their thinking were affirmed and valued. While I always engaged, at times robustly, with their conceptual approaches, our relations were always based on affirming their capacity and autonomy in deciding on the type of study they wanted to propose (Fataar 2005, 49).

Yusef Waghid delicately puts his finger on the above as an 'act of loving'. It is an insightful move, all the more so because it deploys the substantial armoury of Derrida's deliberations on friendship (Derrida 1997) to elaborate on what is involved. Friendship is an act of caring that is not based on any expectation of reward or pleasure, it is done for the good of the other without conditions attached. The capacity and autonomy of the student is respected in the process of evoking their potentiality. This creates a space for authentic learning where both student and lecturer can engage without the pressures of obligation appended, without the unspoken 'you owe me so do what I secretly want'. This act of loving involves giving without the weight of the gift attached.

Waghid (2005, 2007) combines the act of friendship with the need for forgiveness, and in so doing manages to locate the supervisor/student relationship firmly within the context of our Apartheid past. Forgiveness is the creation of a free space where new possibilities can arrive after repeated acts of harm and vengeance. It breaks the cycle of reaction and allows a fresh opening where the imagination can again breathe and grow. By revealing his own personal experiences of racial discrimination Yusef helped his students break their silences, uncover their own experiences and break through into another world, one that did not repeat patterns based on the racialized past but confronted it and in the process stepped beyond into a new space of possibility. Imagination, forgiveness and friendship thus form a pedagogic trinity for Waghid that theorizes the processes of post graduate supervision and teaching. Rather than imitating their master's voice, or merely going through the motions needed to get a degree for market purposes, students find themselves within an engaging process that pushes them to take the initiative. It is not the case that academic rigour is lost, only that it is continuously directed at students finding their own voice, one that is free to accept or reject the voice of their supervisor. It is a 'dialectic of freedom' where the student learns to critically negotiate the terrain in their own terms and the supervisor carefully and respectfully engages with them through the process.

It is salutary to remember that in Hegel's *Phenomenology* the realization of a dialectic of freedom along with the forgiveness it entailed was an astonishingly difficult and late stage to reach, and although I do not want to get into Hegelian technicalities I would like to simply point out that deeply underpinning both freedom and forgiveness within the *Phenomenology* was its opposite – the master slave relationship and the apprenticeship it involved. It is precisely this dimension to the supervision relationship that I think has been obscured by the account of friendship and love given above. Fataar has some sensitivity to this paradoxical dynamic in his pointing to how he laboured hard at establishing his scholarly authority by getting his students to read his own work, and then by working on them making the same transition he had from a world of practical engagement to a world of *verstehen.* He pushed them into a humble understanding of the forces that be by getting them to submit to the complexity involved, silencing them down to the point where a careful listening could occur. But the point that both do not emphasize due to the nature of their own focus is the very real need for a student to submit to the rules, processes

and realities of academic communities as a precondition to finding their academic voice within it. I would like to elaborate on the nature of this process using one of my own Masters students as an exemplar.

BRENDA AND THE NRF PROJECT

Brenda is an English teacher in the small town of Dundee in Natal, she is a middle class, white mother/wife/teacher who is involved in both school teaching and the attempt to implement the current reforms of Curriculum 2005 at a grade 10–12 level. She was actively involved at a district level with introducing teachers to the new reform and its implications for English teaching. When initially starting her Masters course in 2004 she was interested in researching what Genre theory had to say about her teaching of English with an eye to improving her own practices and those of her colleagues around her. This activist stance was very similar to Aslam Fataar's two Ph.D. students. However, in doing Curriculum Studies as her specialization she suddenly found herself caught up by a research programme that found her useful. I am intentionally giving the research programme a half life of its own, for it is in her intersection with it that both she and the research programme form a hybrid that resulted in her research work.

The research programme was a small NRF funded project at the University of KwaZulu Natal (UKZN) investigating the impact of the latest phase of the implementation of C2005 at a grade 10 level. It provided 7 bursaries to Masters students who were able to do research on this topic. Brenda was one of the 7 selected and inducted into a small community of practice. The three directors of the project (Ken Harley, Carol Bertram and Wayne Hugo) had utilized a Bernsteinian framework to construct the research programme, picking up on an initial suggestion of Volker Wedekind. Under time pressure to get the proposal in they had used the work of colleagues of theirs at the University of Cape Town and the University of the Witwatersrand, as well as work further afield, specifically from Portugal, to help construct a comprehensive research programme. This was possible as both the conceptual apparatus and research instruments were already tried and tested with clear exemplars published in research journals or available from doctoral research and other research programmes. This enabled an ability to track the reform process from its initial stages of conception to its later phases of implementation. Brenda and the rest of the cohort doing Curriculum Studies were introduced to this research programme at the beginning of their masters course. They were informed that a massive amount of specializing work would be needed before they could begin their research and that their research question and methods would have to closely articulate with the programme. The idea that they were individual researchers gloriously creative engaged in the quest to answer big questions of education in their own voice was cut down from the beginning. They were apprentices involved in a process far larger than themselves and they would have to learn all the specialized languages and tools necessary to make a small contribution to the field, 'a walk on

part in the war' as Pink Floyd would have it. These practices were all already clearly demarcated and a 'community of the adequate' from the educational field stood by, ready and able to judge whether they had managed a passable performance.

LATOUR AND INTELLECTUAL TOOLS

It was in the tools that the key to their training as educational researchers lay. All the specialized theories and key debates were initially glossed in favour of introducing them to the materials and instruments they would need to understand and manipulate when doing their research. Two sets of tools were initially offered them, one set to analyse the relevant curriculum policy documents and another to analyse relevant classroom practices. Both sets of tools had to be similar enough to provide coherence across the policy practice divide but also different enough to work at their specific levels. They had to apply the analytical tools to the policy documents and classroom transcripts, making explicit judgements that were discussed and compared with their peers before being rejected or accepted. The correctness of the judgements did not depend on peer agreement however, but on specialized explicit criteria and the skill of the lecturer, who would often in the early stages have to point out when and why they were wrong, either as an individual or as a group. Reliability came not from group consensus but from explicit specialized criteria that the expert lecturer continually opened out and displayed to the group. A similar process to Fataar's establishment of academic authority through getting his students to engage with his work was underway here, except here the conduit was an impersonal set of academic tools. Although the group was reading in and around issues of curriculum it was through these research tools that they got their first induction into what research at a masters level demanded in relation to the NRF project.

The students then returned to their classrooms with these tools. The instruction was to bring the classroom experience back to the research group in an altered, reduced and more ordered form for discussion and comparison. It was an exercise in metonymy. The space and interactions of the classroom experience were classified into various analytical components and brought back to the university as a transcript with codes attached. It was emphasized that bringing the real, live, messy classroom back to the research group was both impossible and beside the point. Crucially however, something of the classroom experience had to be preserved in its transport to the seminar room, something had to stay the same in the shift from tape to transcript to code. A small number of significant features from a thriving school life had to cross over the gap, keeping something invariant in the recontextualization. Much was gained in the loss. The seminar room was quiet and air-conditioned. More importantly, the various students could place their analyses on the same table and compare, not only with each other, but with previous analyses done in the years before and with other analyses done in different provinces and different countries. An enormous expansion of comparative ability in time and space opened out for analysis in the quiet, intensely focused room. Lessons could be rearranged, parts

placed next to each other and recombined, patterns looked for that would not emerge from a researcher having gone from classroom to classroom in the real world trying to absorb the actual thing. In losing the classroom the students gained insight into it. By the way, this account parallels a fascinating account of how scientists attempt to establish whether the Amazon is expanding or contracting (Latour 1999). Both show how to make sense of 'jungles', whether they be the leafy or concrete version.

This changed both the students and the lessons they had brought back with them. The students learnt to take apart the lessons and reorganize them based on principles standardized within educational, and in this case, Bernsteinian research traditions. This broke them out of a practitioner attitude. They began to grasp what it means to become a researcher; of how to make the many shifts from concrete to abstract and back again. The significant point was that at none of the steps along the way was there a sudden massive divide between the real classroom and the theoretical apparatus. The gap may appear as a chasm if the extreme end points are focused on, but in the actual practice of research small recontextualizations continually cross small gaps, moving from concrete to abstract and back again (Latour 1993). The key, as always, is to look at the tools being used. In this specific case the tool is a Bernsteinian analytical matrix that divides classroom life into 36 variables. Around half the variables explore who is in control of the selection, sequencing, pacing and evaluation of classroom life (what Bernsteinians call framing); the other half goes into how the subject lesson structures its relationship to other subjects, its own subject's subsets and its relationship to everyday knowledge (classification). If one reads a philosophical discussion on the merits of framing (e.g. Dowling 1999), this is so far removed from the classroom that it is hard for a student or academic to see the connection, but starting with a grid that combines the two in an explicit way means that by starting in the middle the gap is far easier and smaller to cross both ways. Figure 1 gives an example from variable 1.

Table 1: Example from variable 1

1. In the introduction / discussion to a task	F^{++}	F^{+}	F^{-}	F^{--}
	Learners have very little or no control	Learners have a little control	Learners have some control	Learners have substantial control
	The selection of knowledge in discussion is almost always determined by the teacher. Learners are rarely able to disrupt the selection to suit their own needs.	The selection of knowledge in the discussion is determined by the teacher most of the time.	Learners have the opportunity to vary the selection of knowledge some of the time.	Learners often make decisions around the selection of focus and discussion in the classroom.
	Their interjections are generally dismissed or ignored or they are not seen to make any interjections.	On very few occasions is selection varied according to learner intervention or production	Some learner suggestions are accepted, or the teacher alters selection, the course of discussion according to learners' productions.	They are usually given the opportunity to determine the discussion and activity of the lesson.

What we see here is a tool that is still abstract but it has come very close to what is happening in the classroom, to the point where a beginning researcher is able to clearly recognize and pigeonhole real live activity within a cold, hard abstract matrix. But for this to work properly across the various lessons collected there has to be a careful collection of information that records the time and space co-ordinates of the lesson, its placing within a sequence of lessons, the subject, the school, the type of school, the area, etcetera, etcetera, all of which allows a returning to the sample and a reconstituting of its history. After all, what is the point of taking just any lesson to analyse? In terms of the project, it must either be grade 9 or 10, must be taken from the area around Pietermaritzburg and must range across different types of schools identified according to a complex mixture of old classifications (ex DET, ex model C) and current location within rural, urban 'township', or middle class suburb. If all of these other criteria are not carefully held in place then although we can fill the analytical matrix with information, our ability to compare across grids is seriously impaired. There needed to be compatibility and comparability across the lessons gathered as well as within the lesson analysed

With this in place the students were able to compare lessons, subjects, schools, provinces and countries, depending on the amount of data synthesized on the table and the reference to similar work done in other schools, provinces and countries. The local flavour of the lessons had now been lost and replaced with a set of abstract diagrams. The distance between the two positions seems extreme, but it is possible to retrace each small step between these acute end points until we reach the middle point where a student takes a transcript still ringing with the actual lesson and places

a wriggling part of it within a specific box in a matrix, making the actions of the lesson into a sign that will become part of a numbered code (Latour 1999). It is a split second of replacement, and it is in this finest of details that the work of post graduate research is partly done.

The students were now able to take their various lessons and place them within a comparative table, transporting the complex happenings within numerous classrooms at different times into one structured A4 piece of paper. It was on this page that the search for patterns began and was held in comparison to other patterns that emerged in other subjects, grades, schools, provinces, countries. Is this qualitative or quantitative research? Somehow this hybrid moves between these two extremes so popular in research methodology courses, for looked at from the inside it is both. Only at the end point, depending on whether the student has statistically compared a range of results or honed in on one subject or one school or one teacher can we call it quantitative or qualitative research. But what is clear is that crucial to the whole enterprise is the rule of consistency. Across the whole research community must exist an explicit set of standards that allow similarities and differences to be matched and placed, and it is this that the post graduate student must be inducted into.

The key to understanding the whole process outlined above is how reconfiguration works more through transformation than imitation. The point is not to carry slices of classroom life straight into a research paper (as useful as this occasionally is), or to try and mimic the lesson. Reconfiguration happens where each step transforms the previous one but in ways where there are explicit rules to check if the recontextualization was accurate until eventually one reaches a purely abstract rendition of specific essential and previously invisible forms. Resemblance between the final formulation of the lessons structure and the live lesson is hard to see. The first is all classification and framing percentages, the second sound and fury. As the analysis proceeds through increasing steps of abstraction it loses all that local, particular, multiple and flavoursome and gains in levels of universal comparison, calculation, compatibility and dryness.

STINCHCOMBE'S CONDITIONS OF ABSTRACTION

Behind this process of abstraction lies a basic set of conditions needed for formalization to work and we can use the above example to demonstrate what they are. Firstly the abstractions must be what Stinchcombe (2001, 21–41) calls 'cognitively adequate' and he lays out four criteria for cognitive adequacy. Firstly the abstraction must be *accurate*. It must effectively represent the area of classroom life by ensuring that the abstraction has rightly grasped the area being researched in a way that is suited to its purpose. One needs to be specific, detailed and explicit as to what the abstraction means. When exploring who has control over the selection of what is to happen in the introduction of the lesson, the rubric is very clear and precise on what exactly F++ (strong framing) means. Secondly, the abstraction must work towards cognitive *economy* where nothing unnecessary to the abstraction is included. It must

be easy to think with, simple to use. Again the above rubric shows this criteria up clearly. It would take a particularly ungifted student not to grasp what the above rubric is pointing to. The criterion of economy must not dominate over *sufficiency* – the attempt to extract all the essential elements, not only a dominant few. Finally, the *scope* of the formalization must be applicable to most of the situations it meets with in the tangible world it abstracts from.

THE EXPANSION OF BRENDA'S ACADEMIC NETWORK

At this point in Brenda's apprenticeship she had two choices, either she could compare what was happening in her subject at her school within grade 10 to other schools (a horizontal comparison) or she could track how the structure of her subject altered as it moved from national to local levels during the reform process (a vertical comparison). She chose the second option due to her involvement in provincial and district training of the reformed FET curriculum. In doing this she availed herself to all the research work (conceptual, empirical and its various hybrids) of the NRF research group. Specifically she was able to use the work of a lecturer doing doctoral research on similar area in terms of History. Unfortunately for her, Carol Bertram was still in the early stages of gathering data, so only small elements of her work were available. A similar problem presented itself with another member of staff also engaged in doctoral work that had a Bernsteinian edge in Mathematics (Dianne Parker). Furthermore, the work of Ken Harley's masters and Ph.D. students who were doing or had done Bernsteinian theses focused in on the dynamics within school life and between different kinds of schools. So Brenda began to expand her network outwards from the resources and training offered her at UKZN.

It was immediately noticeable to her that the major Bernsteinian doctoral studies she could rely on to teach her at the lower level of masters research came mainly from Cape Town. Of the six major Ph.D. theses either complete or near completion (Zain Davis, Mignonne Breier, Cheryl Reeves, Jeanne Gamble, Heidi Bolton and Ursula Hoadley) it was the last that offered her own specific project some guidance about how to proceed. Hoadley's work had been used in the first year Masters curriculum course to perform the apprenticing function, but its focus was more on the specialization of teachers. Instead Brenda turned to two of the supervisors of these Ph.D. students – Joe Muller and Paula Ensor. Both had done their Ph.D. and other original work on what Bernstein called the Pedagogic Device – a term that captured the manner in which specific systems transformed existing forms of knowledge and practice into educational shapes and structures. It was clear that in her network expanding to include the work done at the University of CapeTown she was entering into an institution that had done more work in more influential ways in terms of Bernstein than UKZN. It had produced more Bernsteinian Ph.D. students, more Bernsteinian publications and had a stronger international set of connections to Bernsteinians across the world. The reason for this is not hard to find. Basil Bernstein had visited and lectured on the campus twice and had sustained intellectual contact with both Muller and Ensor.

RANDALL COLLINS AND INTELLECTUAL NETWORKS

The work of Randall Collins on the sociology of intellectuals and interaction ritual chains (IRC's) offers a useful set of tools to help us understand how intellectual networks operate. In his massive *The sociology of philosophies: a global theory of intellectual change* Collins provides us with 'the principles that determine intellectual networks' (Collins 1998, xviii). Using a peculiar combination of Durkheim and Goffman to build a model of situational causality (Collins 2004, 9), his analysis assists the reader to move away from assuming that intellectual ideas somehow spread through the ether or are only due to the charisma of the person, their genius or their creativity. Collins points to how intellectual power is constituted, located and reproduced within complex networks and lineages that work on a micro-interactional level. Using Bernstein and the community of practice that has built itself around him, we can illustrate Brenda's induction into the network.

The personal impact of Basil Bernstein through his tangible presence in South Africa was a vital reason for his continuing influence in the country and the networks Brenda was increasingly finding out about as her research progressed. Paula Ensor encouraged Bernstein to come to South Africa in July 1994 to both present a lecture series on his work and attend the Kenton Conference. Ensor was then engaged in her own Ph.D. and was being supervised by Paul Dowling, who himself had been supervised by Bernstein. I make these genealogical points because they are crucial to understanding academic networks and their influence. It is vital for post graduate students to grasp that when selecting a supervisor they are not just engaging with a person in a dialogue but with the network of contacts this person carries as a part of his or her own intellectual past. Both Fataar and Waghid do not emphasize this point due to the nature of their own focus. The interpersonal relationship between supervisor/student must be combined with the wider intellectual network and community of practice the supervisor is implicated in. Using Bernstein and the work of Randall Collins on the nature of intellectual IRC's, we can elaborate on this underemphasized dimension of post graduate labour.

Bernstein's visit left lasting impressions and energies. Here is Ursula Hoadley's account of going to his second lecture series in Cape Town

> He was a small man with an enormous person. Very natty Armani suits, and an acerbic campy wit. At the time I was completely intimidated by the lectures. He was laying out horizontal and vertical discourse, and on the way traversing the breadth of sociological enquiry in elegant sweeps. It was exhilarating. Most of it went over my head at the time, but it felt like the real thing. Four years later I went away for a week on my own, and read volume one to volume five. That's when the insight came into the way the ideas develop over time, how the theory is built. And the elegance that emerges ... His impact has been more through his writings for me, and through those who have been close to him, especially Joe, Paula and Zain. There was something that was intuitive. The first time I read him I was energised and excited by the unity of the theory, the construction of a broad picture, pixilated by concepts that allowed one to

> go deep ... When I came to pedagogy I was drawn to the precision. There isn't really anyone else who provides the tools for principled analysis of the how and the what of the stuff that happens in classrooms (U. Hoadley, personal communication).

Hoadley then went on to produce precisely that, a principled analysis of the how and what of the stuff that happens in classrooms, the thesis Brenda used to help induct herself into a Bernsteinian research tradition. An intellectually charged experience with Bernstein was physically carried by the participant and transformed into academic endeavor.

For our particular purposes three concepts immediately present themselves as useful: interaction rituals, emotional energy and cultural capital.

An interaction ritual has four basic elements and four consequences. Two or more people are needed in some kind of tangible interaction; a boundary develops between insiders and outsiders; a common object of attention is focused on; with a common mood or emotional experience attached (Collins 2004, 48). When successful in combination these elements result in: a feeling of solidarity; emotional energy; collective symbols; and sanctions against those who violate the symbols. What distinguishes intellectual IR's from others is its abstract and generalized focus and the attention given over a sustained period to developing and justifying an argument or position that claims to get at the truth of the matter. We clearly see from the above participants' quotes that the Bernstein lectures in Cape Town generated a mutual focus of attention and shared intensification of mood. This consolidated into a shared reality that was experienced as a membrane between the situation and other situations to the point where participants committed their future research work to what had opened out within its space. Bernstein's work has coalesced into precise symbols that carry the identity of the group and have the power when used to reinvoke the community. At its most abstract level the symbolic formula that carries this effect for Bernsteinians is the esoteric

$$\frac{E}{C+-(i\backslash e),\ F+-(i\backslash e).}$$

But at its most tangible level it was the Bernstein seminars held in Cape Town during 1994 and 1997 that began the process. These central meeting points have continued through Bernstein conferences. In 2002, the second international Bernstein conference was held in Cape Town, where international Bernsteinians intersected with their local counterparts. These conferences are held every second year in different countries (Lisbon 2000, Cape Town 2002, Cambridge 2004, New York 2006) that have strong internal Bernsteinian communities. These IR's are also sustained on a daily basis through email contact, doctoral and masters supervision, externalling, research projects, seminars and publishing ventures (and on a nightly basis, in various assorted pubs and restaurants where current and future debates as well as reminiscences of past

events are carried through). It is partly through interaction ritual chains that we can begin to understand how the Bernsteinian community acts as a player on the South African intellectual stage for it is through these local encounters that we understand how macro intellectual effects are generated. There is an 'ecology of human bodies coming together and moving apart across a landscape' (Collins, 1998, 23) that provides us with a picture of how the Bernsteinian community in South Africa functions as a 'pocket of solidarity' (Collins 2004, 15) rather than some esoteric force mysteriously carried through his work. It is such communities that we as supervisors must both be intimately involved in and induct our post graduate students into.

Emotional energy was clearly something that Bernstein imparted to those who met him. Emotional energy is the feeling of exhilaration, achievement and enthusiasm generated by successful participation in an interaction ritual. It results in creativity and initiative, which, when successful, generates more emotional energy. This partly had to do with Bernstein's personal charm and intelligence but it carries through rewarding involvement in interaction rituals in specific places. Bernsteinian research has a far stronger presence in Cape Town than in KwaZulu Natal as Brenda quickly discovered and this partly has to do with the amount of successful interaction rituals around Bernstein that occurred in Cape Town and the current emotional energy that resides there with those who directly intersected with Bernstein himself. It is a complicated type of energy that is hard to pin down but it is vital to sustaining a community, even if those caught in its functioning wish to deny its import. Its force should not be underestimated, for as Collins points out, we are all 'emotional energy seekers' on certain levels (Collins 2004, 373). Although Brenda had not met Bernstein, Muller or Ensor, she had read their work and listened to accounts of what they were like from seminars and from her supervisor. The closest she got to the Cape Town circle was through a circulated email in which she praised the Ph.D. work of Hoadley and was very pleased to hear that Hoadley was flattered by her comments. Such small interactions and bursts of emotional energy are vital to a student's research, even if they are in the outer circles of purgatory. However, the emotional energy generated from Brenda's peripheral contact cannot carry comparison to those who had first hand contact both with Bernstein and his most influential students. By being located at UKZN and having me as her supervisor, she was automatically at a second remove from genealogical contact and the emotional energy it carried.

Collins' theory of emotional energy does pin down a vital force running through intellectual communities, but it does not come close to the subtlety of Fataar and Waghid's accounts of the complex energies surrounding post graduate academic apprenticeship. Furthermore, both Fataar and Waghid had brought out the difficult South African dynamics operating at this level, a dynamic that 'emotional energy' as a construct has no grasp over. So as useful as Collins, Stinchcombe and Latour are in terms of adding another dimension to Fataar and Waghid's work, a similar point can be made the other way round.

At this stage in her academic life, Brenda's cultural capital in terms of the Bernsteinian community was small. Cultural capital, according to Collins, is what a person gains as she moves through a set of encounters with other people and their texts:

> As individuals move through this grid of encounters, they generate their own ... interaction ritual chains. Each person acquires a personal repertoire of symbols loaded with membership significance. Depending of the degree of cosmopolitanism and social density of the group situations to which they have been exposed, they will have a symbolic repertoire of varying degrees of ... generalized and particularized contents. This constitutes their cultural capital (Collins 1998, 29).

They develop their own interaction ritual chains that provide them with an individual set of contacts and symbols. The contacts are as important as the symbols, for it is in people intersecting with each other that both emotional energy and the complex and intuitive aspects hidden behind actual texts comes out, as well as hunches about future directions and discussions about the latest research tools. Within the Bernstein community of South Africa some individuals dominate attention because of the extent and power of their cultural capital and emotional energy. It results in a stratified intellectual community with various roles willingly taken on or settled for (Collins 1998, 37–40). Certain individuals not only have been in direct contact with Bernstein and benefited from his direct attention, but are also at the forefront of the current community. This can be seen from the papers they have published in leading international and local journals, their direct contact and collaborations with leading international Bernsteinians, the place they are allocated at conferences and most crucially, their ability to guide what form future research agendas are going to take. There is a distinct division of labor between those who ask the questions and set out what problematics are currently interesting and those who answer the questions and carry out the solutions. At conferences it is those who are posing generative problems who carry the most prestige, not those functionally carrying out and elaborating on the community's research instructions.

The contrast can be starkly seen if one compares the work of Brenda to that of Joe Muller, clearly recognized as one of the leaders of the Bernsteinian community both locally and internationally. Brenda took already existing rubrics and applied them to a local situation, using tools she had been given to make sense of her specific research area. Working with what was already established knowledge and practice within the Bernsteinian community she replicated what has been done in her own locality. She did make certain interesting moves of her own but the value of her work lies in additional example not new paths forward. Muller, on the other hand, works on the parts of Bernstein's corpus that are undeveloped and problematic, suggesting both new routes forward and substantial revisions of accepted orthodoxy, making new discoveries and generating new problematics vital to an intellectual communities continued thriving. He might have started out by adding to what Bernstein has already

said, but this has quickly morphed into a pushing of the boundaries of Bernstein's work rather than remaining within scholastic commentary. It is this that gives him copious amounts of emotional energy and cultural capital within the community. As Collins points out, it is those who have a feeling for where the next action will be, not those solving an existing problem who have the most cultural capital and emotional energy (Collins 1998, 32). Posing fruitful and generative questions provides space for others to do their own work within, precisely for beginning scholars like Brenda. But she is still able to follow what the latest developments are through early drafts of future conference papers, snippets of email conversation, Ph.D. developments and conversations with those in contact with Muller, Ensor and other leading Bernsteinians. What it does mean is that mastering Bernstein's work does not in anyway guarantee a powerful academic future, for she is working as an apprentice in a space given for followers, not asking questions that need answering. Nor is she doing her research within an academic environment particularly conducive to Bernsteinian theory. Paula Ensor is currently Dean of Humanities at the University of Cape Town, Joe Muller deputy Dean of Research and Post Graduate affairs and Bernsteinian seminars are held on a monthly basis. There is no such equivalent at UKZN.

So it is not surprising that it was to the work of Muller and Ensor that Brenda turned her attention to. Although some of their work was already out in the public terrain, much of it was either in press or still in development, with one of the major sources of both being the recent Basil Bernstein Symposiums. The Cambridge Symposium (2004) had occurred half way through the first year of her Masters. All the papers submitted for the conference were on the web and it was here that she found the key papers that helped her elaborate how to go about her research. She was helped by her supervisor who had gone to the conference and could provide her with blow by blow accounts of what had happened in the presentations and what the key new issues and debates were. Her understanding of what a research community was had now expanded out from the six other students working on the NRF project, the lecturers involved in the project at UKZN to the doctoral students at UCT and Wits, to the key Bernsteinians in South Africa to the important players on the international scene.

Enchanted by this thriving research community she began to both reread the work of Basil Bernstein she had been introduced to at the beginning of her Masters and to search the internet for more information. It was here that she stumbled on the work of Dowling, specifically an unpublished paper of his on Framing (Dowling 1999). Although his work had been dealt with in the Curriculum course, she had not been ready for what it contained: a powerful attack on the work of Bernstein from an ex student turned heretic. It opened her out to an uglier and more juicy side of the work of intellectuals, where apprentices eventually challenge their masters and the masters do not step meekly aside the way that Virgil did for Dante in the *Purgatorio.* This sensitivity was heightened by Michelson's critique of the work of Muller that had appeared in the *Journal of Education* (Michelson 2004). His work, along with

Ensor's, had been of particular usefulness to her. The heroes she had been using to structure her work both locally and internationally were enmeshed in battles of their own, their work attacked on grounds of being incoherent, esoteric, conservative, vicious and embittered. The community of research she had innocently joined was hemmed in on all sides by enemies pointing out all sorts of problems and issues. What she had not known was that whole university departments despised Bernstein, that research organizations like the HSRC were divided on his usefulness, that Bernstein's work had attracted controversy and critique since the 1970's and that this had not abated. Having been introduced to Bernstein from the internal workings of research communities structured around his work, this opening out to a set of massive critical debates helped her to see more clearly what was at stake in his work and how to start to think more independently and critically about her own research work.

Enemies are clear to the eye, far harder to work through are the various alliance partners to the Bernsteinian project. Brenda had initially been interested in a genre analysis of the grade 10 English syllabus using the work of Halliday and the Systemic Functional Grammarians (SFG). It was only the already functioning nature of the NRF FET research programme at UKZN that twisted her away from this interest. But when attending workshops by David Rose on how to teach literacy she noticed that his work consisted of a synthesis between the unholy white, mostly dead, male trinity of Halliday, Vygotsky and Bernstein. It was not only Bernstein's enemies that she had to come to terms with, but those whose work was being used in conjunction with his. This is a far more difficult set of networks to negotiate than enemies as the line between the two has to be identified, negotiated, altered and crossed, rather than a simple standing across a divide and shouting at each other. Here the work of each and all has to be mastered and then synthesized in such a way as to produce deeper and more effective research programmes. SFG helped the Bernsteinians get into the finer details of how language and power worked in education. Vygotsky and the Activity theorists helped the Bernsteinians get into the inner working of cultural intersections. These intersections were beyond her current focus and she had to leave these creative new developments to those who had already mastered at least one of the three fields. Here again, a contrast with the work of Muller reveals the difference. His current collaborations are precisely with the leading SFG proponents in Australia and the thinking through of the fertile links between the two communities. This does not mean that Muller is reading their earlier work in the library as Brenda did, it means he is visiting them in Australia, they are visiting him in Cape Town and together they are publishing the fruits of their collaborations (Christie and Martin 2007).

But these were not the only alliances Bernsteinians in South Africa were engaged in. Other alliances were between different types of organizations. In Cape Town, Muller was part of a slightly holier trinity with Nick Taylor and Penny Vinjevold. Taylor runs one of the biggest research organizations in South Africa (JET) and Vinjevold is currently the deputy director of further education and training in South Africa. This was a crucial network as it articulated across different types of institutions, private, governmental and academic (Fataar 2006). Both had met Bernstein before. It meant

that the insights of Bernstein's work carried into different levels of the South African Educational system. Utilizing the extensive research gathered through JET and the professional insight into the workings of the educational system that Vinjevold was privy to, Nick Taylor, Penny Vinjevold and Joe Muller (1999, 2003) were able to launch a powerful attack on the principles behind the C2005 reform as well as its failed implementation and dire consequences for underprivileged learners.

Massively as Bernstein's work looms on South Africa's educational horizon, for many research communities he is but one small dimension of their work. For example the well established mathematics education research community in South Africa has picked up strongly on the work of Bernstein, but his contribution is one of many others (Vithal, Adler and Keitel 2005). Other research communities find the work of Bernstein helpful as an organizing device but quickly have to turn to other theorists for more specific and focused tools. For example, the Quantum project directed by Jill Adler found out early in its development that Bernstein could only carry them so far before they had to devise finer instruments.

Closer to home, Brenda's own supervisor was working on his own particular project that intersected with Bernstein's Pedagogic Device, using Hierarchical Network Theory to construct an analytical device that would help trace how a message reconfigured itself according to specific principles as it moved through the Educational System from macro to micro and from conception to implementation as well as flexibly track the inner workings of pedagogy. She used some of his work to help her think through her research. This was a risky move on her part, for unlike the other coalition groupings that had burgeoning research communities and influential networks of their own, hierarchical analysis was still in its fetal stages, with hardly any links or publications to carry its message. When coming to the stage of finding an external examiner she was risking having to rely on someone not familiar with what hierarchical analysis was and placing her research under doubt. Nevertheless she pushed forward and submitted her thesis called: *A Bernsteinian description of the recontextualising process of the National Curriculum Statement from conceptualisation to realisation in the classroom.* It had taken her just over two years to produce the thesis but her work relied both on research done over a forty year period and current developments that were not even in press yet. Her research focused in on a small district in KwaZulu Natal but had traveled through various South African and international universities and research communities to construct its case. Her research community consisted of six other students engaged in the NRF project and her supervisor, but she had virtually met the whole Bernstein community as well as its enemies and alliance partners, using them all to gain clarity on what her research was and why it was relevant. Her own work, although only just complete will be used in the NRF project, has already become a part of this paper, and has been used, along with other masters students' work, to produce papers on the implementation of the FET reform process that will articulate with work done at UCT on the same area.

This positive gloss should not obscure the fact that even though her network had expanded outwards, it had been mostly virtual, through email, websites and

electronic papers. Her actual contact with the community was minimal. Some kind of embodied interaction is vital to the continued strength of her emotional energy and cultural capital. The impact of virtual technologies on new forms of embodiment is a complex point and it deserves more research. How far can virtual technologies carry the embodied interactions of the Bernstein community to Brenda and visa versa? Collins thinks that virtuality will not carry our bodies very far and thus stresses actual physical interaction (Collins 2004, 53–64). I suspect that a younger generation will disagree. Secondly, the *lineage* she was working within was not a highly respectable one. Collins points out that the

> most notable philosophers are not organizational isolates but members of chains of teachers and students who are themselves known philosophers and/or of circles of significant contemporary intellectuals (Collins 1998, 65).

Hoadley, Davis, Breier, Gamble, Reeves and Bolton were working with a lineage that went upwards from Ensor and Muller to Dowling and Bernstein. Their 'grandparents' were impressive. Brenda's supervisor had no such links, nor had she thought it important to try and select a supervisor with such links. It is a peculiar thing, to think of your supervisor in terms of lineage, of who s/he was taught by, but such factors are important considerations, especially at a Ph.D. level. This points to a common misconception that what an intellectual does is hibernate off to some wooden cabin for ten years to write a masterpiece. It is not what research into intellectual communities such as Collins reveals. Successful intellectuals are engaged with life, implicated into vital networks and lineages, and work within a community of teachers and students, peers, subordinates, superiors, colleagues, friends and partners, full of emotional energy and cultural capital.

CONCLUSION

Post graduate supervision and teaching within South Africa is a complex event that has recently received useful, personalized but still theorized accounts of what it entails. Fataar and Waghid have provided us with detailed insights into the intersubjective and dialogical nature of the interaction within a South African educational landscape that demands forgiveness, friendship and imagination. As vital as these dimensions are, they need to be supplemented by the intellectual networks and communities of practice that inform the research process along with the intellectual tools and processes of abstraction that accompany such endeavors. By providing an exemplar of how a masters student enters an intellectual community and is apprenticed into what it means to be a researcher this article attempts to demonstrate how this induction works. It is certainly not only the Bernstein community that completes this mission successfully, or the only way it can be done, but hopefully the exemplar shows up some of the complex issues and conditions needed for such an apprenticeship as well as some of the principles by which an intellectual community operates.

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