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Rulers of consciousness: the university and the Pedagogic Device

Academic biographies

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Abstract

Over the last five years we have been engaged with a highly theorized research project in South African curriculum reform that created an abstract holding space where very different communities, interest groups and specialist players engaged in the process of curriculum reform were placed together. Theoretical and empirical research within the esoteric space of university practice constructed a playing field where all the major contributors to curriculum reform, ranging from those involved in conceptualization to those directly working on implementation, could come together under an overarching conceptual educational form called the Pedagogic Device. It was a curious space – the different strata worked with various and sometimes conflicting logics, each concentrating on fulfilling their own mandate, often not lifting their heads to see what those above and below them were doing. Using the Pedagogic Device as an orienting tool we were able to walk through the post apartheid educational terrain, interviewing and gathering data at the different levels, tracking how complex knowledge forms produced in the most esoteric of spaces slowly transformed into morsels learners at school could digest. Each level engaged in this transformation had its own peculiar freedoms and constraints, opening out possibilities for challenge, even transmutation. The metamorphosis we were tracing held enormous power. Any group in control of the whole device would have a ruler of

consciousness determining the ideas entering children's minds, packaging, structuring, measuring, and testing its impact. Such overarching control was not evident in our study, each level had enough freedom to work their own logics, resulting in a curious and distinctly unsatisfactory hybrid within the final sanctum of the classroom. The study set in motion a set of critical debates and engagements within the university, forcing us as teacher educators to engage with what we were doing at a university level within a context of poverty in post apartheid South Africa. It also set in motion key engagements with national and provincial governmental structures over what interventions are needed to improve the quality of education within the province we are located in – KwaZulu-Natal (KZN), South Africa.

Key words: pedagogic device, field of production, official recontextualizing field, pedagogic recontextualizing field, history, reproduction of inequality, university, South Africa

Introduction

The paper begins with a brief account of Bernstein's 'Pedagogic Device', a theorization of how knowledge forms are recontextualised within the educational system to a point where they are understandable to young learners within the classroom. The secondary school subject of History is the focus in this case. In tracing this recontextualisation, the theoretical framework shifts levels, which range from university knowledge production to national department curriculum initiatives through to textbook production, provincial and district training programmes and finally through to the chalk face of History classrooms in selected schools. The paper then engages with the critical spaces that are opened out at the different levels of the Pedagogic Device. Initially this was conceived as the possibilities for debate and movement open within and between each level, but as we progressed with the research, we became increasingly critical of how the Pedagogic Device was functioning as a whole within a Post Apartheid context dealing with impoverishment and exploitation. Issues of social justice came increasingly

to the fore as we confronted the enormity of the educational task facing South Africa and our own role within it.

Background to the study

The university study under discussion tracked the changes in the South African high school curriculum during 2005 and 2006 (which is the year that the new curriculum was implemented in Grade 10 classrooms). The study drew on the Pedagogic Device as both a theoretical frame and an ordering mechanism. The data collected ranged across the fields of the Pedagogic Device. It included interviews with six members of the subject writing team who wrote the curriculum, and with publishers and writers of textbooks produced by three key publishing houses in South Africa. The official curriculum and assessment documents were analysed. There was participant observation of a four-day training workshop offered to History teachers the year before implementation of the new curriculum. Finally, three purposively sampled teachers, from three differently resourced high schools in KZN were studied. Each teacher was interviewed and a series of five Grade 10 History lessons were videotaped in both 2005 and 2006. Samples of learners' assessment tasks and test and examination papers were collected in both years. Similar studies were done in English and Science. This paper highlights some key aspects and findings of the research, but not in detail as this has been done elsewhere (Bertram 2008, 2009). Rather the focus in this paper is a critical engagement with the possibilities and limits of the Pedagogic Device as it frames both the research process and the conversations that emerge from the research.

Theoretical framework: Bernstein's Pedagogic Device

What is the Pedagogic Device and how was it used to frame our study tracking curriculum change and recontextualisation within the South African high school History curriculum? Two metaphors will help point to the power of this concept contained within the very abstract later writings of Bernstein. It will also provide the metaphoric conceit of this paper. When Dante walked through hell, purgatory and heaven he needed a guide and surprisingly found one in the classical Virgil. We found a similar guide in Bernstein when attempting to systematically walk through the full reach of the educational system. He knew what the various levels were, what their essential logics were, who would be encountered, what to look out for, and what the essential transition points were. The Pedagogic Device did this and more, it was something like a philosopher's stone, a transformative apparatus that traced how sacred knowledge transmuted into profane realizations and *vice versa*. It tracked metamorphosis.

The question posed by Bernstein is: are there any general principles underlying the transformation of knowledge into pedagogic communication? (1996, p. 39) Bernstein uses the term 'Pedagogic Device' to refer to systemic and institutionalised ways in which knowledge is recontextualised from the field of knowledge production into the school system and its distribution and evaluation within the schooling system (Jacklin, 2004, p. 28). The Pedagogic Device does not focus on the nature of the message but on the medium the message is carried in and how it is transformed and transmitted. To use an analogy with television, the focus is not on the actual content of the programme but the processes gone through in order to produce and relay a programme from its commissioning, scripting, acting, editing, production,

transmission to its reception. In a similar way Bernstein makes a distinction between the Pedagogic Device and pedagogic discourse and their practices. The distinction is a distinction between a relay and what is relayed, or as McLuhan would have it, between the medium and the message. The nature of the relay is crucial as it is what carries the message in a certain form. Television as a relay has had an enormous impact on society, as has radio, or the printing press. Often the focus is on what is printed, what is on television, or what is on the radio, but this can mean a loss of focus of the impact of the medium in its own terms, of what television, radio, books actually do to us, of how these media format us in particular ways. Bernstein, by focusing on the Pedagogic Device, was pointing to the nature and workings of a pedagogic medium that transforms and carries a message from where it was produced, through its transformations into more understandable forms, and finally into the actual teaching and evaluation of this simplified knowledge form.

The reasons behind him undertaking this theoretical labour revolved around the intuition that certain classes were either privileged or discriminated against through the manner in which knowledge was transformed into a pedagogic message. At the heart of the device rests a radical critique of how the educational system reproduces inequality, only, unlike Althusser's Ideological State Apparatus and Bourdieu's Cultural Capital and Habitus, the device went into the machinery of education to unlock how it worked inside its various levels. For Bernstein the question was how to use the Pedagogic Device to advantage those most discriminated against within society. What kinds of transformations of esoteric knowledge into classroom lessons would best suit working class learners, not only in terms of content

but crucially in terms of how the messages were carried, structured, taught and assessed?

The device consists of three rules which give rise to three respective arenas containing agents with positions/ practices seeking domination (Bernstein & Solomon, 1999). The Pedagogic Device is the site of struggle, for the 'group who appropriates the device has access to a ruler and distributor of consciousness, identity and desire' (Ibid., p. 269). Symbolic control is materialized through the Pedagogic Device, enabling power over consciousness though shaping the message and measuring legitimacy of the realisations of consciousness (Bernstein, 2000, p. 114).

At each level of the Pedagogic Device there are different ways in which History is ordered and organized. Bernstein called this the grammar of the Pedagogic Device and argued that it consisted of three interrelated and hierarchically organized rules: distributive rules, recontextualising rules and evaluative rules (Bernstein, 2000, p. 114). These rules are hierarchically related in the sense that the recontextualising rules are derived from the distributive rules and the evaluative rules are derived from the recontextualising rules (Bernstein, 1996, p. 42). The rules are in turn linked to fields or zones where the action happens. The distributive rule is linked to the field of the production of discourse, the recontextualising rule to the recontextualising field and the evaluative rule to the field of reproduction. Simply put, there first has to be a production of knowledge within highly specialized zones, these esoteric forms of research then need to be simplified into a digestible and organized curricula understandable to neophytes, and finally this curriculum needs to be taught and assessed.

Figure 1 The Pedagogic Device and the study of recontextualisation of the History curriculum (adapted from Bernstein, 2000, p. 116)

Rules	Fields	Processes	This study
Distributive	Production of discourse Where the production of new knowledge may legitimately take place.	Creation of knowledge/ discourse	The creation of historical knowledge/ discourse, usually by university historians
Recontextualising	Official recontextualising field (ORF) The state and its selected ministries and agents	Transmission of knowledge/ discourse	The knowledge/ discourse created in the field of production is recontextualised by the state and its selected agents into a formal History curriculum for schools.
	Pedagogic recontextualising field (PRF) Teacher trainers in colleges and university departments of education, specialised journals, private research foundations and writers of textbooks and curriculum guides.		The History curriculum is recontextualised by teacher trainers (both in the department of education and in universities) as it is explained to History teachers in training workshops. The curriculum is also recontextualised by textbook writers.
Evaluative	Reproduction Regulates the pedagogic practice at the classroom level	Acquisition of knowledge	Teachers recontextualise the curriculum in their classrooms in terms of pedagogic and assessment practice.

Producing Historians

The function of the distributive rule is to explore processes involved in the actual production of specialized knowledge. It is not about some genius producing masterpieces in a hut on the mountainside, but about the complex communities of practice engaged in the process of developing knowledge beyond the already known and understood. Distributive rules specialize forms of knowledge, forms of consciousness and forms of practice to social groups. Distributive rules distinguish between two different classes of knowledge – the esoteric and mundane, the unthinkable and the thinkable, the sacred and the profane. The line between these two classes of knowledge is relative in any given period. In modern society, the control of the unthinkable rests with the upper reaches of the educational system, for example, research- driven universities. “This does not mean that the unthinkable cannot take place outside the educational system, but the major control and management of the unthinkable is carried out by the higher agencies of education. The thinkable is managed by secondary and primary school systems” (Bernstein, 1996, p. 43). In effect, our research project tracked how the unthinkable has been made thinkable through the educational system.

Key concerns in the field of production revolve around the structure and the nature of the discipline of History in its own specialist terms. This involves historians coming to terms with what they do, how they do it and why. New research using new tools on an ever growing archive of sources opens out a fertile and contested horizon that combines old and new in productive ways. What is to be considered as worthwhile ‘History’ has to be separated from what is ‘not History’, and this is a difficult and contentious line to draw, especially as it is the experts themselves

engaged in the struggle. It is a space inimical to school History as it involves debates that already assume a lifetime specializing in the field and can only be properly understood by the already apprenticed and inducted. For example, the well known and told tale of the industrial revolution as replicated in schools across the world is continuously under massive critical review by historians. New evidence, new techniques, new questions, new controversies ebb and flow through this area, so large now that it has major sub fields continuously expanding out of it. To present the intricacies of debate within this area to school children would be to fundamentally not understand the functioning of the Pedagogic Device and how it appropriates History for pedagogic, educational, cultural and national reasons. The point is that no matter what these national and cultural trends are, History as an esoteric field happens partly within its own operating logic, it happens on History grounds, with an internal rigour based on what it is Historians do. Key to working with historical evidence is developing a tacitly acquired ‘gaze’, which means that historians learn how to ‘recognise, regard, realise and evaluate legitimately the phenomena of concern’ (Bernstein, 1996, p. 170). Developing a historical gaze means to acquire both procedural and substantive history knowledge (Schwab 1978). Historical knowledge comprises both a set of factual claims as well as an understanding of how those claims have been constructed (Seixas 1999). This comes with an apprenticeship into historical research, a deep immersion in the archive, and the active pain of translating these empirical findings into a coherent historical form.

Imaginary Historians

It was curious to find within the recontextualising and reproduction fields of the Pedagogic Device an insistence that school children imitate historians,

working with and interrogating sources. This is the most specialized and difficult of tasks, taking many years of induction before it becomes vaguely possible to do properly. Learners were not expected to become Historians – that would be impossible – but to be like them within a school setting, using their insights and skills (Department of Education, 2003, p. 10). In South African classrooms we found the strangest forms of mimicry, with pretend sources being used to produce pretend interpretations that were actually rote learnt parts of the syllabus attached tangentially to pictures, cartoons and writings. Even worse, we also found the sources being used as comprehension exercises with learners merely expected to restate what was already contained in the source. The ability to work with enquiry and evidence based approaches in History classrooms seemed to decrease as we moved from historically White and Indian schools to historically Black schools. We cannot strongly generalize from our limited study in three schools, but it does seem apparent that using resource rich complex pedagogies based on evidence and enquiry within resource poor schools that have poorly educated teachers is a guaranteed way to ensure failure. Bernstein's Pedagogic Device opened out for us the continuing reproduction of inequality in Post Apartheid South Africa (Bertram and Hugo, 2008).

The irony was that in the mimicry History as a school discipline was lost. In one task learners from a middle class school were asked to write an empathy response. Learners who included detailed historical facts in their narratives did not score as well as those who wrote flowery emotional responses with hardly any History content. The legitimate text for the production of school History had shifted. As travelers through the Pedagogic Device we watched with some astonishment as this unfolded before us. The

difference in what a historian did with a source in comparison to what a learner did with it were extreme, what concerned us was that in the imitation all resemblance had been lost. The golden chain holding History together through all its transformations as it went from esoteric production to classroom reproduction had been doubly broken at the classroom level with impoverished learners unable to work with the complex resource rich pedagogy and middle class learners passing with comprehension and creative writing skills rather than school History knowledge. Neither was provided access to History as a knowledge structure or discipline. As Dante became increasingly critical of the representatives and workings of the Catholic Church as he moved through the *Inferno*, so became we of the educational system in Post Apartheid South Africa. The problem was that we were not only travelers through the landscape, we were partially responsible for its outline.

Recontextualising History

However brilliant or dangerous this space of the 'yet to be thought' is, as soon as it is articulated it enters into the realm of recontextualisation and this recontextualisation stretches all the way down from the initial articulation of the research through to its final appearance as a topic in a school's curriculum. Pedagogic discourse is a transformation device that continually adapts the new knowledge into forms more digestible within different contexts. The different contexts play a major role in how the knowledge form is picked up and worked with. Whole new social and moral orders are entered into with very different requirements and demands. For example, a post graduate research institution will have a very different social, political and moral order to that of a high school, and inescapably, the different context will play a massive role in how the knowledge

is recontextualised. The regulative order a knowledge form finds itself within will format the knowledge form to suit its peculiar demands.

Put formally, pedagogic discourse is a principle for the circulation and reordering of discourses. In the process of de-locating a discourse, (that is, taking a discourse from its original site of effectiveness and moving it to a pedagogic site), a gap or rather a space is created. As the discourse moves from its original site to its new positioning as pedagogic discourse, a transformation takes place. The transformation takes place because every time a discourse moves from one position to another, there is a space in which ideology can play (Bernstein, 1996, p. 47). This continuously opens out potential dialogic spaces.

At this point we notice that there are already two key spaces where a discursive gap opens out within the Pedagogic Device: the first in the actual production of knowledge where a break occurs between what is already known and what is new, the second in the re-articulation of knowledge within a more pedagogic environment. Here the space for debate and critical reflection revolves around how to transform esoteric knowledge into something that works inside schools for kids, of how much actual knowledge and practices should be kept sacrosanct (to enable entry for those who choose to specialize) and how much should be transformed into knowledge for everyone (based on an educated citizenry). This is a complex area, radically open to contestation as a negotiated balance has to be struck between the logic of the esoteric discourse in its own right and the demands of recontextualisation. Bernstein is clear that a recontextualising logic cannot base itself purely on the logic of the specialist discourse in its own terms (1996, p. 49). Using the example of children doing woodwork at school, he says that a real discourse

called carpentry is transformed into an imaginary discourse called woodwork at school. Using the example of physics, Bernstein (1996, p. 48, 49) argues that as the discipline is appropriated by the recontextualising agents, it is no longer derived from the intrinsic logic of that specialised discourse. The recontextualising agents make a selection as to how school physics will be sequenced and paced, and how it will be related to other subjects. Both Muller (2007) and Dowling (2007) have argued that the logic of the initial esoteric discourse must still have some influence on its recontextualised form. There must be a golden chain between school knowledge, university knowledge and the field of production. Different contexts at the different levels work their metamorphosis, the art is not to break the link in the transformation. Just so the learners engaging with History sources work an imaginary discourse at school level that has been recontextualized from how historians work with sources in the archive. The issue was that this recontextualization of esoteric History into classroom History had lost coherence in the transformation. Even worse, we felt from our classroom observations that it was actively discriminating against learners from impoverished backgrounds.

Bernstein distinguishes between an official recontextualising field (ORF) created and dominated by the state and its selected ministries and agents, and a pedagogic recontextualising field (PRF), in which the agents are teacher educators and textbook writers. Curriculum documents are designed in the official recontextualising field (ORF) and represent the official texts elaborated by the Ministry of Education (an agency of the ORF) (Morais, Neves, & Fontinhas, 1999). This arena is directly tied to the state and the struggles that inform it. As new governments or political parties come into power the nature of the

curriculum and the way it is taught come under review and revision, creating a key field of contestation and debate. As teacher educators within the PRF we partly have to follow the dictates of curriculum policy as formulated in the ORF and this had been particularly controversial and subject to change over the fifteen or so years since the collapse of Apartheid.

Chisholm (2005) and Fataar (2006) have described three iterations or waves of curriculum policy in South Africa since 1994. The first phase of post-apartheid curriculum reform was to cleanse these syllabi of any clearly sexist and racist content, to eliminate inaccuracies in subject content and to establish a common core curriculum (Jansen, 1999). The second phase was the process that produced Curriculum 2005 (C2005) a curriculum for Grades 0 - 9, between 1995 and mid 1997. C2005 was outcomes-based, and underpinned by the principles of integrated knowledge and progressive pedagogy. In C2005, History was incorporated into the Learning Area called Human and Social Science (Seleti, 1997). There was no clear content specified, only learning outcomes that learners were supposed to reach. It was a radically democratic curriculum for a newly democratic country, with teachers and learners freed to make their own paths through to rather general outcomes. The essential idea was that South Africa had learners from radically different contexts, all of whom should be allowed to construct their own learning paths towards the same general outcome. Each context should be allowed to bring its own particular flavour to the mix, enabling learners to work from where they were towards the set outcome. It was hastily implemented and unevenly received by teachers in differently- resourced schools (Harley and Wedekind, 2004).

This gave rise to the third phase of curriculum reform which was a Ministerial review of C2005. This process led to the revision of C2005 and the writing of the Revised National Curriculum Statements (RNCS) for the General Education and Training (GET) band which is Grade 0 - 9. In the RNCS, History 'reappeared' with its own specific outcomes, together with geography in a learning area called Social Science. Content was more clearly specified than it had been in C2005 (Chisholm 2005). Thus the writers of the History curriculum for the Further Education and Training (FET) phase (Grades 10 -12) were working against a backdrop of intense curriculum change. As teacher educators attempting to train teachers to work within this ever changing context of curriculum reform we had to ensure that students were equipped to deal with these complex transformations whilst at the same time specializing them as teachers.

The curriculum writers were working from a history of enormous criticism of the apartheid History curriculum, which had promoted a strong Afrikaner national narrative (Chisholm 1981). Rather than creating a new Africanist national narrative the purpose became one of developing learners who can analyse sources and evidence, study different interpretation and thus think in a rigorous and critical manner about society (Department of Education 2003, p. 10). The curriculum is underpinned by a 'History as enquiry' approach with a strong focus on critical engagement with sources. Such an approach did have a nascent tradition within some 'white' and 'Indian' high schools using source and evidence based pedagogies. Certain textbook writers from the liberal white universities in the 1980s had also produced a textbook series (History Alive) that worked with evidence and source based pedagogies.

The problem was that this resource rich enquiry approach was to be implemented across the whole of South Africa, not just white and Indian schools but resource poor schools with badly trained teachers in impoverished communities. This was not an issue foregrounded by the writers. Their concern was the History curriculum. They understood that it was not an easy curriculum for all teachers to work with and that there was probably too much content, but essentially its implementation within a developing context was not their concern. Textbook publishers were equally uncritical of the reform process. Their concern was to ensure they fulfilled departmental requirements so that their textbooks got on the official list from which schools purchased their textbooks. But it was ours, and increasingly so as we became aware of the social justice implications of attempting to implement a curriculum that would directly and negatively impact on already discriminated against learners. The research tour we had taken through the Pedagogic Device was generating critical effects, the issue was how we could use the space of the University to critically engage with the various role players within the Machine.

As actors in the PRF it was clear that we could have an effect on pedagogic discourse independently of the ORF. Rather than being implementers of already existing policy we could challenge its structures and produce teachers who are critical of the existing state of affairs. There is autonomy and struggle over pedagogic discourse and its practices all the way through the Pedagogic Device, the point is to know the levels of mobilization and what to do within them. Furthermore, university faculties of education play key roles across the Device. It is their staff members doing the esoteric research in the field of production, their staff members involved on national curriculum committees and textbook teams, their

staff members training both in-service and pre-service teachers, their staff doing independent research on education. The University is not only a place that can theorize the Pedagogic Device but it provides many of the personnel throughout the device. The potential for engagement from the University is enormous - certainly from our university there was. We would like to outline five levels of engagement undertaken to increase levels of debate and critique as well as active measures to change the manner in which the Pedagogic Device was functioning in KZN.

University Engagement with the Pedagogic Device

The first was to ensure that our research spread into other parts of the Pedagogic Device. We tendered for a National Treasury Project that wanted to know why so much money was being spent on education in KZN without tangible results. Essentially the Treasury wanted to know what could be done to improve the functioning of the ORF at provincial, district, circuit and school level. We already had a good idea of what some of the possible reasons were from our research and could put together a coherent account of how education worked from national structures down to provincial and district levels, along with the various key players already mentioned above. Many of the departmental officials were students of ours, as were many of the principals, heads of department and teachers. Each could be tasked to research their particular role within the Pedagogic Device and a composite picture built. Crucially this provided a focus point for much of the research energies of our school. The Pedagogic Device offers an overarching theory that enables the co-ordination of many different research projects under one broad thrust. More than this, we were not the only critical community within the Pedagogic Device, there was

dissatisfaction across the board, from National levels down to the classroom teacher. The trick was to ensure that the highly theoretical framework used for our research was rearticulated into simple and clear policy and planning speak useful for those more practically minded than us and that we were doing the empirical research to back up the theory.

The second level of engagement has been directly with our own curriculum at university level. Entering into poor rural and peri-urban classrooms highlighted for us how middle class our own teaching assumptions were, of how our pedagogy and content was designed with a middle class teacher and learner in mind. The basic insight that evidence and source based pedagogies were almost impossible to implement in resource poor schools with badly trained teachers held for our own practices. The research turned a spot light onto our own teaching practices and assumptions. We are beginning a process of curriculum review where we ask what is it that education in a developing context demands, rather than what we wish it could be. The reality of watching a learner who can hardly read or write in either their mother tongue or English, who has not had much opportunity to learn, whose History content knowledge is very poor, attempting to engage with a source and make meaning in a noisy overcrowded classroom, is to realize that a pedagogy for the poor is very different to a pedagogy for the advantaged (Abadzi 2005). It is to recognize that teacher education in KZN has to work with the reality of discrimination and impoverishment rather than with the comforts of progressive pedagogy in already advantaged classrooms with well educated children from resource rich home backgrounds working in their home language. This entails a radical stripping down to basics both in terms of content and pedagogy.

The third level of engagement is directly with structure of the school curriculum rather than with how it is relayed. Although we have focused on the Pedagogic Device in this account obviously the quality and coherence of the syllabus is vital. In South Africa it is possible to get on national curriculum committees due to the relative lack of expertise within the system. Universities tend to have experts within the various subject specializations who have insight into both what Universities and schools demand and how to bridge the gap between the two. We are only in the early stages of engaging with the ORF in terms of the History curriculum but with Biology we have managed a sustained intervention into how the syllabus is structured (Dempster and Hugo 2006). Dempster made explicit what the central organizing concept of Biology is – evolution – and then structured the curriculum so that the various components needed to fully understand this concept were logically and explicitly introduced from grade 10 to 12. This was a complex process involving engagement and dialogue with a number of interested parties ranging from the Deputy Director General of Education, through to the specialist curriculum sub committees, textbook publishers, popular media and teacher conferences.

The fourth level of engagement is with other Universities working in a similar way to us. This is a productive, collaborative but competitive space, where symbiotic relationships build at the same time as critical debate. The University of Cape Town (UCT) has key theorists and researchers working with Bernstein (Muller 2007, Hoadley 2008, Reeves 2005). It is vital to develop intellectual networks that do not merely replicate existing options but generate new possibilities (Collins 1998). Different universities should both collaborate and critique each other, setting up different centres of intellectual power

generating and stimulating debate and research. If the hub for Bernsteinian research is in Cape Town then it is difficult for UKZN to compete. Strategic questions have to be asked as to how we set ourselves up in relation to UCT, either by critiquing Bernstein, using him differently, or establishing another niche (Hugo, Bertram, Green and Naidoo 2008). For example, intellectuals at UCT are attempting to work on an *optimal* pedagogy for the poor using Bernstein's work (Muller and Gamble, Hoadley and Gamble). Based on our research in KZN, especially within the rural and peri urban schools we feel that this is the wrong question to be asking as we do not have the teachers to execute such an optimal pedagogy, no matter how well adapted it is for poor learners. Rather we should be asking what a *minimal* pedagogy is that can work in such extreme and dysfunctional conditions. The point is that such debates between centres of academic power are crucial to the continuing health of educational thought and research within South Africa.

This brings us to the fifth level of engagement and the crucial role journals of education play. Although many other forums of debate must be pursued in our newly connected world it is in our journals that we have peer reviewed research and debate at the highest level. It is the structure that enables the continuing specialization of consciousness for those of us already in the place of knowing too much about too little. The process of submitting articles for review means a critical engagement with your peers who take your work seriously and substantively engage with your deepest thoughts and most recent findings.

Conclusion

The university plays a number of key roles in the production, recontextualization and reproduction of

knowledge within society. Firstly, it occupies an esoteric space where the yet to be thought is approached, negotiated, researched, fought over and articulated. Secondly, its academic members often play a role in rearticulating this esoteric domain for their students, the broader public and the schooling system, indeed throughout the Pedagogic Device. The theoretical space the university offers is one enacted by this paper, where the functioning of knowledge as a whole is researched and mapped out, where the nature of, and processes behind, specialization of consciousness are clearly articulated and then critically engaged with.

The university can play a key role in the struggle over and within the Pedagogic Device. We do find academics working throughout the Pedagogic Device but often without an understanding of just how key their role can be if they understood and worked with the functioning of the Pedagogic Device as a whole. Critical engagement with the production, recontextualisation, and reproductive enactment of knowledge forms would enable intellectuals within the university to actively contest who has control of the Pedagogic Device and to play a role in precisely how consciousness is specialized. Our own study suggests that the Pedagogic Device has many gaps within it allowing for critical engagement. We did not find evidence of one dominant group taking over the Pedagogic Device and using it for its own ends; things on the ground are far too complex and open ended for this. This does not mean that sustained interventions are not possible, only that it would involve more than fashionable theorizations about the reproduction of inequality using the latest radical theorist. It would involve understanding not only how the whole Pedagogic Device functions but the logics, constraints and possibilities within each level, and then actively taking on the burden of making a

contribution that has a tangible effect on the device as a whole with the interests of those most disadvantaged at heart.

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