Toward collective praxis in teacher education: Complexity, pragmatism and practice

A thesis submitted in fulfilment
of the requirements for the degree
of
Doctor of Philosophy
in the
University of Canterbury
by
H. Elaine Mayo

University of Canterbury 2003

Table of Contents

Acknowledgements	4
Abstract	5
Prelude	7
Chapter 1 Philosophical shifts in unruly directions	40
Introduction: Toward social change	42
Section 1.1 Philosophical shifts toward new understandings	42
Section 1.2 Toward interesting philosophy and a fresh vocabulary	44
Section 1.3 Toward philosophical and pragmatic wonderings	51
Section 1.4 The challenge of unruly knowledge	64
Section 1.5 Lost in a Good Thesis	73
Section 1.6 Toward unachievable equilibrium	78
Chapter 2 Toward collectivity: Self as multiple voices Introduction: Self as multiple voices	84 86
Section 2.1 Voices and subjectivities	87
Section 2.2 Common sense, irony and strategy: a chorus of whispers	103
Section 2.3 Self as a multitude of voices: an emerging model	109
Chapter 3 Toward what? Transcending modernism/postmodernism	113
Introduction: In search of a missing word: might it be pragmatism?	115
Section 3.1 Toward pragmatism	117
Section 3.2 Irony? Wittgenstein, the pragmatists, and the claims that can (or	r cannot) be
made by philosophy	127
Section 3.3 Strategy: Schrag, on praxis after postmodernity	139
Section 3.4 Common sense: Latour, Serres, and the emergence of knowledge	144
Section 3.5 Constructing the self: a pragmatic approach	151

Page	3
1 ago	_

Chapter 4 Transcending reflective practice	160
Introduction: Reflective practice in transition	162
Section 4.1 On teaching and teacher education	163
Section 4.2 Smyth: reflective practice as a political tool within capitalism	165
Section 4.3 Parker: 'reflective teaching' perpetuates modernist assumptions	173
Section 4.4 TL811: Critical Reflection does not address the issues	179
Section 4.5 Family resemblances within practitioner research	196
Section 4.6 Toward praxis in teacher education	205
Chapter 5 Toward collective research	211
Introduction: Transcending (not jettisoning) individualism	213
Section 5.1 Thought experiments and ongoing conversations	215
Section 5.2 Wittgenstein's methods	231
Section 5.3 Toward collective praxis: An emerging discourse	235
Chapter 6 Toward collective pedagogy: A praxitioner's report	240
Introduction: Toward collective pedagogy	242
Section 6.1 Postmodern and critical perspectives	243
Section 6.2 Current, pragmatic perspectives	251
Section 6.3 Praxitioner research in practice: Seeking collective pedagogies	259
Section 6.4 Praxitioner research in practice: Seeking collective praxis	275
After-words: Rhizomic forms writing and thinking	285
Toward ludic ways of understanding	287
Toward a definition of praxitioner research	288
Living in a Good Thesis	289
Index of footnotes: glosses and after-words	290
Index	292
References	299

Acknowledgements

Without the early support of my mother, Helen,
and the later encouragement of my husband, Kevern,
this project would never have been started.

I dedicate it to them, with love.

To my supervisors, Elody Rathgen, Robert Tobias and Alan Scott,
thank you for your advice and support: may our conversations continue.

To Elody, especial thanks for your vision and trust.

I cannot claim this work as my own because it has emerged in the midst of many conversations with colleagues, students, friends and family.

My thanks to all my Companions¹, named and unnamed who appear within these pages.

I acknowledge, in particular,
the influence of early morning philosophical conversations with Adrienne Roberts,
the editorial support of Elizabeth O'Connor,
the special insights of my friend and teacher-praxitioner, Barbara Retemeyer,
the ongoing encouragement of my whānau,
and, of course, I thank Christchurch College of Education
for substantial material and collegial support.

¹ Gloss on Companions

Companions, with a capital C, refers to all of my colleagues, family, students and friends with whom I have had conversations about this thesis and other *substantive issues*. It refers too, to the *thought experiment* and *ongoing conversations* which have surrounded the construction of the ideas in this thesis, and to my virtual Companions (such as Winnie the Pooh, Ernest, Hélène, Karl, and Mea-nui) whom you will meet as you interact with this text.

Toward collective praxis in teacher education: Complexity, pragmatism and practice

Abstract

In this thesis I claim that dominant realist, interpretive and postmodern research methodologies, taken together, provide necessary but not sufficient tools for use within educational research. Understandings of material, social and linguistic worlds do not, in themselves, cater for teachers' pragmatic needs to consider (a) the social consequences of educational practices, both their own and those of the institutions within which they work, and (b) the complexity of teaching in a postmodern world. I draw on ideas from pragmatism, post-structuralism, critical pedagogy, complexity theory, reflective practice, and personal experience in order to invite the emergence (or social construction) of new phenomena: these I hope, may enable teachers and other educationalists to take a vibrant part in ongoing debates and actions concerning educational policy and practice. I argue that the assumption that educational theory can be applied in practice is flawed and needs to be replaced by theory which recognises the dynamic nature of theory-in-practice: all theory is data within practice.

This is a late-career thesis written by a practitioner with an unusually broad experience of the New Zealand educational system. I argue that the purpose of theory is to guide practice, that practice must drive theory, and that theory and practice need to join together to focus on the consequences of planned actions. This is neo-pragmatism, but, as stated thus far, it is not enough for my purposes because it does not include a commitment to social justice. Praxis is a term which ties emancipatory political goals to theory-and-practice. I invite the construction of the understandings of *praxitioner activities* where collective praxis and individual praxis might co-emerge in the interests of social justice. I promote the expansion of fresh discourses through research into collective praxis within teaching and teacher education.

Prelude

Toward collective praxis in teacher education	9
• Toward	9
• Collective	10
• Praxis	12
In teacher education	18
Toward collective praxis in teacher education	19
$Why this thesis? \ Why these three themes: complexity theory, pragmatism and practice?$	20
Why complexity theory?	22
Emergence and complexity theory	24
• Why pragmatism?	27
• Why practice?	31
How do I attack this task?	33
In support of the need to write creatively	33
• In support of various conventions and perspectives	34
In support of dictionaries and encyclopaedias	36
• In support of oral traditions	37
In support of my voice as a teacher	37
In support of multiple writing styles and tools	39

Prelude

My dream is that the teaching profession might become more closely linked to positive social change in a society where, by caring more deeply for community as a whole, we can treat structural barriers to individual achievement as communal concerns. My argument is that teachers are situated, according to my understanding of their ideal role in society, to foster emancipatory social change, but that structural and ideological constraints commonly restrict the possibility of such initiatives. I suggest that existing teachers who work collaboratively within their communities, with a strategic knowledge of both critical and postmodern theory, as well as sound understandings of established educational theory, are already agents of this enabling kind of change. My hope is that more teachers might have opportunities to work in situations where they can influence their students and their communities in the direction of emancipatory social change. My question therefore concerns the ways in which I, as a teacher who teaches teachers at postgraduate level, might act in support of this dream, and of the dreams of other teachers.

One major challenge for current educational theory is to understand the functioning of a group as opposed to the success or failure of the individual surviving (academically or socially) within a group. My observation of the ways in which people talk about teaching, on the whole, is that the action of an individual student or teacher is understood mainly in terms of individual agency: the psychological language of twentieth century educational theory dominates, teamed with structural understandings of the ways in which societies operate. From a psychological perspective, the individual is often described as an autonomous actor, an *agent*, living within *structures* which have been constructed socially. An agent (the teacher or the student) commonly has little effect on the structure as a whole but the successful ones learn to live within it in ways that convince them of its permanence and importance: they act in ways that will improve the system and their personal fit within it, and they strive to overcome its inadequacies. Meantime, the less successful and those who see the world differently become, in various ways, rebellious, or resistant; they don't quite fit, and learn to live at the fringes of the educational establishment.

In my view, an approach which focuses on individual psychology and structural sociology is both a helpful and an unhelpful model: it is helpful in its descriptive power; it is unhelpful because of its dominance and because of the way it positions those who do not

conform to currently accepted notions of psychological normality. I seek procedural and structural models which might enable the fringe dwellers to have a more valuable and valued relationship with the processes and structures of education: the fringe must become part of the whole. My aim is to seek out such alternate ways of understanding the social enterprise which we call *teaching* and the social contract we call *tearning*.

My investigation is largely theoretical: I have read widely and found threads of meaning which I have related in many ways to my own teaching. The words *complexity*, *pragmatism and practice* point to the theories I call upon in this discussion: *complexity* points to theory of *self-organising systems* from the new sciences; *pragmatism* refers to educational theory which is eclectic and purpose-driven, rather than ideological and truth-driven; *practice* refers to the acts of teaching and learning and the ways in which *theory-in-practice* (the understandings and experiences of the actor) and context (the conditions surrounding the actor) interact in real life to produce fresh action.

My finding is that it is imperative to investigate in more detail the notion of collective learning. We are all aware of classrooms, or places of work, where various forms of conflict and disagreement act as barriers to learning and the exploration of new ideas, yet the responses I see within these situations are commonly attempts to deal with the problem by fixing certain individuals rather than by addressing the complex dynamics of the situation as a whole: disruptive students are excluded from class, or trained to behave differently; the teacher who thinks radically is ignored, or judged to be idealistic, and tends to leave classroom teaching; compliance with established or dominant norms is valued. Yet we are also aware of cultural difference: normal or compliant behaviours within one culture or group can be unacceptable in another; we know that exclusion is not the answer, yet in our struggle to maintain stability, exclusion becomes the best solution (and it is even better, less troublesome, if exclusion is voluntary, and people of difference simply leave). Our attention needs to be shifted from the actions of the individual to the dynamics of the group as whole: within *educational praxis*, there is a need to understand more about how groups adapt and change when their stability is disrupted by arrivals or departures of members, or by social pressures that impact on health and survival of the group.

I call upon both post-structural theory and complexity theory in the early part of this thesis as I develop some fresh ways of thinking about collective knowledge construction. In the latter part of the thesis I consider some of my own existing educational theories, including

ideas that have developed in the writing of this thesis, and comment on how they have influenced my practice. My argument does not lead to concise conclusions, rather it opens up questions which need to be investigated collectively, in context, by teachers and learners. This investigation will aid all involved to understand our (everyone's) existing collective knowledge, and to learn more about how we are all (collectively and individually) actors who have living parts in the drama of constructing the future of our society.

In the remainder of this introduction I comment, firstly, on the meanings and connotations of the words in the title of the thesis and at the same time point out the key arguments that are woven in the text that follows. Because I am attempting to demonstrate that knowledge construction is a fluid, dynamic, social process, the text in the main body of the thesis does not adhere to some of the conventions of traditional academic writing: this summary of the key ideas is designed to assist the reader to have a sense of direction and to be able to identify ideas as they begin to emerge. Secondly, I shall mention briefly some of the driving forces that have led me to write this particular thesis: I explain that none of my theorising is very far from what I see around me, and I point out that all I am trying to do in this investigation is clarify and build upon some of the trends and understandings that are currently emerging within educational theory, policy, and practice. Finally, I explain and justify some of the strategies I use in my writing in order to create a change in thinking about collective knowledge construction, though this is difficult because the strategies are complex, purposive, and emerging: they defy definitive description.

Toward collective praxis in teacher education

Toward

Toward suggests movement, planned movement, from one location in the direction of another. It suggests an adjustment, not necessarily a complete departure from the previous location, certainly not a rejection. (I move from the table toward the bookcase, but I might return; and I value both.) Here, *toward* points in the direction of a change in world view, an epistemological change, a shift in meaning. Within this thesis I seek ways of viewing knowledge as something that is constructed dynamically and socially, in the best traditions of post-structural theory, while at the same time I do not jettison the realist, scientific knowledge we have generated about the material world as we experience it. In order to do

this I call upon theorists who bypass, in various ways, the divide between modernism and postmodernism, or the divide between realism and relativism. Debates about distinctions between epistemologies are theoretical: I try to move beyond them *toward* a pragmatic space where the implications of this theorising for practice might be investigated.

Collective

Collective refers to the multiple perspectives, meanings and viewpoints which might be brought together within an assembly of people; collective connotes the idea that the whole is greater than the sum of the parts, that no single part carries all of the knowledge or understanding of the group, and that new knowledge is generated, in context, as people work together to learn from each other and to decide upon what they will agree, where to differ, and how they will act (individually and collectively) as a result. Collective hints at pluralism and complexity, the need to be able to cope with and thrive on uncertainty and disagreement, yet at the same time respect difference, appreciating the fresh insights it brings. Collective suggests a common purpose, a commitment to be together over an extended period of time in order to achieve some security, or to resolve some issue that is a shared concern: the individual within a collective has an interest in caring for and nurturing the group as a whole, for the duration of its life.

In discussing the notion of a collective I look to complexity theory, in particular the idea of self-organising systems and the closely-related notion of emergence. I see a *collective* as a self-organising system which is constantly emerging afresh as it interacts with the myriad other overlapping self-organising systems which constitute our world. When a teacher comes together with a new class at the start of a school year her/his prime task is to create a learning community (no matter what pedagogy she/he chooses to employ) where the collective (the class) are able to work together in agreed ways. The establishment of routines, and the tussles and power struggles that occur during the first few weeks of class are the outward signs of the emergence of a new learning collective.

By considering a collective in this way, I shift the analysis away from the individual and onto the group. Different questions arise when the focus is changed: instead of questions about individual behaviour the questions examine how the collective develops its own ways of being. The values a collective establishes (what is acceptable in this classroom, and what is not) vary from group to group: they depend on all the participants (not only on

the teacher but also on the combination of students in the classroom) and on the nature of the collective (a primary school classroom and a six week option block within a secondary school are quite different groups with different levels of commitment from the participants).

Subjectivity and the social construction of the individual become important considerations when the group rather than the individual is the object of analysis: what options are available to individual students/teacher within this setting? what is silenced? which voices are heard? who (which aspects of self) are advantaged? who (which aspects of self) are excluded?

The notion of the *collective* refers to more than a classroom grouping, or other gathering of people assembled over an extended period for some common purpose. The notion also refers to entities that can be described as self-organising systems. I suggest that, in line with complexity theory (see, for example, Gleick (1988), Skyttner (1996) and Johnson (2001)), the models and insights that apply to any collective might usefully be applied to any other. I develop in chapter 2, for example, the notion of *self as a collective of voices*: this is in clear contrast to the notion of self as an autonomous psychological entity; it sits comfortably alongside postmodern, feminist constructions of self as a discursive production, but it expands upon them in order to account for the way in which individual understanding and experience are able to be brought into play within particular discursive settings.

A shift, from an investigation of an individual element of a situation or entity, to an understanding of how all the elements involved interact collectively, is a fundamental theme of this thesis. I argue in support of *a post-individualist philosophical shift* (a term adapted from Scheurich's (1997) notion of a *postrealist philosophical shift*, see below: 56), and suggest that there are advantages in investigating, collectively, in an emancipatory way, how such a shift could apply to epistemology, pedagogy, research, teaching, learning, educational policy making, etc.

Praxis

Praxis² has multiple and changing meanings, some of which I expand upon in following chapters (see the index, which includes, for example, below: 136, 140, 152, 154, 158, 210). Praxis, broadly, refers to the integration of theory and practice in the interests of social justice. In my use of the word, praxis focuses attention on day-to-day activity and the ways in which our understandings prompt our actions, and, vice versa, it attends to the ways in which our experiences prompt our understandings.

Praxis connotes action that is politically aware and analysis that is informed by critical theory. This thesis acknowledges a need to look afresh at ways in which individual voices might contribute to collective action in the interests of social justice. The notion of praxis points to the need for individual actors (teachers and teacher educators in this case) to identify the assumptions on which they base their pedagogy, to articulate them, question them, name them, to seek out hegemony, and identify the ways in which the dynamic of power impinges on all of our actions. No teacher can do this alone for two reasons: firstly, the fields of educational theory, pedagogical theory, postmodern theory, and critical theory are too vast for any practitioner to investigate (too vast for any specialist also), and secondly, even if they were not, the teacher is always, every instant, dealing with a totally unique combination of factors. Under this construction, theory and knowledge are emerging in practice, the teacher is informed by educational theory, but her/his decisions are grounded in current reality. The political implications, the influence of power, and the ways in which teaching is a hegemonic practice are all constantly being constructed and reconstructed afresh.

² Gloss on praxis, and its importance in this thesis

NSOED (New Shorter Oxford English Dictionary, see below, footnote 7, on page 22) defines praxis as:

3. In Marxism, the willed action by which a theory or philosophy becomes a practical social activity. (NSOED)

and:

2. Habitual action, accepted practice, custom. (Ibid)

My wish is that *praxis* should become a term which is understood and used broadly in both of these ways. By constructing the terms *praxitioner* and related *praxitioner activities* (*praxitioner pedagogy, praxitioner research, praxitioner collective*), I seek to turn praxis in upon itself so that the second definition (2. above) describes the first (3. above). I am seeking a situation where the "habitual action, accepted practice and custom" (2. above), of both individuals and groups, <u>is</u> willed action in which theory and philosophies become integrated into practical social activities (3. above). I seek a situation where theories and philosophies are not *applied* but are used habitually, thoughtfully, consciously, and systematically as lenses within *praxis*.

The irony of this thesis emerges at this point. I write about the need for collective praxis, yet my writing is individual and theoretical. The description of praxis in the previous paragraph emphasises verbal interaction rather than the actions of the individuals and collective. I make sense of this irony in two ways: because this thesis is being submitted as work toward a qualification it needs to appear as individual rather than collective work (and it is individual work, to the extent that any work can be independent of the community in which it evolves); because I view praxis as an emergent, collective, political activity made up of routine actions and words in association with others, this writing must appear theoretical rather than practical (and it is theoretical in that, as a textual icon, its influence can be only on discourse). The practical consequences of this thesis, for myself and its readers, must flow from discourse, from fresh understandings, from fresh conversation, about the implications of this writing; these consequences are my pragmatic concerns as I strive to write theory which might have consequences in practice.

Education is a field which is profoundly political in its endeavour. It is one of the overt social structures which shape the social values of rising generations, and with the increased emphasis on adult education and the construction of education as a lifelong event, it also contributes to shaping and altering the values and beliefs of the community at large. The bounds of education have been expanded in recent times: public education programmes on health and safety issues, now common in the media, serve to change common sense understandings and behaviours. Where education was once a synonym for schooling, this is no longer the case. In the sense that education as a collective enterprise shapes the attitudes and beliefs of society as a whole, nothing is more political than education. Furthermore, where values and beliefs are changed, slowly, through an educational enterprise as opposed to a more radical revolution, the change can occur relatively peacefully, and be relatively permanent. *Praxis* can contribute to slow but (r)evolutionary change where theory and practice blend to address what we (society collectively) identify as the most pressing issues of social justice in our times. *Politics* is, under this construction, the social act of jostling priorities and values; the selective silencing of voices is undemocratic, and to the extent that schooling reproduces current social injustices and silences, schooling is profoundly problematic. This reproduction of inequity through schooling is a matter that needs to be addressed collectively, I argue, by learners, teachers, teacher educators, policy makers, researchers and administrators who seek to uncover and

change those hegemonic practices which perpetuate injustice. The shift I promote begins with a philosophical shift, but it must not end there: the real problem arises in the shift's articulation into practice. I recognise that a lot of this work is happening around me, and I have sought, through my search within the literature, to clarify ways of looking afresh at this emerging social phenomenon.

Praxis refers to distinctions between theory and action as made by Freire (1972). Theory without action is, Freire argues, verbalism while action without theory is activism. These are problematic words. In today's climate, teaching is constructed as a caring profession, and educational theory underpins teacher education: teaching is informed by ongoing research into classroom practices; theory is influenced by researchers such as Schön (1983, 1987) who criticised boundaries between theoretical high ground and the swamplands of practice; postmodern understandings of subjectivity have helped to identify the importance of personal theories-in-practice of teachers. The voices of theory and practice have come together within educational thinking in ways that make verbalism and activism inappropriate terms to apply to teachers or to educational researchers or theorists.

I maintain, however, that much is to be gained by dwelling on the ways in which praxis might be used to point to existing distinctions between academic theory and teaching practice. It is not true, for example, that teachers working in schools or the early childhood sector commonly have an understanding of critical theory, or postmodern theory, or ways in which these lenses could usefully impact on their day to day work. Many will have a common sense understanding of these terms, some will have met the ideas within academic studies, but few will have been involved in ongoing professional conversations surrounding their relevance to teaching - the obvious exceptions to this generalisation being those who, in secondary schools, teach the social sciences. I base these assertions on my observations of teachers in the core taught course of the master's degree (MTchLn) in which I teach³: these teachers tend to comment late in the course, with some surprise, that ideas from these fields, ideas that seemed alien and abstract to them initially, have become

³ Gloss on MTchLn

I teach within the Master of Teaching and Learning (MTchLn) degree at the Christchurch College of Education (CCE). This degree, first offered in 1997, has a focus on praxis, defined as the integration of theory and practice. The core paper within it, *TL801 Researching Teaching and Learning*, juxtaposes educational theory, practice and research so that participants, who are qualified and experienced teachers, may gain some insight into ways in which power and knowledge are constructed and maintained.

important to them in their views of teaching. I base my assertion, also, on my awareness of differences between myself as a teacher of mathematics coming from a scientific background, and teachers in the social sciences: they clearly saw the world differently from me: they had tools of understanding that I lacked. It is perhaps the fact that I have come to understand postmodern and critical theory late in my career that enables me to identify their importance within this thesis.

The distinction I draw between theory and practice is therefore one of access rather than one of intent. Teachers who work outside the tertiary sector need more *access* to critical and postmodern educational theory in order to be able to take part in educational praxis which is informed by a range of perspectives: this access should come, I argue, through *collective praxis* where, as part of their paid work, teachers are engaged in conversations which call upon educational theory of all shapes and forms in order to address local issues. Then, teachers would be acting pragmatically (in the senses that I shall describe later in this introduction) within their local settings, yet at the same time, their expertise as practitioners would be informing the emergence of new educational theory. This is an ideal, a dream. School teachers cannot always look toward the wider social issues that surround their practice; some occasionally do, others are too busy with day-to-day routines to think about these things very often. One aim within this investigation is to look for ways in which this dream might become more real: I look for strategies which might make it more possible for more teachers to engage in *reflective praxis* as part of their day-to-day work.

I argue that it is useful to draw a distinction between the word *practitioner* and the word *praxitioner*. These are not labels to put on people; they refer to distinct activities. *Practitioner* applies to any teacher activity. *Praxitioner* applies only to those activities where the teacher recognises the political nature of praxis, and the potential for collective praxis to influence society in the interests of social justice.

Praxitioner research would, under this emerging definition, suggest that the researcher, in this case a teacher or teacher educator, would be researching his/her own practice, would be seeking to understand the ways in which practice affects social outcomes and perpetuates or disrupts existing patterns of inequities or injustice. Praxitioner research cannot be carried out alone because the construction of meaning is a collective activity: it involves interaction with others, including students and other colleagues who are

researchers and/or teachers. I seek ways in which current practices might enable *praxitioner research* to become recognised as a valid educational practice in routine teaching.

I distinguish, thirdly, the notion of a *praxitioner collective*. Within a praxitioner collective or network, there is a pragmatic intent to bring differing perspectives together within one ongoing discussion around an important issue of concern to the community within which the group operates. The issue (which I come to refer to, inspired by Latour (1993), as an emerging object, but later argue is an emerging discourse) acts as a magnet which attracts different perspectives. The group, once established, has a life of its own in that it continues beyond the completion of any specific project, and it survives the passing on of any particular individual. In this sense, a praxitioner collective is a self-organising system. I argue the importance of paralogy (in the sense that Lyotard uses the word, the search for dissensus as opposed to consensus) within a praxitioner collective: oppositional voices are essential within a self-organising collective. Within my emerging definition, I classify Parliament as a praxitioner collective for the following reasons: it is structured to bring together different voices, yet the particular individuals change over time, as do the parties, although the life span of a particular party is commonly longer than that of a particular politician; it has specific social functions and is expected to act in the short term (in ways that I refer to as constrained pragmatism), and to envisage and investigate long term implications (*creative pragmatism*); it establishes procedures for its operation, yet these are constantly contested, and issues are debated in ways that defy logic, yet do not deny the value of the rational.

The bringing together of voices of difference over issues of shared concern is a profoundly democratic process. It is one that I suggest might be echoed more effectively throughout education and society. The example of parliament is useful, because the structures there are clear and unambiguous, however, there are much more interesting instances within education. There are, for example, paralogical classrooms where the teachers and the students work together, celebrating differences in order to learn, together as whānau*4, how to be creative in the face of social problems, how to build aroha*5 into their daily work. Not all classrooms are like this, not all would aspire to be, but by naming an ideal it

^{*} See footnote on the next page.

becomes possible to wonder how that ideal might be achieved, and in which situations it might be attractive or unattractive, and to whom, and who would benefit.

The ideal of a classroom as a *praxitioner collective* would require, for example, that we identify ways in which individual voices might become more articulate and more political, and democratic processes less constrained by structure. Theory surrounding self-organising systems challenges current assumptions about the importance of hierarchical top-down decision-making structures and foreshadows the possibility of a bottom-up revolution in systems thinking. I suggest that alterations to praxis can influence teaching practices, understandings about learning, institutional organisation, and social justice within society. This thesis argues that, by fostering collective praxis within teacher education, we may be able to work toward constructing a more socially just future.

⁴ Gloss on whānau

whānau: the word connotes an extended notion of caring for the collective well-being of the group, including responsibilities of older children to care for younger.

Williams (1971) translates the term:

- 3 Offspring, family group
- 4 Family (modern) It is questionable whether the Māori had any real conception of the family as a unit.
- 5 A familiar term of address to a number of people. (Williams, 1971)

The notion of a "real conception of a family as a unit" is highly problematic: does Williams, perhaps, assume that a nuclear family is a "real" family unit? Or does he suggest that the English idea of "family (as a unit)" is quite different from "whānau"?

Within education in Aotearoa New Zealand, *whānau* has been adopted to refer to groupings of students of different ages who remain together with their teachers as a family unit. Whānau whānui refers to broader groups such as those where school, work, or sporting relationships, rather than kinship, create the bond.

⁵ Gloss on aroha

aroha: unconditional love, care, empathy, concern for well-being. The term does not carry the one-to-one, romantic / sexual connotations so commonly associated with the English term *love*.

Williams' (1991) defines it thus:

- 1. n. Love, yearning for an absent relative or friend.
- 2. Pity compassion.
- 3. Affectionate regard.
- 4. v.i. Feel love or pity
- 5. v.t. Show approval

In teacher education

Teacher education refers to the context of my own work and learning. Teacher learning is informed by far more than formal professional development; teachers' understandings are informed by total cultural and life experience: the media, the family, interchanges at the pub, experiences with students in and out of the classroom, critiques and theories of colleagues and from the literature, and personal recollections. All these things are influences on teacher understanding, hence on my understanding, my learning.

What, then, is the role of formal teacher education? What curriculum should be taught (and whose interests are served by the various answers this question generates)? What research methods are important in post-graduate level courses (and whose interests are served by the various answers this question generates)? What is the social purpose of such ongoing professional development? What social forces influence teachers to be involved in ongoing teacher education? What pedagogies might teacher educators favour, and why?

Questions of this kind suggest that teachers are located within a self-organising system at the level of national structure. What it means to be a teacher changes with the regulations and requirements (registration, for example) that surround the role of teaching; these things in turn, influence the ways in which the structures of schooling (educational governance, leadership, and management) impact on the freedom of teachers to act as autonomous entities. To what extent might ongoing teacher education condition teachers to accept the current rhetoric of good practice (for example, assumptions about the importance of assessment) and teach them to *apply* current regimes? In what ways might an ongoing cycle of in-service training activity *deter* teachers from challenging the hegemonies that are built into the educational system? The questions become too hard, too theoretical, for the practising school teacher who has to face a class on Monday morning.

The theoretical investigation I report on in this thesis addresses these issues by changing the question. By focusing on collectivity and praxis and by calling on literature from pragmatism and complexity theory I suggest that it might be possible to shift understanding of what it means to be a teacher in ways that will erode existing, top-down, surveillance hierarchies and build in their place, more democratic, bottom-up, collective networks where different voices and cultures can all struggle, more equitably than at present, for a place. Within this construction, the notion of teacher education as a discipline is deeply problematic; instead, teachers would be constructed as partners with

the rest of society in investigations into social change. I am not dreaming of Utopia: struggles, under the kind of model I envisage, will be just as disruptive and challenging and resources will be just as difficult to share out, perhaps more so. The difference is that the struggles are closer to home, and we each, individually and collectively have more power and influence over local outcomes. We each struggle to learn how to share power, and how to listen to the learning and the knowledge of others.

Nor do I suggest that top-down hierarchies will be replaced or eliminated, rather I am suggesting, that the tension between the collective and the hierarchy acts to sustain some kind of healthy but perpetually-changing equilibrium. The professional knowledge of a teacher becomes an adroit skill-in-praxis: a skilled teacher has the ability to act consistently as a leader of curriculum and pedagogy, yet simultaneously, to foster creativity and build on the individual and collective experiences of the group, and to adapt, in a responsive way, to the unexpected and unpredictable.

Toward collective praxis in teacher education

Toward collective praxis in teacher education therefore names teaching as a political activity. Traditional classrooms, where teachers hold the power and knowledge, have in the past largely been the domain of middle-class, adult, patriarchal, Western, prescriptive pedagogies. These pedagogies are more widely critiqued in twenty-first century New Zealand, and other approaches including feminist and critical pedagogies are becoming more common, yet the dominance of the tradition remains.

The shift *toward collective praxis* recognises that different pedagogical assumptions motivate different ways of teaching. By calling for collective praxis I am suggesting that, despite these differences, if educators, teachers, researchers, policy makers and the like, are collectively engaged in addressing a shared issue of common concern, then the differences cease to be impediments and become, instead, usefully different lenses on the same problem. Ongoing teacher education, within this model, means being part of a research team who are investigating a shared issue. Ongoing discussion seeks out (rather than isolates) differing perspectives and understandings, in an eclectic effort to find creative solutions to the shared concern. Divisions among researchers, theorists and teachers dissolve into critical debate within shared, bottom-up, learning-based investigations.

This sounds very idealistic, yet, I argue, it is already beginning to happen in practice. I hear interesting stories about classroom practice and believe, therefore, that we do have classrooms where learning is a shared activity and learners, including the teacher, collaborate in coming to understand each other better. I have worked within networks of teachers (the EQUALs network, see below, gloss 33, page 172, for example) where the aim has been to learn more about how they can influence the learning of their students. We already have research initiatives which foster practitioner research and which routinely involve teachers in work which crosses boundaries between practice and research: within the institution that I work, see, for example, Conner (2002), Delany and Wenmoth (2001), Grainger et al. (2002) and Lovett (2002). I observe these developments and they encourage me: perhaps the changes I advocate are well under way, perhaps what I am doing is no more than tracing a theoretical explanation to reinforce a change which is already occurring.

Toward collective praxis in teacher education: complexity, pragmatism and practice is, therefore, an investigation into the importance of collective knowledge construction, particularly within teacher education. It is profoundly political in its ideals and in its underpinning. I seek social change by enabling voices that are currently silenced to emerge and be heard as part of a collective, politically-astute chorus.

Why this thesis? Why these three themes: complexity theory, pragmatism and practice?

This work is a late career thesis. I began teaching in 1969. I gained a variety of responsibilities in schools and later as an adviser, inspector and reviewer. I studied in London for a year, began working in teacher education in 1993, and teaching master level classes in 1997. Educational theory and empirical research beckoned me in new ways: I looked afresh at the authorities, educational theorists and empirical research traditions, and found they puzzled me. How did this material relate to my lived experience as a relatively successful teacher and educator? How might it inform ongoing teacher education? How was it relevant to teachers?

Gaps and silences trouble me. While we busily attend to the noise generated by A and B, we may miss the insights we could gain by listening to C and D. Where, for example, are the voices of the students in the educational enterprise? Where are the voices of school teachers in the shaping of educational policy? I, as a young teacher, was involved in

curriculum development work which informed educational policy - not so today's young teacher. Why are competent and enthusiastic teachers returning to study and seeking higher qualifications? What drives this? How does this phenomenon divert energy from more political activities?

I do not want to answer these interpretive questions, rather I want to ask some more pragmatic questions which might guide my future actions. What are we gaining and what are we missing out on by moving all this intellectual energy into ongoing study? What opportunities could this phenomenon offer, and how might it be perpetuating the inequities of our social world? How might I, as a teacher educator, act in order to work within this phenomenon in the interests of social justice? In what ways might we envisage creatively the school classroom and the lives of the communities who live there? How can we, collectively as a researching society, benefit from the knowledge-in-practice of teachers? How might we put our dreams into practice?

I do not seek to undermine or criticise the existing research methodologies and educational theories; instead I argue that they are part of a pattern that has some gaps within it, gaps which I aim to identify and name. I look at the kind of research some of my colleagues are doing and see that their work is important, but something is missing. It is something to do with the voices of the people with whom we, as researchers, are working. To me it seems that educational researchers are either involved in some form of participatory or action research (where individuals or small groups work within the context of their own teaching, in the interests of improving their practice) or in some form of empirical, interpretative or evaluative research (where they are setting out to describe patterns within the social world as we are able to perceive it). In each case, the focus tends to be methodologically and ideologically located within one particular world view or paradigm; researchers with similar interests and shared understandings support each other and generate important knowledge and understandings. I see the importance of these kinds of research. In each case we listen to the subjects/participants, we listen seriously and professionally as practitioners and researchers, but, to the extent that we continue to focus on our selves (our teaching practices or our interpretations of what is being said), we may fail to emancipate the student

The linking themes around which I argue my case are complexity theory, pragmatism, and practice. I dwell on the importance and relevance of complexity theory in this introduction

because I understand it to be a relatively new perspective and need to give sufficient background for the reader to gain some understanding of ideas that swirl through my later writing: the possibilities and implications of a philosophical shift in the direction of complexity theory echo around the edges of all of my writing yet I shall not bring them to the fore again, in any concerted way, until I discuss my findings in the final chapter. Not so pragmatism and practice which appear routinely and overtly throughout my writing: I dwell on them less in this introduction.

Why complexity theory⁶?

I begin by giving a little background to complexity theory, I bemoan the fact that it appears infrequently within educational writing, and then indicate why I see particular aspects of it (*self-organising systems* and *emergence*) as being of particular importance to this thesis. The notable New Zealand exception is in Biddulph *et al.*. (2003) who observe in their *best evidence synthesis* report that:

... relevant research studies tend to be premised upon deficit, or difference, or empowerment/enhancement theory ... and these underlying assumptions require critical analysis. (Biddulph *et al.*, 2003: 10)

Biddulph *et al.* (2003) call upon on both complexity theory (including Bronfenbrenner's (1979) ecological model) and chaos theory as tools in this critique.

Schools are examples of complex systems, as is a classroom.

⁶ Gloss on complexity theory

Complex systems can ...be studied from points of view which can be seen as complementary rather than competitive. The choice of theoretical approach depends mainly on the type of insight that is sought. (Skyttner, 1996: 26)

My use of the term complexity connotes the emergence of "holistic thinking" (Skyttner, 1996, chapter 1) and systems theory which, when applied to societal problems, invites a different approach to problem solving from those that dominate research within the physical sciences.

Planners and problem solvers dealing with large-scale societal problems have long been aware that their situations are quite different from those of ordinary scientists and engineers. Classical methods of science and engineering have little if any relevance to their work. ... societal systems have no goals to be achieved, rather they have relations to be maintained. (Ibid: 248)

Skyttner points out that H. Rittel and M. Webber's (1974) main thesis is:

that social problems (which they call *wicked problems*) are never solved. At best they are only resolved - over and over again. (Ibid: 248)

As we struggle to understand ways to improve schools, the new sciences reveal a world in which chaos and order are parts of the same system, existing simultaneously. We live not in a world of *either/or* but the dawning of *both/and*. We learn that schools are complex dynamical systems that are continually influenced by many variables, just as wind, temperature, and moisture affect a weather system and each other. Weather systems and the course of school improvement are both unpredictable in their details but not in their patterns. (Garmston & Wellman, 1999: 2)

Complexity theory provides a fresh way of viewing interactions among the individual, separate components of a complex system. Weaver (1948, discussed in Johnson, 2001: 46-48) distinguishes three broad camps of scientific inquiry in the last few centuries: simple systems (e.g. Newtonian mechanics, dealing with problems of only two or three variables); disorganised complexity (dealing with problems of millions of variables where statistical mechanics and probability theory apply); and organised complexity (where as many variables apply but what is more important is that the variables are interrelated within an organisation). "These problems, as contrasted with the disorganised situations with which statistics can cope, show the essential feature of the organisation" (Weaver, 1948 quoted in Johnson, 2001: 47, italics in original). Weather patterns and schools are examples of organised complexity: the patterns that appear are resilient; they are features that continue to emerge; even when the system changes the patterns continue to appear; they may adapt and modify themselves but patterns continue for as long as (organism/organisation) continues to exist. This third scientific camp has emerged only since computers have been able to churn through millions of calculations per second. Investigation into these systems and patterns is valid and useful scientific research. This third camp of scientific inquiry is emerging in the social sciences in ways that do not depend on computer modelling, but rather which require a shift in understanding of the ways in which we view complex systems, their stability, the interactions of their component parts, and their possible evolution.

Self-organising systems are analysed in terms of the patterns of organisation rather than by considering the individual actions of the individual components within the organisation.

In the simplest terms, they [self-organising systems] solve problems by drawing on masses of relatively stupid elements rather than a single, intelligent "executive branch." ... The movement from low-level rules to higher-level sophistication is what we call emergence. (Johnson, 2001: 18, italics added)

Self-organising systems rely on four core principles:

- the interaction of neighbours,
- the recognition of patterns,
- feedback mechanisms,
- indirect control. (Ibid: 22)

Each principle contributes to the central idea that the focus is not on the individual within the system but rather on essential features of the organisation: the neighbours who interact are the elements that make up the system; the kinds of patterns are identified within the organisation, by those who are part of the system; individuals are given feedback as a part of the system; the whole organism/organisation is not directly controlled by a hierarchical decision-making structure: instead, patterns emerge, and understandings exist within the networks, and communication and feedback mechanisms. The organism/organisation emerges afresh in response to challenges from its environment. Under this construction, a self-organising system is a living, dynamic life-form.

Within this thesis I refer to several kinds of self-organising systems and make implicit comparisons among different systems. For example, in chapters 1 and 2, I grapple with the complexity of knowledge and seek ways of explaining how I, as an example of an individual, can see my self, my *Inner* (to use Wittgenstein's (1953) term discussed in Johnson, (1993)) as other than either an essential, psychological entity (which was the belief I held a number of years ago), or merely a discursively constructed subject (which is a belief I was tempted toward more recently). By viewing the self as a *self-organising system*, I bring in another understanding, I see how a multitude of variables influence what I might say or do at any one time, yet recognise that there is a pattern within all those possibilities - at the same time, I do not (cannot) eliminate my earlier beliefs. I argue that these are all differing perspectives or lenses on understanding. I argue that it is not helpful to decide which is the best model.

Emergence and complexity theory

This thesis continues to emerge and change - it has a life of its own. Wherever I go within it, to write or edit, new ideas emerge. This is what I had hoped, to create a dynamic text which would generate debate and discussion of ideas that emerge in the reading. This thesis is not just my individual work even though I am the one who has worked on pulling

the text together. This thesis emerges from me, but who am I? I shall return to this question, but the position I am taking for the moment is that I am socially constructed so that my understandings come from the culture in which I am immersed; I am constantly changing and responding to the environment in which I find myself. I am not an essential person who holds definitive and principled positions; this thesis is not a static argument I wish to defend against attack. On the contrary, I see both self and thesis as dynamic entities which continue to emerge for as long as they continue to interact with their surroundings. When text is printed, examined, published and read, it is not the thesis: rather the text is a snapshot of emerging ideas as they will have been assembled at one particular time; the arguments will continue to evolve and change.

Ideas from complexity theory (emergence and self-organisation) resonate throughout this thesis. Johnson (2001, 66 (below: 33)) claims that "the emergent worldview belongs to this moment in time", shaping our thoughts and colouring our perception of the world in ways similar to clock-maker metaphors of the enlightenment and dialectical logic of the nineteenth century. Emergence illuminates the mystery of why the whole is sometimes smarter than the sum of its parts; it builds on the notion of "bottom up intelligence" where relatively independent individuals have communication networks that are strong enough to allow the emergence of an institution or structure at a higher level. Thus individual people come together to form a collective (a class group, for example) which collectively knows more and can do more than the isolated individuals.

Emergence happens when an interconnected system of relatively simple elements self organises to form more intelligent, more adaptive, higher level behaviour. It's a bottom up model; rather than being engineered by a general or a master planner, emergence begins at ground level. Systems that at first glance seem vastly different - ant colonies, human brains, cities, immune systems - all turn out to follow the rules of emergence. In each of these systems agents residing on one scale start producing behaviour that lies a scale above them: ants create colonies, urbanites create cities. (Johnson, 2001: dust jacket)

The whole is greater than the sum of its parts in many situations. The ones I refer to repeatedly in this thesis include: learning spaces (as in school classrooms); educational structures and institutions; the individual as a socially constructed entity; international relationships (much of this thesis was written in 2001-2003, after 9/11 and leading up to the Second Gulf War). The patterns of interaction identified within complexity theory apply to each of these domains. I suggest that, by considering each of these domains as

self-organising systems we may gain some fresh insights into the ways in which we might construct our futures: our future selves, our future classrooms, our future educational systems, and our future international relations.

In the text of this thesis I try to capture something of the shift in world view from the dialectical logic of the nineteenth century to the logic of self-organising systems that began to emerge in the latter part of the twentieth century. Postmodern writing has made a break with that dialectic logic. Perhaps it is helpful to think of postmodernism and complexity theory as different branches of the same river: their separation created an island which acted as a theoretical division between the flows of the physical sciences and the social sciences. Perhaps there is value in considering how similar they are, perhaps the braided river is now a better image: theories and ideas diverge and come together without the need to claim grand, universal truths. Theory emerges in practice, always based on past theory, always reacting to current conditions, but never predictable, always fresh.

The possible consequences of this approach are revolutionary; if we, as educators came to think differently about some issue then we would come to act differently, and our social organisation would change; change, if there be change, flows from a collective change in understanding and is therefore a stable form of change. For those who despair at the level of paperwork that has crept into educational management, and the lack of creative opportunities for teachers, and also for those who challenge the power of global organisations, Johnson offers a particularly attractive proposition:

...we will find ourselves relying more and more on the logic of these systems - both in corporate America where "bottom up intelligence" has started to replace "quality management" as the mantra of the day, and in the radical, antiglobalisation movements who explicitly model their pacemakerless, distributed organisations after [self-organising systems]. (Ibid: 66-67, italics added)

Yet caution is needed. Bottom up intelligence may be the mantra of the day, but this is not to say that quality management is to be forgotten: it is all a question of balance, or emphasis, of perspective: Manual De Landa illustrates this when he distinguishes meshworks (or self-organising markets) from hierarchies (or bureaucracies) and notes that these things should be understood in purely relative terms.

... the solution is not simply to begin adding meshwork components to the mix. Indeed, one must resist the temptation to make hierarchies into villains and meshworks into heroes ...

because ... they are constantly turning into one another, [and] because in real life we find only mixtures and hybrids, and the properties of these cannot be established through theory alone but demand concrete experimentation. (De Landa, n.d.: paragraph 19)

To think of aspects of education as complex, adaptive systems suggests, therefore, that solutions to problems may not be found, that, instead we need to live within situations where we are constantly needing to make fresh decisions in relation to changing circumstances.

Systems, however defined are complex, unstable, emergent, adaptive, dynamical and - significantly for our purposes - changing. In human terms, disequilibrium can be accounted for by intentionality, competition, ... intelligence, creativity, the independent behaviours of acting individuals, etc. It is a requirement that a system be perpetually out of balance ...; order emerges as the system (however defined, from ant colonies to complex economic practices) strives for *unachievable equilibrium*. Complex adaptive systems are constantly modifying and rearranging their building blocks in the light of predication, experience and learning They display 'perpetual novelty' Importantly ... in complexity theory organisms demonstrate the propensity for problem solving approaches Self-organisation is the order of the day. (Morrison, 1998: 5, italics added)

The models I develop within the body of this thesis are all aimed at finding some form of balance between competing ways of viewing issues: they each seek to understand how we might find momentary balance within the *unachievable equilibrium* of complex systems.

Why pragmatism?

I am not using pragmatism to refer to the common (as opposed to the philosophical) use of the word pragmatic as "advocating behaviour that is dictated more by practical consequences than by theory", or "of or concerned with the affairs of the state or community", or "meddlesome" (NCCDEL) or as "officiousness or pedantry" (NSOED)⁷. I recognise that these meanings work in opposition to the philosophical construct of pragmatism, which is "a philosophical movement holding that practical consequences are the criterion of knowledge, meaning and value" (NCCDEL), or the "theory that advocates

⁷ Gloss on NCCDEL and NSOED

NCCDEL The New Collins Concise Dictionary of the English Language: New Zealand edition (Gordon, 1982).

NSOED The New Shorter Oxford English Dictionary (Brown, 1993).

Toward collective praxis in teacher education: complexity, pragmatism and practice

dealing with social and political problems by practical methods adapted to the circumstances rather than by methods that conform to an ideology" (NSOED). Pragmatism refers to American pragmatism, with its origins in James, Peirce, and Dewey and the Chicago School (Audi, 1995: 638), and to more recent incarnations of this construct, some of which I summarise below.

Pragmatism is a discourse that attempts to bridge where we are now with where we might end up. (Cherryholmes, 1999: 3)

Cherryholmes argues (1999: 91) that: understanding pragmatism requires an understanding of how modernity has changed into postmodernity; modernism and rationalism have promoted logic at the expense of rhetoric, thus supporting the dogma of empirical research; less logic and more rhetoric is needed in order to persuade ourselves and others about the world and how it operates. He continues:

This is a move from a predominantly modern to a postmodern way of thinking. If educators make such a pragmatist and postmodern move - and I argue they will, sooner or later ... they will be required to criticise, reinterpret, and, possibly, reject at times, conceptions of rationality, hierarchy, expertise, accountability, and differentiation that many, if not most, were trained to value and promote. (Cherryholmes 1999: 91)

The requirement to criticise, interpret, and possibly, reject at times some of the conceptions Cherryholmes lists is central to this discussion. Pragmatism is not distinct from postmodernism: in its *emerging* form it calls upon postmodern theory, and every other kind of theory that has been named, and more.

The three comments quoted below are claims about the nature of pragmatic inquiry, its openness, and the consequences of this form of inquiry. Each comment comes from the appendix to Cherryholmes' (1999) text, *Reading Pragmatism*, which contains twenty responses to the question "What does it mean to be interested in the consequences of pragmatism?". This question is, of course, a pragmatic one in that it seeks meaning about consequences and ways of considering the future. These comments each hint at a philosophy which interests me as a teacher who wonders what and how to teach.

4. Because pragmatism is anticipatory and forward looking, it is inductive. Therefore *pragmatists* are fallibilists. Unless the future is like the past and we know the past completely and correctly, whatever we anticipate may be in error. Pragmatists expect that even our most deeply held beliefs may someday need revision. ...

- 15. ... Pragmatists wish to live in democracies where a wide range of viewpoints are likely to be expressed, thereby enriching the "discourse on the consequences of thinking." Authoritarian limits on inquiry are *necessarily* unpragmatic. Because of their inclusiveness and commitment to democracy, pragmatists ascribe to the tenet:
- 16 Do not block inquiry. Pragmatist inquiry continually reweaves our web of beliefs and tastes. ...
- 20. The result (a pragmatic outcome) is that as we anticipate consequences of our beliefs and actions, we choose our society and way of life. (Cherryholmes, 1999: 124-6, italics in original)

Some of the roots of pragmatism, together with some of the current calls upon this kind of theorising among feminist researchers and other postmodern theorists are discussed in chapter 3. There, I set out to develop a model which will allow fresh ways of looking at constructions of the individual as a constantly emerging self-organising system. Pragmatism teamed with complexity theory opens up, I argue, a new theoretical approach to individuals as elements within collective groupings of people. Individual action is viewed as a pattern within the operation of the larger group.

I promote a shift toward pragmatism for three reasons. Firstly, to shift in the direction of pragmatism represents a fundamental shift from the domination of interpretive research, with its long-standing associations with positivism and realism, toward methodologies that seek to influence the shape of the future. The shift is not a substitution, rather it is a shift toward finding a balance between interpretive and pragmatic approaches: this represents "a reweaving of our web of tastes and beliefs" (Cherryholmes, 1999: above, item 16).

Secondly, pragmatism rejects all manner of essentialism, foundationalism and representationalism. "In the language of research methodology," Cherryholmes (1999: 136) argues, "pragmatists are primarily interested in questions of *external validity*: Are research findings generalisable to other times and settings?" This question identifies a distinct break between pragmatism and some versions of realism: the statement reflects a post-positivist epistemology where it is not ever assumed that research findings can describe the essence of education, intelligence, water, mass, truth, rationality or justice; nor is that epistemology seeking foundational principles that would guarantee claims to truth, rationality, objectivity or progress (ibid: 125). Yet at the same time, it does not block inquiry (ibid: above, item 16), which means to me that investigations that do assume the existence of essences are not blocked. The questions that are asked of these essentialist investigations are ones of external validity: "In what ways are these findings

generalisable?" And, by a teacher, "In what ways are they relevant to my practice?" Investigations are not blocked, but, because pragmatists are fallibilists (see above), all findings are subject to revision. Post-structuralism is sullied by associations with relativism and has, as I see it, lost the battle for a place in popular language. Not so pragmatism, a term which is being used increasingly within academic literature and has the potential, I suggest, to be reshaped to serve a fresh purpose within popular educational usage.

Thirdly and finally, pragmatism bypasses those important dialectic debates about fine distinctions between different epistemologies. It does not ignore the debates between, for example, realists and relativists, nor does it question their importance in some contexts; however, the pragmatic question I ask of theoretical discussions (many of which I call upon in the early chapters of this writing) is: In what ways might these ideas inform my understandings and choices? In former times I used to read academic writing in order to try to understand and recall what the author was saying and how the ideas being expressed related to other ideas expressed by other theorists. I saw myself as an apologist, outside the loop of understanding, trying to interpret the texts in the correct way. My reading of postmodernism has changed all that: I now understand that all reading is interpretation. But, more than that, the pragmatic insight is that different readings lead to different consequences, and the pragmatic question emerges: Given all that we now understand about our worlds, how might we choose to act, and what are the likely consequences of our various choices? How might we visualise, and strive to create the kinds of future we (collectively) would hope for? How might we collectively formulate the dreams we can realistically strive for?

Reflective practice and action research are two existing approaches to educational research which attract teachers who have a pragmatic inclination to research their own classrooms in relation to their own praxis. I argue that, even though each of these approaches has origins which are critical and pragmatic, neither adequately addresses all of the issues I am raising here; each tends to be sucked into consideration of technical issues surrounding the specific investigation in hand, and each tends to be applied only for the life of the specific project in which they are implicated. In chapter 4, I discuss my choice to teach a course where teachers are required to use strategies of reflective practice. I argue here that the importance of using such strategies is to promote discussion among the participants: it is

through discussion about the implications of practice that teachers come to understand how their own practices, and those of their peers, might perpetuate social inequities. By coming to listen more carefully to the voices of the students, and the voices of their own past experiences as well as voices from the literature, the teachers are able to see their practice through different lenses. They are able to ask questions about how they might act differently, if they so chose. They might begin to wonder about the likely consequences of those different actions, and they might attempt to bridge the gap between where they are now, and where they might wish to be.

Why practice?

Practice reminds me that, despite my calls for collectivity, for praxis, for lenses of complexity and of pragmatic theory, a fundamental responsibility of a teacher or researcher is individual and task-related: practitioners have responsibilities which we need to carry out with a certain amount of individual autonomy; no matter how much we may have our understandings shaped by our environment, no matter how much our realities might be seen to be socially constructed, we still need to meet deadlines and complete specific activities in particular ways. While I am calling for a greater understanding of the ways in which we, collectively, might address specific social problems, by referring to "practice" I remind myself, and my readers, that material and social realities of tomorrow's teaching constantly and persistently impinge upon the thinking of an individual teacher. During times when I have an intensive teaching load, I cannot focus attention on broader ideals. Most caring school teachers who have inherited only twentieth century psychologically based theories of learning and ontologically uncritical (Sacks, 2000)⁸ understandings of

Sacks (2000) argues that, for investigations into the experienced nature of the physical world, an *uncritical ontological commitment* is required since it is the task of science to formulate representations of reality. An *ontologically critical* stance, on the other hand, questions all representations of reality: within *inquiry at the critical level* the possibility of any knowledge of an ontological base is denied.

Both commitments are necessary; they serve different purposes. An uncritical ontological commitment is a necessary pre-requisite of the critical stance.

What we have, then, are two hierarchies, both of which can be said to aim at insight: one appropriate to the first, uncritical level of inquiry, the other ushered in once the critical turn has been taken and we realise the fictional force at work in the ontological commitment. (Sacks, 2000: 321)

⁸ Gloss on Sack's distinction between *critical* and *uncritical* ontologies

social organisation do not have the opportunity to theorise in ways that might move schooling forward as they would wish. I argue that many school teachers are unable to address such broader issues not only because of the intensity of their workload, but also because of systemic factors to do with the way in which knowledge is constructed in our society. I discuss this further in chapter 4.

The practical knowledge of teachers is an area deserving of study in the form of self-study by teachers (Bullough & Pinnegar, 2001). Kane *et al*, (2002, below: 57) highlight the importance of self-study as a promising area of future research. Snow (2001) argues that the:

... reflections of skilled practitioners in any field deserve to be systematized so that personal knowledge can become publicly accessible and subject to analysis. (Snow, 2001: 3)

Anderson suggests that if the purpose of research is to transform practice for the benefit of students, then legitimate research for practitioners would build upon the existing communities of critical inquiry that many teachers have struggled to create in their schools.

Through research, school practitioners can begin to talk back to those politicians and corporate leaders who have made them the scapegoat of current school reform efforts. (Anderson, 2002: 24)

The problem of just how to integrate pedagogy and methodology within the constraints of a school day remain to be solved: my observations are that current solutions tend to call upon those teachers who are already engrossed in their teaching to devote even less time and energy to the important activities of family life, relaxation, and creativity.

Practice refers, also, to the ways in which teachers act, pragmatically, to balance short term demands and long term goals. In the discussion of pragmatism in chapter 3, I draw a distinction between constrained pragmatism which refers to the need to act in ways that deal with current structural necessities, and creative pragmatism which refers to the possibility of choosing to act in ways that are unexpected or which open up fresh possibilities. *Creative pragmatism*, as I define it, is not thoughtless action; creative pragmatism is more akin to political action where the intention is to find ways to challenge and distort hegemony and those structural pressures and power plays that constrain us; creative pragmatism contains an ethical element and is the secret weapon of democratic reform. But time is needed, time and collectivity so that perspectives other than one's own current understandings might continue to blend and clash in ongoing interactions.

How do I attack this task?

I have clearly undertaken a daunting task in trying to relate postmodernism, complexity theory, and pragmatism to my practices as a teacher and teacher educator. I argue that this relation is important, politically, in order to inform future praxis (both personal and collective praxis: affecting both action and theorising, and in the interests of social justice). The momentum of this project has been maintained because of my interest in how social and educational theory might relate to teaching and to educational practice, yet I have constantly been aware that, in order to draw out fresh understandings I need to explain myself in ways that are not usual within thesis writing.

In support of the need to write creatively

Just like the clock maker metaphor of the Enlightenment, or the dialectical logic of the nineteenth century, the emergent worldview belongs to this moment in time, shaping our thought habits and colouring our perception of the world. (Johnson 2001: 66)

I seek ways of writing that open up fresh opportunities for the reader to interact with the ideas I am seeking to clarify. I need to write without seeking closure. I do not aim to report on the findings of my discussions, except rarely, and in relation to the themes I have already discussed. Yet I become deeply immersed in discussions of academic theory when the expectation would be that I would state my position so that debate might flow from that. I resist this expectation. Instead, I recognise that my position changes, depending on the argument or discussion I am immersed in. I recognise the idea that understandings are located within the communities to which I belong, and that as agent I am able to promote or undermine particular understandings through my actions and my words. I do not want to make choices about which idea I will promote before I need to, yet I am able to promote different ideas only if I have access to them.

How then, might I, and the communities to which I belong, keep ideas floating so that we can select from them, judiciously and in context? How might we keep a million tons of water in the air? The answer is to diffuse it: create a cloud. (This imagery is not original, but lost, somewhere, in the mists of my reading.) The answer, in social terms, is somehow related to a shift from rules to principles, where principles are much more flexible than rules. Within this model, accountability implies the ability to account for one's actions, given all the circumstances; accountability does not require adherence to prescribed rules, rather it opens up the possibility of independent action. The answer is something to do

with creating a cloud of values and ideals within which a collective or a society operates. Letting off steam, in this metaphor, is a very healthy process because it breaks down implied tensions and opens up space for fresh conversations.

In a complex postmodern era, the ability to understand different positions and weigh up different interactional possibilities is, I argue, more important than the need to have settled on a particular theoretical position. Indeed, settling on one position at any time before it is required (in the sense that constrained pragmatism requires action at a particular time) is premature. By remaining flexible, we continue to be able to adapt to changing pressure in our environment, and we are better able to recognise and respect opinions that are different from our own. The enemies of democratic progress, under this construction, are silence and inflexibility.

Therefore my aim is to seek both voice and flexibility. My aim is to seek how these things might be fostered collectively within networks of shared interest. My aim, therefore is to write in ways that invite conversation, not in ways that define "my" fixed position (such fixed positions would, I suggest, invite dispute where the options for my reader are to disagree, or agree, rather than to complement and build upon the discussion; beyond that, "my" position suggests that I exist in a way that is autonomous, and I question that assumption). This argument is easily challenged within an academic community where the parry of dialectic debate is common. Less so, I suggest, in other communities which might bow in silence to the authority of the academic voice. I seek to write in a way that does not silence those communities, but rather opens out fresh discussion by floating models, and understandings which might enable different perspectives to be shared.

In support of various conventions and perspectives

I seek to expand communicative possibilities:

In the face of pressing problems around language, knowledge, and power, across multiple publics and diverse levels of intelligibility, how might we expand the possibilities of different ways of writing, reading, speaking, listening and hearing? (Lather, 2000b: 294)

I use a variety of glosses, exhibits, diagrams, cross referencing, tables of contents and the indices, and have, in the interests of clarity, retained many conventions while troubling others.

In the interests of writing clearly and at the same time seeking to trouble convention, I have experimented with a variety of tools: I have created linkages which allow the reader to take multiple pathways through the text. The result is a text which talks back at itself in places, it takes risks and it experiments with forms of writing made possible by Lather and Smithies (1997) and others who strive to "move toward practices of academic writing that are responsible to what is arising out of both becoming and passing away." (Lather 2000a: 307)

Lather refers to such writing (calling upon Deleuze and Guattari, and Serres) as rhizomic writing: "an open trajectory of loose resonating aggregates, [which] trace how the space of knowledge has changed its contours" (Lather, 2000b: 302). She calls on an audience with ears to hear, and she seeks response data of her readers. She seeks to "operate from a textual rather than a referential representation, from persuading to producing the unconscious as the work of the text, working the ruins of confident social science as the very ground from which new practices might shape" (ibid: 303).

I seek similar ends: I see this work as a moment in a conversation, rather than a fixed end point.

Glosses Because the thesis touches on such a wide range of topics, I have included glosses which signal the context of references which are not discussed in detail. This supplementary material is glossed in footnotes at the bottom of each page, and cross-referenced in the index.

Cross-referencing I seek to develop a new vocabulary; I seek to describe lots and lots of things in new ways, in order to create a "pattern of linguistic behaviour" (Rorty, 1995, below: 45). By cross-referencing (as illustrated in the previous sentence), I allow the reader to recognise links among different threads of my discussion.

Exhibits and appendices In order to provide illustrations and additional detail I have included exhibits (rather than figures and tables) and appendices which at times invite conversations that are beyond the scope of the text. This strategy is in recognition of the unruliness of knowledge, and in the hope that different diversions will attract different readers.

Tables of contents In recognition of the complexity of each chapter I have taken care that tables of contents act as summaries of each chapter: exhibits are also listed within the tables of contents.

The index The index tends to be idiosyncratic in that it seeks to provide links among those terms that are important to the argument of the thesis. Words or phrases that appear in italic writing in the text commonly (but not always) appear in the index: the exceptions occur where I have used italic text for emphasis, or to name texts by their titles.

Proper names in the index. Where entities (real or imaginary) are given proper names within the text, they consistently appear in the index. With some sadness I have deleted all given names of the authors of published texts from the body of the document (but include them in the index): saving space in an already very long thesis was my pragmatic guide.

In support of dictionaries and encyclopaedias

Both dictionaries and encyclopaedia have been important resources in this study. Eco (1990) writes about the use of encyclopaedias in Twin-Earth (which is "a fictitious planet ... a popular stopping-off place for philosophers en route to meaning and mental content" (Heil in Audi, 1995: 816)):

Even though for any specific purpose my masters use specific encyclopaedias, in the course of their everyday interactions, they use E.15, a sort of rough encyclopaedic summary which provides a stereotypical list of interpretations for every expression - referring for more specific information to more local encyclopaedias. (Eco, 1990: 267)

I see dictionaries as "stereotypical list of interpretations" and encyclopaedia more as local sources of more specific information: Eco (1984) evokes images of the encyclopaedia as net, rhizome, map and labyrinth (Lechte, 2003: 57). My point is that, as knowledge expands and becomes more specialised, encyclopaedia become increasingly important in providing access to understandings, pointing readers toward more detailed literature, and providing authoritative summaries of locally agreed (specialist) knowledge. Yet care is needed because of the bias implicit in any assembly of knowledge: the feminist dictionaries provide insights that are largely missing from encyclopaedia of philosophy or sociology, for example. The following "more local encyclopaedias" have allowed me to investigate diverse understandings.

```
The Cambridge dictionary of philosophy (Audi, 1995);
```

The Collins dictionary of sociology (Jary and Jary, 1991);

The dictionary of feminist theory (Humm, 1995);

Key contemporary concepts: from abjection to Zeno's paradox (Lechte, 2003);

The Pooh dictionary (Melrose, 1995);

```
The Penguin dictionary of politics (Robertson, 1993);
```

The Penguin dictionary of philosophy (Mautner 1996);

The Penguin dictionary of sociology (Abercrombie, Hill & Turner, 2000);

The Routledge critical dictionary of feminism and postfeminism (Gamble, 2000);

A Dictionary of the Māori Language (Williams, 1971);

The Macmillan Encyclopaedia (1997 Edition) (Isaacs, 1996);

Encyclopaedia Britannica Online (CD Multimedia Edition) (Britannica, 1999).

In support of oral traditions

Knowledge does not reside only in books: where I have referred to knowledge of things Māori (both Te Reo (the language) and Tikanga (ways of doing things)) I have sought comment from friends, family and colleagues. I thank Puamiria Parata-Goodall (Kai Tahu), Bronwyn Thurlow (Kai Tahu), and Gipsy Foster (Ngāti Porou) for their ongoing advice and support in helping me to understand.

Wisdom does not reside only in written text, it also emerges in conversations and in praxis: when I refer to insights that have emerged in conversation I use only given names and refer to *voices*, for that is where wisdom consolidates in practice, in association with the voices of family, colleagues and friends. I thank (in addition to those already named) many other Companions who have shared and are sharing this journey.

Understanding emerges in future conversations. Wittgenstein writes:

If someone is looking for something and perhaps roots around in a certain place, he[/she] shows that he[/she] believes that what he[/she] is looking for is there. (Wittgenstein, 1969: §285)

The problem is to figure out what it is we are looking for: I seek collective wisdom about that.

In support of my voice as a teacher

As I write, I am aware of Boyer's (1990) argument that doctoral candidates and other post-graduate students "be challenged to see the larger consequences of their work and help reconnect the academy to society" (Boyer, 1990: 70); I recall Schön's (1987, below: 71) challenge to reflective practitioners to relate the academic high ground to the swampland of practice; I note Apple's (2000) criticism of *stylish politics* of postmodern theoretical

writing which fails to be accessible to those it seeks to serve⁹, and I wonder at how I might write so as to bridge these kinds of gap.

In chapter 4 for example, where I discuss reflective practice, I wonder to what extent reflective practice is influenced by critical theory and by postmodern theory, and how these perspectives might be made more accessible to teachers. I argue that if these lenses are not applied to it then it is in danger of becoming narrow and distorted. It is in danger of losing its critical edge.

There is a fundamental flaw in this thesis, one which I cannot resolve, because a thesis is required to be an individual piece of work and I am writing about collective praxis. I am required to separate theory from practice in ways that seem tortuous. The ideas I have been developing have emerged within countless conversations with friends and colleagues. I have distilled these discussions and blended them with more conversations about the ways my ideas gel with those of others. This process enables me to claim a voice which is worthy of sharing with others through this thesis. I do have insightful understandings of the ways in which various aspects of the education system work, and the ways in which it might work differently. Henceforth, I shall cease to be overly apologetic about my calls on experience: I write in the full understanding that other praxitioners may view things differently and I look forward to the ongoing debates that these differences will inspire. For this reason, I call this a pragmatic thesis - it looks toward ongoing larger conversations which might affect the ways in which education comes to be understood and practised.

⁹ Gloss on Apple's critique of "stylish politics"

When, as an emerging researcher, I wish to justify novel ways of writing about my research, ways that break the boundaries that appear to surround academic writing, I look to the work of other researchers. Lather (and others, such as Giroux) provide examples of approaches which break these boundaries. These have, however, been criticised for their "stylistic politics" (Apple, 2000: 247), which force the reader to do all of the work thus distancing their theory from practitioners:

The discourse of critical pedagogy in its Freirean and feminist forms has increasingly been influenced by postmodern theories. While this has proven to be very useful in reconceptualising the field and its politics, it has also opened up the discourse to the criticism that it has become too theoretical, abstract, esoteric, and out of touch with the conflicts and struggles that teachers, students, and activists act on. (Apple, 2000: 247)

He is right, many of the texts I call upon are alien to teachers and others: this does not imply that the texts are bad, nor that teachers are ignorant. It does suggest, however, as (Boyer, 1990) argues, that *integration* (for example the work of Hawking (1988) and Gleick (1988)) is valid as a field of scholarship: I have, in this thesis, picked up the challenge of trying to interpret postmodern theory in ways that might make its ramifications more accessible to a wider audience.

In support of multiple writing styles and tools

Throughout this complex thesis I seek to offer the reader some security by adding glosses to clarify the sense in which particular words are used, and by indicating, using italics, that particular words appear in other places where they may be discussed in more detail or where their meaning may be adapted because of the way they are used. The index is therefore a key tool to be used when reading this thesis. It is possible that the reader may choose to dip and dive through the text by following alternate paths.

I use imagery, models, analogy, and metaphor, extensively. I do this consciously, in the hope that the reader will see ideas from a variety of perspectives, and find that the text says more than I could ever hope to write.

The result could, at times, appear disjointed, certainly uneven. So be it, life is like that. Where there are inconsistencies, they may promote future debate, where a word emerges alongside the discussion it may be glossed more than once so that understandings of a word may change as they evolve. Words do not have clear and precise meanings, as Wittgenstein (1953) showed in his discussion of family resemblance, and as assumed by postmodern and post-structural scholars: I do not attempt to give precise definitions, but rather to use emerging words in many ways, and I have tried to leave meanings flexible so that understandings might evolve, and so that later discussions might alter, but not upset, earlier constructions.

The writing is experimental in places, influenced by those authors (Lather (1997, 2000b) stands out) who have challenged the constraints of academic writing, yet I have erred, always, on the side of clarity: because the arguments I discuss are complex I have used all the resources I can muster to make textual sense of them. I have adhered to convention unless I had reason to do otherwise, and exploited the options already available within conventional forms of text: thus a cacophony of footnotes, endnotes, appendices, reflections, exhibits, diagrams, text boxes, and the like appear in ways that serve the interests of my story, and the future stories that might eventuate from various readings of this text.

Chapter 1 Philosophical shifts in unruly directions

Introduction: Toward social change		42
Section 1.1	Philosophical shifts toward new understandings	42
Section 1.2	Toward interesting philosophy and a fresh vocabulary	44
Ra	orty and interesting philosophy	45
•	Exhibit 1.2.1 Rorty's "interesting philosophy"	45
Sh	ah and the changing of the waters	45
•	Exhibit 1.2.2 Shah: When the waters were changed.	45
A	half-formed new vocabulary	46
Section 1.3	Toward philosophical and pragmatic wonderings	51
Su	bstantive issues	52
•	Exhibit 1.3.1 Pragmatic Wondering: Substantive Issues	53
To	ward collective research into collectivity	55
•	Exhibit 1.3.2 Pragmatic Wondering: Toward collective research into collectivity	55
Co	oming to voice, collectively	60
•	Exhibit 1.3.3 Pragmatic Wondering: Coming to voice	61
Section 1.4	The challenge of unruly knowledge	64
•	Exhibit 1.4.1 Reflections on my own discomfort with participatory action research	67
Va	ice and silence	68
Section 1.5	Lost in a Good Thesis	73
•	Exhibit 1.5.1 Lost in a Good Thesis	73
A	reflection on "Lost in a Good Thesis"	74
Section 1.6	Toward unachievable equilibrium	78
Н	ofstadter's tangled hierarchies	79
•	Exhibit 1.6.1 Hofstadter and Escher: in support of multiple worlds and tangled hierarchies	80
•	Exhibit 1.6.2 Diagram of a single never ending loop that seeks an unachievable equilibrium	81
$B\iota$	rr: both/and and either/or	81

The philosophers have only interpreted the world, in various ways, the point however, is to change it.

(Marx, 1845, *Theses on Feuerbach*, XI)

Up to now, the philosophers of emergence have struggled to interpret the world.

But they are now starting to change it.

(Johnson, 2001: 21)

Introduction: Toward social change

The changes I discuss and advocate are *philosophical shifts*, or shifts in understanding, emergent shifts where the new develops out of, and remains embedded in, the old. Given the variety of understandings that populate our collective thinking, decision making has become challengingly complex. In an era when we recognise plural truths and many value systems, how do we act and what value systems do we call upon in order to make our choices of how to act? Social changes can be planned and imposed by a minority, or they can emerge through the collective actions of a majority: in either case, tensions remain as some voices are heard and others silenced. The philosophical shifts I promote are ones which may assist us in developing collective understandings which may shape our actions and decisions.

Section 1.1 Philosophical shifts toward new understandings

Within this chapter I collect together evidence of *philosophical shifts*, or emerging changes in patterns of thinking. I foreshadow the idea that similar patterns of change occur at many levels, within the individual, within groups, within societies. The patterns I comment on are, I argue, at the heart of all cultural change: the overall pattern I describe is one where emerging ideas permeate existing layers of understanding and change them subtly, so that the alteration may be barely discerned, yet change occurs. In later chapters I discuss ways in which these incremental changes might accumulate and become patterns within *collectives*¹⁰ and across communities, but for now, my aim is to tempt the reader to understand my contention that social change can usefully be thought of in terms of philosophical change and the emergence of new understandings.

¹⁰ Gloss on collective

COLLECTIVE Term used to describe a group of people working together for mutual support or advantage (and a key feature of socialist societies), the contemporary feminist use ... first appeared in the 1970s. Women rejected the hierarchical, authoritarian and undemocratic manner in which male-dominated organisations were usually run. (Gamble 2000: 206)

While there is a shared interest or mutual support within a collective in the sense in which I use it, there is no assumption that views will converge: collective research is different from collaborative or co-operative research where people work together to produce shared outcomes. A collective focuses on a shared issue, it may generate wildly different approaches to researching or addressing the issue, but it values these differences because they open up new ways of addressing the central concern or research issue of the collective endeavour.

Toward connotes *change*, yet change is, at times, a deceptive notion. Change cannot be identified if there is no pre-existing pattern. If we change a school timetable, then we tell people what has altered for them (we tell the students to go to science, not maths, in period 4). The infrastructure (by which I mean the buildings, the resources, the staffing, the curriculum, the rest of the timetable) is largely unaltered while we focus on this particular change. I argue that, when we consider change, and the possibility of implementing planned changes, it is important not to forget the enduring nature of existing structural patterns.

Discussions about social change, or attempts at social engineering, do not always recognise the extent of the structural stability in which they are located (in other words, "old habits die hard"). Even revolutionary change does not eliminate the effects it destroys: forests reappear after earthquakes have destroyed landscapes, and hierarchies emerge again after socialist revolutions. When I consider change, therefore, I choose to consider also those things that are unchanged, and seek to build a way of understanding how those things that are emerging and those things that remain might be brought into equilibrium. Metaphorically, this is a move beyond a tendency toward idea consumerism (where that which is old or used is thrown out thoughtlessly), to a more conservational approach where ideas are judged according to cultural values other than mere age or novelty. Change challenges us to reconsider assumptions, and we may choose to act differently from the way we have in the past, but it would be wrong to infer that moves in a particular direction deny completely the value of the position we move from.

By attempting to understand the systemic patterns of social organisation, I seek to illuminate how the assumptions we make, perhaps unknowingly, affect our ability to adapt and change as we set out to address social inequities.

While this chapter refers to varied literature it does more than report on the lenses I find there; it also illustrates my yearning to be able to influence the direction of future social change by expanding people's understanding of current theories about the interrelation of action and the environment. In this way, I strive for *unachievable equilibrium* (Morrison, 1998 (above: 27): I strive to influence people, collectively and in principle, in support of shared cultural values, yet I strive not to influence people individually, based on personal assumptions, in ways that might close down the possible differences in the values and perspectives of others. *Unachievable equilibrium* is a phrase that reminds us that, through

the lens of self-organising systems, equilibrium is established only through continuing to balance out those tensions which constantly emerge within the system; it reminds us of dynamic theory; it reminds us that there is no static Utopia, and of the need to learn to live with change and flexibility and, as I have argued above, to recognise and value, at the same time, those things we treasure and assume. When we seek a philosophical shift and the emergence of new understandings in order to address a social problem we have identified, we strive for *unachievable equilibrium* between our past *taonga*¹¹ (treasure) and our future *taonga*.

The notion of striving for *unachievable equilibrium* is articulated within philosophical debates related to past and future social and cultural values. I seek to widen this debate to include those whose voices are currently silenced: I suggest that the debate needs to be a collective one that extends far beyond the walls of academia; the debate needs to include diverse voices; the debate needs to shift beyond an individualistic conception of autonomous expertise and knowledge toward more dynamic understanding of the ways in which we are all enmeshed socially in shaping our collective futures.

In the sections that follow I argue, as does Rorty (1989), that new vocabularies emerge as ideas change and we begin to think afresh, and I introduce some of the philosophical shifts that echo through this thesis. I conclude by introducing a model I use to represent the idea of *unachievable equilibrium*.

Section 1.2 Toward interesting philosophy and a fresh vocabulary

One aim of this thesis is to open up, "holistically and pragmatically" (Rorty, 1989 (below: exhibit 1.2.1)) the possibility of new and interesting questions, new vocabularies, new research equipment, and thereby new social institutions. The discussion which follows is based upon two substantial quotations: the first is from Rorty who points out the need for *interesting philosophy* to find fresh modes of expression, fresh questions, fresh lenses; the second quotation is a story from classical Sufi writing. The quotations are similar, I argue,

11 Gloss on taonga

Taonga (Māori) refers to anything highly prized (Williams, 1971). The word connotes spiritual and cultural values as well as property. *Taonga* are treasured.

in that each of them suggests that by changing our philosophical understandings we affect the ways in which we choose to act; further, they suggest that by changing the ways we act we come to alter our philosophical understandings.

Rorty and interesting philosophy

Exhibit 1.2.1 Rorty's "interesting philosophy"

On the view of philosophy which I am offering, philosophers should not be asked for arguments against, for example, the correspondence theory of truth or the idea of the "intrinsic nature of reality." The trouble with arguments against the use of a familiar and time-honoured vocabulary is that they are expected to be phrased in that very vocabulary. ... Interesting philosophy is rarely an examination of the pros and cons of a thesis. Usually it is, implicitly or explicitly, a contest between an entrenched vocabulary which has become a nuisance and a half-formed new vocabulary which vaguely offers new things.

The latter "method" of philosophy is the same as the "method" of utopian politics or revolutionary science (as opposed to parliamentary politics or normal science). The method is to describe lots and lots of things in new ways, until you have created a pattern of linguistic behaviour which will tempt the rising generation to adopt it, thereby causing them to look for appropriate *new forms of non-linguistic behaviour*, for example, the adoption of *new scientific equipment* or *new social institutions*. This sort of philosophy does not work piece by piece, analysing concept after concept, or testing thesis after thesis. Rather it works *holistically and pragmatically*. It says things like "try thinking of it this way" - or more specifically, "try to ignore the apparently futile traditional questions by substituting the following new and possibly interesting questions." (Rorty 1989: 8-9, italics added)

Shah and the changing of the waters

Exhibit 1.2.2 Shah: When the waters were changed.

Once upon a time Khidr, the Teacher of Moses, called upon mankind with a warning. At a certain date, he said, all the water in the world which had not been specifically hoarded, would disappear. It would then be renewed, with different water which would drive men mad.

Only one man listened to the meaning of this advice. He collected water and went to a secure place where he stored it, and waited for the water to change character.

On the appointed date the streams stopped running, the wells went dry, and the man who had listened, seeing this happening, went to his retreat and drank his preserved water.

When he saw, from his security, the waterfalls again beginning to flow, this man descended among the other sons of men. He found that they were thinking and talking in an entirely different way from before; yet they had no memory of what had happened, nor of having been warned. When he tried to talk to them, he realised that they thought he was mad, and they showed hostility or compassion, not understanding.

At first he drank none of the new water, but went back to his concealment, to draw on his supplies, every day. Finally, however, he took the decision to drink the new water because he could not bear the loneliness of living, behaving and thinking in a different way from everyone else. He drank the new water, and became like the rest. Then he forgot all about his own store of special water, and his fellows began to look upon him as a madman who had miraculously been restored to sanity. (Shah 1967: 21)

This writing presages the notion of a paradigm change and highlights the idea that, if one does not adhere to current ways of thinking then one can be viewed as mad. I advocate a *changing of the waters* in relation to the way we view praxis in teacher education. I take a *changing of the waters* to refer to a change in theoretical perspective without any immediate or prescribed changes to educational structure or activity. It is the change in perspective itself which opens up interesting, practical-yet-revolutionary philosophies.

A half-formed new vocabulary

In this section I introduce some of the vocabulary that is fundamental to this thesis. My aim is to describe lots of things in new ways (by calling on and reinterpreting existing explanations) in order to create a specific pattern of linguistic behaviour that might be echoed and extended by others. I emphasise some phrases by using italics, and I use them several times, as can be seen in the index, to reinforce the notion that new vocabulary is formed through repeated use of emerging ideas, and new ways of speaking and acting emerge through practice and use.

I juxtapose Rorty's appeal for an *interesting* (or *ironic*) *philosophy*, where *a half-formed new vocabulary* offers new articulations, with Shah's myth of the *changing of the waters* in order to highlight the philosophical changes that are occurring in our times. New analyses of imperialism and injustice, power and resistance are echoing through the literatures of serious journalism and the academy.

If the twentieth century came to be characterised as the struggle between freedom and tyranny ... the new century is already shaping up for a different kind of confrontation: unfettered capitalism versus universal human rights. It would be easy, after the terrorist attacks on the

US, to lose sight of this fact and accept instead the tendentious 'clash of civilisations' analysis - the West versus Islam - ... Yet it would be closer to the truth to see the events of 11 September as a manifestation of the contempt for life common to all forms of fundamentalism, and evidence of the need to understand its origins in imperialism and economic injustice. (Smith, 2002: xx)

The political lesson of 11 September is all too clearly embodied in Foucault's maxim that power creates resistance, and resistance new forms of power: B-52s and cruise missiles on the one hand, suicidal fanatics and box-cutters on the other. (Ibid: 214)

The battle between unfettered capitalism and universal human rights is played out not only in foreign places but also, daily, in our communities and our classrooms. The battle is carried forward in the ways we interact with each other, in the ways we treat beliefs that are different from our own and in the ways we care for our young people.

My argument is that if teachers are to act as agents of social change within this battle for universal human rights then there needs to be a changing of the waters with regard to educational theory and practice: what would once have been seen as madness needs to be viewed as sanity; we need to begin to think and talk in a way entirely different from before. Yet ironically, I am not advocating massive changes to educational theory and practice as it currently exists; I do not have a grand theory of how to restructure education, nor do I wish for one. We are already immersed in such changes. The need now is to rationalise such changes, to make sense of them, to theorise about them, but not to impose any kind of The challenge is to find ways to recognise and value pluralism and grand model. difference, and (something even more difficult) to come to distinguish also what is not acceptable in a plural society (for example, torture or mutilations of the human body which may have traditional value in some cultures but are abhorrent in others). The changing of the waters that I advocate is a shift of focus from adherence to a search for universal truth to a search for universal justice: this involves a recognition that the search for truth is only part of a larger, more important quest regarding values and morality, and means by which we might make just decisions.

The questions are notoriously difficult. If we contest the dominance of "unfettered capitalism" over "universal human rights" would we, on ideological grounds, ban initiatives where children in poverty-stricken areas are trained in highly technical information and communications technology (ICT) skills in the hope of future

opportunities? No: I argue from the perspective of education as a *self-organising system* in which each participant is in a networked relationship with complex communities of influence, that each responds in various ways to the pressures that surround it; for any individual to impose an ideological solution is to distort the system, yet all individuals have a responsibility to participate in decision making. Any ideological stance is subject to critique.

Substantive issues (or important social questions), and their resolutions (or the strategies we use to attack them), are based on the interests of networks, communities and societies. Much has been made, within Western societies, of the importance of the individual: selfish individualism is the downside of this focus. I call upon *social constructionism* to argue that more effort is needed to focus on how individuals might work within communities to create new social structures and understandings about human agency and creativity. I argue that when substantive issues are addressed by collective, rather than individual, action then social change or reconstruction occurs.

I coin the word *praxitioner* and use it to refer to the practitioner in any field who focuses not just on practice but also on issues of praxis; praxis implies both the linking of theory with practice (as opposed to action that is guided by uncritical habit) and a commitment to action in support of social justice. A praxitioner works in consultation with a diverse community and has a commitment to keeping conversations going rather than closing off discussions. A teacher who acts as a praxitioner researcher will work in association with other praxitioners who will be investigating related problems (perhaps policy makers, educational researchers, parents, welfare agents). This represents a subtle change in hierarchy in that each of the researchers works with colleagues who have other specialisations, in reciprocal learning situations - none is subject to the other. construction of a variety of meanings around terms like praxitioner, praxitioner pedagogy, praxitioner research and collective research, collective pedagogy and collective praxis is central to this writing. I recognise that meaning cannot be precisely defined, so that, rather than defining these terms tightly, I work toward their emergence as useful constructs within this thesis. In this I call upon observations about family resemblances*12, from Wittgenstein.

There is another sense in which the changing of the waters that I advocate is not dramatic: many of the things that I am writing about are not new so that my arguments favour a

change of focus rather than a revolution. I call upon *pragmatism*, for example, which looks toward consequences of action or thought, and question why this term has come to be used predominantly to describe choices that are of short-term benefit and perhaps ill-considered or hasty. I refer to this as *constrained pragmatism* and contrast it to *creative pragmatism* which pays wide-ranging attention to the long-term consequences of choices made in testing situations.

In order to overcome what I see as too great an emphasis on empiricism, I call on the philosophical technique of a *thought experiment*: I argue that a thought experiment is, strategically, a very useful tool for a teacher. My concern with empiricism is, again, one of focus: empirical research can, should, and must *inform* teacher decision-making; empirical research is an important tool for identifying patterns and assumptions within existing practice, and for opening up fresh possible approached to "wicked" (gloss 6, above: 22) social problems. Thought experiments have the potential to *inform* teachers' theorising and thereby enable them; in contrast, exhortations for teachers to *apply** theory to their practice have a link to transmission theories of knowledge construction, and hint at the idea that teachers ought to do as they are told by those who know better.

I argue secondly for recognition of the *ongoing conversation* as a research technique within collective, pragmatic research into teaching and teacher education. The constraints

¹² Gloss on family resemblances

When we look at members of a family, we can see that they can have certain features in common, like facial features, colour and type of hair, gait, temperament, manner of speaking and so on. (Heaton & Groves (1994: 126)

The notion of family resemblance is central to Wittgenstein's denial of the idea that a word can have a specific, essential meaning.

The notion is crucial to Wittgenstein's attack on essentialism, the view that there must be something common to all instances of a concept that explains why they fall under it. (Glock, 1996: 120)

"Because the word is uniform in appearance," explain Heaton & Groves (1994: 126) "we assume it refers to a uniform entity about which we can generalise." We forget that the application of the word varies each time the word is used. Wittgenstein illustrates his argument with reference to games:

board-games, card-games, ball-games, Olympic games, and so on. What is common to them all? Don't say: 'There must be something common, or they would not be called '"games" '- but look and see whether there is anything common to all. ...

I can think of no better expression to characterize these similarities than 'family resemblances.' (Wittgenstein, 1953: §66-67)

of teaching restrict opportunities for unbroken consideration of theoretical issues, yet teachers can, and do, regularly call upon a raft of theoretical propositions in their work: through ongoing conversation with researchers and among a variety of educators, I contend that fresh knowledge emerges which, if disseminated, would inform other *ongoing* conversations among teachers.

By calling upon pragmatism and challenging various forms of realism I reflect *a post-interpretive philosophical shift* which has emerged with postmodernism, feminism and post-structuralism. This, teamed with insights from *chaos* and *complexity theory*, provides the backdrop for this investigation into possible future directions for praxitioner research within teacher education, in an era when the people of the world need to rally their efforts to oppose ideological terrorism (bullying) of many sorts and at many levels.

The scope for any individual, alone, to take action is very limited, yet when groups of people share similar goals the possibilities for effective resistance to perceived injustice increase: this was evident in Seattle on 30 November 1999 when protesters interrupted the routine summit of the World Trade Organisation (Smith, 2002: 149), and we see it in classroom resistance to certain teaching methods (Knight Abowitz, 2000, below: 226).

In Rorty's words, the challenge is to keep the conversation going: I refer not only to specialist conversations, but to conversations which cross boundaries. Rorty (1979: 377)

Teachers should not be expected to *apply* research, rather we should be *informed* by it, we should read and discuss it, and incorporate ideas based on the findings of others into our own practice. Being *informed by* connotes a relationship where teachers contribute to ongoing debates (they both inform and are informed by research and theory developed by others); the notion of *application* connotes a one way relationship.

The expectation that teachers will *apply* the findings of empirical studies within their practice is, I argue strongly, flawed and damaging: it is based upon hierarchical and restricting assumptions about the status of knowledge and the relationship between theory and practice; it suggests an unthinking acceptance of the truth of such findings; it suggests that the findings of research are infallible, that teachers are ought to receive such findings and incorporate them (apply them) as prescribed rules (paint-by-numbers rules). To *apply* as opposed to be *informed by* suggests that teachers' understandings are of secondary importance; it suggests that all valid knowledge is contained within research findings, it fosters educational fads which have a narrow research base, it supports the simplistic argument that "research says" where the speaker has not questioned the methodological assumptions underpinning the research.

Am I speaking too strongly here? No. My argument, consistently throughout this thesis, is that teachers as active constructors of knowledge and understanding constantly call upon and use theories of many kinds: I seek ways to enhance their opportunities to be informed by theory from all sorts of sources. Teachers need to be informed by theory, they do not need to be told to apply it.

¹³ Gloss on my resistance to the idea that theory can be applied in practice

writes that the point of edifying philosophy is to keep the conversation going rather than to find objective truth.

One way to think of wisdom ... is to think of it as the practical wisdom necessary to participate in a conversation. One way to see edifying philosophy *as* the love of wisdom is to see it as the attempt to prevent conversation from degenerating into inquiry, into an exchange of views. Edifying philosophers can never end philosophy, but they can help prevent it from attaining the secure path of science. (Rorty, 1979: 372)

I investigate how we might come to understand equilibrium (such as the secure path of science) being perpetually unsettled and dynamic within a self-organising network of systems (such as education).

Section 1.3 Toward philosophical and pragmatic wonderings

In this section I introduce the three central conceptual shifts I promote; each relates to the ways in which educational research and teaching practice can be thought of as political activities within a wider programme that promotes democracy and social justice. The shifts I promote are not revolutionary, indeed, for many people (those who teach in liberal ways within a world they perceive in postmodern, pluralistic terms) they may not appear to be changes at all, rather they may appear to be stating the obvious. However, the ideas I introduce are not universally understood within teacher education; further, I suspect that where school teachers do understand these ideas, they are not enabled within current school-based discourses to explore and address them: the ideas are simply too difficult to address; commonly, school teachers do not have enough time, or opportunity, or power, or strategic vision, or energy to react against hegemonic constraints.

I introduce three concept shifts which have emerged within my investigations: each of these is necessary for the development of the ideas that come together in the final chapter, when I discuss the notion of a self-organising collective, dedicated to fostering educational development by working within and fostering existing systems and networks. Firstly, I promote a shift toward an holistic appreciation of the *substantive issues* that trouble societies, both globally and locally, and the ways in which our daily work might influence those substantive issues. Secondly, I promote a fresh look at assumptions about educational research and its various relationships with other sectors of the educational

community, particularly teaching: the shift I promote here is toward *catalytic research*. Finally, I promote a pedagogical shift toward what I shall call, in the meantime, *collective*, *paralogical*, *praxitioner pedagogies*: this indicates a triple shift, or a shift in three dimensions that relate to pedagogical praxis: toward greater collectivity in the pursuit of some goal, toward discourse which is creative and ironic, and toward shared reflexive praxis on the part of all participants. In seeking a shift in the direction of holism, I seek to move beyond current debates within particular interest groups; in seeking to shift in the direction of catalytic research I strive to understand how educational research might better influence social development by working within communities as they strive to address local issues; in seeking a collective pedagogy, I dream of ways in which all participants might better support each other's shared learning. These shifts are complementary, they support each other in focusing attention on ways in which a group can become an entity in its own right.

Substantive issues

The sequence of quotations listed below in exhibit 1.3.1 was designed as a classroom exercise for a situation where a group of educators might come together to establish a new research network. The aim of the discussion would be to identify some of the assumptions under which the network might operate. The questions are designed to lead the reader (the participants in this imaginary discussion) into (a) a particular reading of each quotation and (b) a discussion about the implied logic in the sequence of quotations. The "particular readings" I anticipate are critical readings where the participants call upon their own sources of knowledge to debate the validity of this particular quotation within this context. There is a certain liberal postmodern bias to the selections I have made, yet they contain a political element as well. My aim in juxtaposing them is to open up discussion which cuts through fleeting surface level comment. The sequence of quotations is designed as a starting point for ongoing discussion. The political bias in the quotations points toward a particular form of teacher education, one that is both postmodern and social-reconstructionist in style.

I discuss the thought experiment in more detail in chapter 5. Right now, the important point is that exhibit 1.3.1 opens up holistic questions about how teacher education in particular, and educational research more generally, might focus on substantive issues.

The questions that arise within the exhibit flow from my readings of the texts quoted, and the order flows from the global to the local.

Exhibit 1.3.1 Pragmatic Wondering: Substantive Issues

What are the substantive issues for our generation? Racism? Capitalism? Assessment? Youth culture?

The politics of food production, distribution, and the elimination of hunger, eradicating homelessness, working for the betterment of race relations and against gender discrimination, working for the demilitarisation of the economy, supporting socially responsible businesses and investment practices, working toward the achievement of full employment, or the preservation of the environment. (Liston 1991: 215-6)

Is networking replacing hierarchical leadership?

We are currently engaged in what Margaret Wheatley ... describes as "nothing less than the search for new sources of order in the world". Such an order must accurately reflect our understanding of how the universe works. In recent years, our understanding has come to encompass a vision of life as one great interconnected web - a vision that has erased our hierarchical presumptions. As we come to recognise the dynamic connectedness of the various parts of the whole, top-down structures begin to seem less a reflection of any natural order and more a way of arranging our human world to reflect outmoded perceptions. The emphasis upon top-down power thus continues to be eroded; networked technology reflects and hastens the trend. As organisations adapt to new understandings, leadership will begin to flourish in places we can hardly imagine. (Helgesen, 1996: 24)

Is our culture journeying through chaos?

The more I contemplate these times, when we truly are giving birth to a new world view, the more I realise that our culture is presently journeying through chaos. The old ways are dissolving, and the new has not yet shown itself. If this is true, then we must engage with one another differently, as explorers and discoverers. I believe it will make the passage more fruitful if we can learn how to honour each other in these roles. We can realise that no single person or school of thought has the answer, because what's required is far beyond isolated answers. We can realise that we must inquire together to find the new. We can turn to one another as our best hope for inventing and discovering the worlds we are seeking. (Wheatley 1999: 173)

Can we build tomorrow's schools in today's unequal society?

Although there has been a lot of rhetoric offered in the last few years regarding the creation of "Tomorrow's Teachers" and "Tomorrow's Schools," very little has been said about "Tomorrow's Society" and the kinds of fundamental changes in societal structures and institutions that will be necessary for the realisation of proposed reforms in teaching and

teacher education. We cannot build tomorrow's schools in today's unequal society. (Liston 1991: 215)

What is the role of a social-reconstructionist teacher educator?

[S]ocial-reconstructionist teacher educators need to be active in working on issues that contribute to a fundamental transformation of the economic, social, and political structures in the society, so that all of us and all of our children can have access to decent and rewarding lives. (Ibid: 216)

Much of the current reform literature in teacher education is silent, for example, about the need for any transformation beyond the walls of the school, and the empowerment of teachers to have a greater say in how schools are run. (Ibid: 216)

What is the role of a reflective practitioner in the postmodern world?

Teachers and student teachers will become deconstructive in their readings of educational texts, in their situating of received wisdom, in their creation of values, in their evaluation of courses and of the statements of bureaucrats and politicians. (Parker 1997: 142)

In taking up the postmodern style, educational institutions must repudiate bureaucratic imperatives to embrace the literary enterprise and organise for free textual plurality. (Ibid: 146)

Teacher education courses will need to equip students with the deconstructive manoeuvres by means of which they will be able to throw off the inhibitions of realism and engage in creative, literary writing. (Ibid: 146)

Because these ideas are starters for ongoing discussion, this is not the place, in a written text, to discuss them.

Within this thought experiment, these questions do not constitute a classroom exercise, but instead form a background to discussions aimed at identifying a substantive issue that could be the focus of ongoing research attention within a collective network. I cannot report on the discussions because they are yet to occur; my point is that, questions like these, when juxtaposed, are likely to elicit debate, and the debate is likely to raise interesting questions that would provide a context for ongoing, investigative conversations where people from different ideological positions and who work in different fields of education might continue to interact across their differences.

I use the term *exhibit* even for texts I have created myself because these items are being presented for public consideration as examples, or illustrations, or curiosities. I invite the reader to participate in the task of imagining the possible consequences of presenting these

ideas to a gathering of educators who are setting out to define or clarify a collective linking theme which might be central to their individual, ongoing investigations into future praxis in teaching and teacher education. One central question, in seeking to move "toward collective practice in teacher education" relates to how a group of educators might identify the kind of knowledge they are seeking, collectively, but via different pathways.

Toward collective research into collectivity

I think of the three exhibits in section 1.3 (one you encountered above, and two are below) as *Pragmatic Wonderings*. The term appeals because it disrupts the common, constrained use of the word pragmatism, and it highlights the creativeness of the verb *to wonder*. *Pragmatic Wonderings* are invitations to participants to philosophise or theorise together in ways that will allow them to create shared meanings and shared questions, and to make philosophical shifts in their understandings and therefore in their praxis. The notion that conversation is ongoing allows participants to revisit ideas which may have initially been alien or strange, and to see such ideas in fresh ways.

Following the *Pragmatic Wondering* displayed in exhibit 1.3.2, I shall comment on the choices I made in putting this selection together. My aim is to raise questions about how educational systems might be altered by adjusting the way in which research provides feedback into the educational system. This writing serves two purposes: as well as demonstrating, again, that a *Pragmatic Wondering* is a conversation starter, it also provides an opportunity to point to my emerging understanding of how research might be viewed differently from earlier, more competitive, forms of knowledge construction (see Skyttner (1996) in footnote 6, above: page 22, for example) without attempting to explain in detail something that remains ephemeral.

Exhibit 1.3.2 Pragmatic Wondering: Toward collective research into collectivity

#1 Morrison: Change and reform in education are inescapable.

Change and reform in education are inescapable. Regardless of how one views society, education, as a significant component in sociocultural and economic renewal and development, is caught up in that change. These changes are wide-ranging and question the aims, structure, contents, organisation of schools, schooling and other educational institutions. (Morrison, 1998: 3)

#2 Felder: We need to move beyond ... research practices which foster normalising technologies.

... research practices become normalising technologies when they reiterate assumptions that establish a particular power relation between research and teaching. ... Dedicated researchers are aware of and concerned about the possibility of performance gaps - the degree to which our research practices may inadvertently undermine our educational values. (Felder, 2003: 23)

#3 Lather: Catalytic validity is a measure of the emancipatory power of a research process.

Catalytic validity represents the degree to which the research process re-orients, focuses and energises participants toward knowing reality in order to transform it, a process Freire called "conscientisation." (Lather 1991: 68)

#4 Scheurich: A change in research focus presupposes a philosophical change.

While I applaud ... efforts to develop postrealist approaches to research, it needs to be understood that the development of a postrealist perspective will require a much greater, more extensive philosophical shift, particularly in our basic assumptions about the ways research is conceived and practised. (Scheurich 1997: 162)

#5 Murrell: Successful agents of change have a capacity to learn in the company of others.

... university-based teacher education and the research associated with it are predicated on assumptions about knowledge, teaching, and learning that often diverge from those of low-income, minority parents, as well as "community teachers" whose practice is informed by parent knowledge. ... the "measure of our success as agents for change is not the expertise we bring as university people, but rather our capacity to learn in the company of others. This vision engenders an active disbelief in deficit-based professional practice that targets 'clients' as needy, pathological and incompetent." (Wiener, 2002: 30, quoting from Murrell (1998))

#6 Biesta: Communication provides a pragmatic philosophical alternative to consciousness.

The pragmatic notion of communication presents itself as an alternative for the modern paradigm of the philosophy of consciousness. Pragmatic pedagogy of communicative action can therefore be understood as an alternative for pedagogies If we are willing to agree with Dewey that the mind is not an "original datum" and that psychology and philosophy of original, individual consciousness are indeed "false" ... then there is every reason to explore the communicative structures of human nature and more specifically the communicative dimensions of the educative process along pragmatic lines. (Biesta, 1995: 117)

#7 Wiener: Research-in-practice scrutinises knowledge from the viewpoint of teachers and parents.

... research-in-practice [is] scrutiny of education and research from the viewpoint of teachers and parents concerned with the learning of specific children in a particular classroom and school. (Wiener, 2002: 31)

#8 Anderson: Practitioner research introduces a fresh purpose to educational research.

... some academic researchers have refused to consider practitioner research as appropriately rigorous on epistemological, political or ethical grounds, relegating it to a category of practical as opposed to formal research ... Two reasons frequently given by these authors ... for a lack of attention among academics to practitioner research are (a) the perception of a lack of guidelines for both the quality of and a formalised methodology for such research, and (b) the lower academic status attached to it. A third issue has to do with purpose: Although practitioner research has the goal of knowledge production in common with traditional research, practitioner research has other purposes that recommend it ... (Anderson, 2002: 22-23, italics added)

#9 Kane et al.: Self-study is an area that warrants further research.

What is clear is that further research is needed to make explicit the links between tertiary teachers' espoused theories and their teaching practice so that we can understand better how university academics learn to teach and, especially, so that novice teachers can benefit. One promising area that warrants further research is that of self-study. ... we advocate that future studies be designed to enhance the trustworthiness in the findings. (Kane *et al.*, 2002: 204-5)

#10 Wheatley: Self reference is the key to facilitating orderly change.

Self-reference is the key to facilitating orderly change in the midst of turbulent environments. In organisations, just as in individuals, a clear sense of identity - the lens of values, traditions, history, dreams, experience, competencies, culture - is the route to achieving independence from the environment. When the environment seems to demand a response, there is a means to interpret that demand. This prevents the vacillations, the constant reorganisations, the frantic search for customers and new ventures that continue to destroy so many businesses. (Wheatley 1999: 86)

#11 Johnson: Alter the system so that the feedback loops promote the values we want promoted.

... feedback systems come in all shapes and sizes. When we come across a system that doesn't work well, there's no point in denouncing the use of feedback itself. Better to figure out the specific rules of the system at hand and start thinking of ways to wire it so that the feedback routines promote the values we want promoted. It's the old sixties slogan transposed into the digital age: if you don't like the way things work today, change the system. (Johnson 2001: 162)

#12 Wiener: homeostasis and negative feedback: measure dis-equilibrium and stabilise.

Wiener (1948) coined the term *homeostasis* to refer to the "holding of physiological variables in living systems within certain limits" (Skyttner, 1996: 46). Consider, for example, body temperature in mammals: the body (the system) responds as a result of communication among the parts of the system but also between it and its environment: thus control and communication are closely interrelated.

"Negative feedback ... is a way of reaching an equilibrium point despite unpredictable - and changing - external conditions" (Johnson, 2001: 138). *Negative feedback* refers to the difference between an ideal state and the actual state: *negative feedback* is, thus, a measure of dis-equilibrium, a measure which constantly allows the system to move in the direction of stability. Negative feedback supports homeostasis within living systems.

#13 Mayo: we might shape a new, common sense discourse around teaching and learning.

Given (1) that common-sense discourses indicate what forms of knowledge are commonly accepted within a community or society and (2) that we now understand ways in which we are constructed socially through discourse, and if we also accept that (3) "pragmatism is a discourse that attempts to bridge where we are not with where we might end up", (Cherryholmes, 1999: 3) then it follows that (4) we could, by looking to insights from social constructionism and pragmatism, work toward shaping a new common sense discourse around praxis in teaching and learning. Such a discourse would, like any discourse, be a self-organising system in which collective, ongoing conversations would provide stabilising negative-feedback (see #12, above) mechanisms.

#14 Tom: reinventing master's degree study for experienced teachers.

A conceptual framework for professional development should be based on sound ideas about teaching, learning, and professionalism. Three markers of high-quality professional development are the basis for my framework. ... They entail a view of teaching as ongoing improvement, a commitment to working together collegially, and a focus on student learning. None of these markers is revolutionary, but together they can be a powerful stimulus for thinking about master's degree programming. (Tom, 1999: 247)

In the bullet points that follow I attempt to summarise the key ideas from the above exhibit. My aim is to summarise an argument in support of the need to envisage and articulate discourses of teacher education that are praxitioner oriented, collective, and based upon synthetic (rather than analytic, see gloss 42, below: 210) understandings of knowledge construction. References of the form (#n) refer to the elements of exhibit 1.3.2. By including slightly longer quotations in the exhibit, I attempt to give a flavour or the

original texts which I use within the following. Again, as in the earlier pragmatic wondering, my purpose is to generate text that will promote discussion.

- Change and reform in education are inescapable (Morrison: #1). We need to move beyond ... research practices which foster normalising technologies (Felder: #2).
- A change in research focus presupposes a philosophical change (: #4). *Communication* provides a pragmatic philosophical alternative to *consciousness* (Biesta: #6).
- Such philosophical moves need to promote emancipatory change: successful agents of change have a capacity to learn in the company of others (Murrell: #5); catalytic validity is a measure of the emancipatory power of a research process (Lather: #3).
- Practitioner research in various forms (research-in-practice, self-study, etc.) may serve these purposes. Research-in-practice scrutinises knowledge from the viewpoint of teachers and parents. (Wiener: #7) Practitioner research introduces a fresh purpose to educational research. (Anderson: #8) Self-study is an area that warrants further research (Kane et al.: #9).
- Self-study of an individual, by an individual is the basis of "the modern paradigm of the philosophy of consciousness" (Biesta: #6). To move beyond this into a considering the self-study of a collective (by the collective) raises fresh questions and invites fresh research methodologies, and fresh understandings of social change. Self reference is the key to facilitating orderly change (Wheatley: #10). Negative feedback promotes action that minimises the difference between what we visualise and what we currently perceive (Wiener: #12). We might, therefore, aim to alter the system so that the feedback loops promote the values we want promoted (Johnson: #11).
- I promote the creation of a fresh research discourse surrounding collective praxis (Mayo: #13) and suggest that this goes some way toward (not changing and reforming Morrison that is too intrusive *but*) allowing a fresh research emphasis to emerge, an emphasis that would address, among other things, the need to rethink ongoing teacher education (Tom: #14).

Pragmatic wonderings as tools

The process of juxtaposing quotations and writing text which links them to argue a particular point which is then used as a starting point for discussion has an additional

pedagogical value. By choosing to write in a way that promotes future conversation, I undermine the authority of my choice of text and of my interpretation of the chosen text. In this way I lay my own interpretations open for collective scrutiny: my choices and interpretations serve as an opening for conversations which are both theoretically critical and foster reflection on the implications of post-structural theory (in an era after Barthes' (1968)¹⁴ *Death of an Author*). A pragmatic wondering is, therefore, a tool in the form of a thought experiment, aimed at promoting ongoing conversation.

Coming to voice, collectively

hooks (1994) calls attention to the *voice* of the student. In exhibit 1.3.3 (below: 61) I call on her work and that of Shor (1996), both of whom speak in ways that show how intently they listen to the voices of their students: both recognise a need to foster political voice in their students. *Coming to voice*, as hooks uses the term, implies the ability to speak strategically and politically.

The third *Pragmatic Wondering* refers to the need, within a democratic society, for people to be enabled to have opinions and to speak for themselves. To the extent that schooling fosters silence and conformity it works against this democratic goal. I assume, here, that wherever we see patterns of underachievement and resistance to schooling among various categories of people (for example, by gender, socio-economic status, ethnicity) we have evidence of people being systematically silenced, by which I mean, being silenced by the system as a whole, its structures and its discourses.

In order to address both structural and discursive constraints on "humanity's capacity for freedom" (Jary and Jary, on praxis (exhibit 1.3.3, below: 61)), I argue that collective action of a particular kind is needed. This is collective action which penetrates existing barriers

¹⁴ Gloss on Roland Barthes' (1968) "Death of the author"

^{...}as a literary theoretician, ... [Barthes] is best known for an article first published in 1968 and called "The Death of the Author". In it, he argued that the very term *auteur*, with everything that it implies by way of a writer with a distinct personality which he expresses through his work, should be rejected and replaced by that of *scripteur*, simply *somebody who writes* - a being as impersonal as the letter-writer in cultures with a low level of literacy, a person endowed with the ability to handle a pen and prepared to do so for anybody about him. (Thody & Course, 1997: 105, italics and bold in original)

I see myself as a *scripteur* rather than an *auteur* of this thesis. The voices I introduce the reader to, in the course of my writing, are as varied as the voices of my colleagues. These voices come together to guide me in writing the script.

between theory, research, educational practices, and knowledge construction. One important site of this collective action is the classroom. The quotations I call upon in exhibit 1.3.3 are all designed to raise discussion about how existing classrooms can be viewed as locations where some people learn to be silenced while others learn to have voice. The questions that introduce each part of the Pragmatic Wondering are my own construction, designed to promote discussion.

I would expect discussion around this exhibit to be wide-ranging. It is noteworthy that both writers are referring to classrooms where students resist traditional schooling (e.g. "stressed out working-class students" (Shor, 1996 (exhibit 1.3.3, below)), both are working with students in the post-compulsory sector, both are researchers/theorists/scholars and are expected to publish as part of their paid work, both seek to address the social inequities generated by systemic patterns (by which I mean both structural and discursive patterns), and both focus on pedagogy as a tool. These points would, I imagine, promote discussions about differences between these kinds of setting and others. My point is that the exhibit is a discussion starter - and if the discussion is controversial, so much the better.

Exhibit 1.3.3 Pragmatic Wondering: Coming to voice

In what ways do we teach our students to think critically, to challenge, to confront?

Coming to voice is not just the act of telling one's experience. It is using that telling strategically to come to voice so that you can also speak freely about other subjects. (hooks, 1994: 148)

"You've taught us how to think critically, to challenge, and to confront, and you've encouraged us to have a voice. But how can we go to other classrooms? No one wants us to have a voice in other classrooms!" (Words of students reported by hooks, 1994: 149)

How might we give power to our students?

Shor writes about his experiences of critical pedagogy while teaching "stressed-out working-class students who have come together for a required study of "Utopia", of all things." (Shor 1996: ix).

[C]ritical pedagogy is a constantly evolving process which calls for continual change and growth, in me and the students. The Utopia class obliged me to become more critical and experimental than I had ever before. ... Student resistance and acceptance drove me to test new methods I hadn't imagined. ... when students shared authority in some disturbingly unexpected ways, when the power of knowledge was connected to the knowledge of power. (Shor, 1996: 4)

Critical pedagogy calls for continual change and growth, it drove Shor to test new methods he hadn't imagined.

At that instant I took an intuitive risk to deal with student scepticism. Impromptu, I announced that in this class students would have "protest rights." Now, at the moment I announced those words, "protest rights," I had no idea what I was talking about. ... I was pushed forward to explain the words. With thirty five students staring at me in expectation, I invented a definition. ... (Ibid, 112)

Might we seek pleasure and excitement in the classroom?

When I entered my first undergraduate classroom to teach, I relied on the example of those inspired black women teachers in my grade school, on Freire's work, and on feminist thinking about radical pedagogy. I longed passionately to teach differently from the way I had been taught since high school. The first paradigm that shaped my pedagogy was the idea that the classroom should be an exciting place, never boring. And if boredom did prevail, then pedagogical strategies were needed that would intervene, alter, even disrupt the atmosphere. Neither Freire's work nor feminist pedagogy examined the notion of pleasure in the classroom. (hooks, 1994: 7)

Can we, alone, create our dreams, through our willpower, and our desire?

One semester I had a very difficult class, one that completely failed on the communication level. ... [the class] was also full of "resisting" students who did not want to learn new pedagogical processes. Who did not want to be in a classroom that differed in any way from the norm. To these students transgressing the boundaries was frightening. And though they were not the majority, their spirit of rigid resistance seemed always to be more powerful that any will to intellectual openness and pleasure in learning. More than any other class I had taught, this one compelled me to abandon the sense that the professor could, by sheer strength of will and desire, make the classroom an exciting, learning community. (Ibid: 8-9)

How might we work together?

praxis (MARXISM) purposive action (including political action) to alter the material and social world, including Man himself (sic). As a central general concept within Marxism, 'praxis' draws attention to the socially constructed nature of economic and social institutions and the possibility of changing these – humanity's capacity for freedom, which cannot be achieved entirely at the individual level. Praxis can be given more specific meanings, e.g. 'revolutionary praxis'. But its main use is as a general concept capable of receiving a variety of emphases, for example, in some uses (within Marxism) a tension may exist between praxis and necessity. (Jary & Jary, 1991: 517)

These quotations all foster the notion of voice and seek ways in which praxis, the work of the individual, might enable voice to develop. In each case there are hints of the sense of collectivity I strive to articulate. (Shor's class, for example, developed an ACG (an After-Class Group) who criticised the course and its teaching, evaluated progress, and advised Shor in his planning. One aim of the ACG was to address the need for "protest rights" so that the voices of those who were disenfranchised might be heard.) Yet, even though Shor and hooks seek to enhance voice, their pedagogy is still constrained by the nature of curriculum and the systems that surround them and their students. In chapter 5, I explore the possibility that educational research might be viewed as a more widely networked enterprise in which nation-wide and local investigations come together to help us all to understand more about how school classes (and other groupings of people) can work together to promote a form of knowledge construction that is collective and catalytic.

In this section I have described three concerns that run through the body of my argument: the need to seek holistic understandings of the educational terrain, the need to consider ways in which educational research processes might enable and involve all kinds of participants in all kinds of ways; and the need for teachers to investigate ways in which they might foster voice among students.

The text of the above section is quite tight, constrained and constraining in order to provide a theoretical perspective from which to open up conversations: I envisaged these texts being used in a situation where they are not presented as authoritative positions, rather, the strategy is to invite critique about, and of, the selection and to investigate the insights and discussions that might arise. These juxtapositions set the scene for discussion and questions that might generate new openings. I do not pre-empt the discussion: it needs to emerge.

Within the next section I write differently. My aim is to continue to play with new vocabularies in ways that are designed show my attempts at gaining understandings, the central theme is that of postmodernism and the unruliness of knowledge within a postmodern era. Again, I trouble the assumption that meanings can be clearly defined before conversations and discussions occur. In the final section of this chapter, I begin to draw the emerging vocabulary together into some patterns (or catch-cries, or models) which serve as ongoing points of reference.

Section 1.4 The challenge of unruly knowledge

The cluster of words and phrases I have italicised in this section have their origins in Stronach and Maclure's (1997) *Educational Research Undone*: *The Postmodern Embrace*, pages 97-8. In line with their arguments, I am not attempting to define postmodernism, or any other term I use, because any definition is doomed to fail or to disappoint.

... for books that deal with postmodernism, post-structuralism or deconstruction, introductions are doomed to disappoint in two ways that are unavoidable ... They disappoint if they try to state clearly what postmodernism etc 'is', ... and they disappoint if they resist doing that. (Stronach and Maclure 1997: 1)

These words (*unruly knowledge, mobilisation of meaning, address* rather than *arrest*, and others) are indicators of postmodern ways of understanding the complexity of knowledge construction which is *the postmodern embrace*.

My goal is to use the language of postmodern and feminist theory a lot, in a variety of contexts and ways, and to call on the ways that other authors have used this language. Thus, the *half-formed-vocabulary* of postmodernism will continue to emerge and become more accessible and relevant to those outside the academy.

It is more important, Stronach and Maclure (1997) advise, to *address* the mobilisation of meaning within educational policy, than it is to *arrest* it. Postmodern deconstruction is challenged to do more than *invert the violent hierarchy* it criticises, to go beyond that to a *positive and displacing relationship* that tracks a course between *nostalgia and utopianism*. It is important, I argue therefore, not to be stalled by the act of explaining exactly, or arresting, or freezing, the meaning of an educational policy; it is important to ensure that as well as doing justice to the meaning as it first appears, the mobility of the meaning is also addressed. Mobility of meaning suggests possible different consequences, it suggests alternative readings, it suggests different opportunities, it suggests different applications in different contexts, it suggests different possible strategic responses. A new educational policy might invite compliance, it might invite resistance, it might invite collaboration and strategic alliances, it might invite a variety of different actions or activities: a new educational policy should however be addressed (not arrested).

The term *unruly knowledge* has helped me to address a persistent problem within this study: it has enabled me to identify a number of epistemological positions (or perspectives, interpretations or questions) that underpin various research methodologies, to recognise that these positions are not necessarily compatible (but neither do they necessarily conflict with each other), and to stop trying to explain their complexities and interrelationships. Let us ignore, I suggest, concerns about *relativism* because the term comes from "an entrenched vocabulary which has become a nuisance" (Rorty, 1989, above: 45): it is enough to simply accept that different approaches apply in different situations, and that the choice depends on local considerations (such as contextual knowledge, epistemological belief, and the supposed purpose of the inquiry). To ignore the concerns of relativism in this way does not undermine the scientific method, nor the findings of the physical sciences, but neither does it allow the excessive claims of positivism or scientism to go unchallenged. There is little to be gained by pursuing questions about relativism: such questions have become red herrings. Chalmers (1999) illustrates this point when he expresses his doubts that "any serious philosopher" now believes that we can determine any facts about reality (1999: 228, see below: 287).

Toward praxis in teacher education: a pragmatic thesis

My first attempt at writing this thesis began with a false lead. But that is typical of practice. "With the wisdom of hindsight," we say, "we would have done something different." Such regrets are irrelevant and undermining to our power to act. In practice we make, at any one time, a pragmatic decision about what to do next. That decision, with all its subtleties and nuances, is our chosen course of action at the time. Any decision is in the past and is to be noted for what it can teach us - each choice shapes our future memories. What matters is not that we mourn over our past failures but that we learn from them, so that our pragmatic choices and our knowledge of how to act are informed by wisdom about the ways our worlds work.

Because of its focus on consequences rather than truth, *pragmatic theory* sits in opposition to forms of realism which strive to create universal, or foundational accounts of the physical world, or to describe the essences of items we name. Yet because of its inclusiveness, *pragmatic theory* also works in partnership with all forms of theory, realist and relativist, including social relativism where it is recognised that our interpretations of reality as we experience it depend upon our cultural heritage. My argument in this thesis is

that pragmatism provides a platform from which to critique dominant assumptions of some forms of realism such as positivism, and from which to explore how teaching and teacher education might develop in a world freed from the hegemony of these assumptions, where knowledge about how to act is valued more highly than knowledge about how the world is. It is not that knowledge about the material, social or linguistic worlds is unimportant - these kinds of understanding form the basis on which pragmatic forms of knowledge are layered - they are important in themselves, because they are tools within pragmatism.

I write as an educator of teachers, who has worked with experienced teachers for more than ten years. I write as a learner who struggles to make sense of the things that are happening in my classroom and in my institution in relation to the theory I am reading, in philosophy, sociology, and in education. I write as a critic of absolutism, foundationalism, essentialism, representationalism scientism, reductionism, and any form of analysis which seeks universally correct answers and denies the possibility of difference. I write as an idealist and an optimist who sees value in small acts which, when echoed and multiplied by others and oneself, form the patterns that are our culture: I cannot change the world, just a small part of it; I cannot help but change that small part because I am immersed and embodied in, not separate from, the world; I can choose how I change that small part when I choose how to act.

How, therefore, should I act? On what criteria might I base my choice of action? What theories drive my choices? This thesis recounts attempts to develop a theory of praxis which might guide me as I strive to teach in ways that might help create the kind of society of which I dream. The starting point is a discussion of my choice of pragmatism as a model within this project, and I conclude that there is much to be gained within teaching and teacher education by using creatively pragmatic, praxitioner-oriented approaches to research and knowledge construction more widely.

I began my work on this thesis by trying to find relationships between a participant observation study of a network of practising teachers and post-structuralist theory. The aim was not to carry out a deconstructive analysis of my data but to investigate how postmodern ways of viewing education might inform the work of the teachers. My concern at this time was the gap between theory and practice: my interest was in using theory to better understand and describe practice and its social consequences. This attempt was a false start in the sense that it did not address my key concerns, but it proved, with the

wisdom of hindsight, to be valuable. It focused my attention on understandings of research and knowledge not bound by interpretive assumptions, and on methods of research which recognise the emergent nature of action and wisdom within practice.

Exhibit 1.4.1 Reflections on my own discomfort with participatory action research

The AGNET (AudioGraphic NETwork) study ran for three years: it involved six specialist teachers of mathematics in isolated schools talking with colleagues in other isolated schools, in association with the mathematics advisor; the means of communication was by voice and shared computer screen through audiographic links among the respective schools of the participants.

The study launched me on my current investigative path: by seeing how this network differed from other communities of teachers, I have come to wonder about what is missing for many teachers in their ongoing professional development, such as ongoing professional conversations that address topical educational problems.

The study allowed me to investigate the formation of a community of teachers which differed from those long-term communities that develop within particular institutions, or the short-term associations of teachers who come together for a semester or a year within a taught post-graduate level course. Attendance at the sessions was optional and there was no charge other than the connection fee for the conference calls. The technology was interesting: it predated similar webbased connections, all small isolated schools in our geographical region had access to it, and the idea of using this technology for ongoing professional development was novel. Further, I already knew most of the participants from my past work as mathematics advisor, and valued the opportunity to work closely with the current advisor (Kevin Hannah).

As a result of this work I produced three folders of densely packed data materials: transcripts of audio-tapes of the twenty sessions, transcripts of personal interviews with all of the participants, notes about the curriculum that emerged within sessions, personal analyses and observations. I, in association with Kevin, produced three conference papers, and made various presentations to local audiences. Yet this kind of research work was, I found, frustrating, not because it seemed unimportant, but because the data obtained did not seem to relate to the kinds of questions that interested me as a teacher. My attention was constantly diverted toward more theoretical issues linked to the place of teaching within a postmodern era. To be sure, this study did provide an unusual and interesting approach to teacher networks, but I did not want to apply existing postmodern research methodologies to the data it provided because I could not see how, even if I were to do so, my central question about the relevance of postmodern theory to teachers would be addressed.

The AGNET study gradually faded into the background of my thesis work and was replaced by activities in which I had a more active part to play as teacher of the group. Yet it was declared by all the participants to be very valuable, attendance was high and dropout rates very low; people

voted, year after year, to continue the conference calls. It promoted professional conversations, some of which are still ongoing, and while it was running it contributed to discussions about the use of this kind of technology and communication both within local networks of teachers and within the wider research community.

My interest faded because my role was as participant researcher, and I became aware that I was unable to play the role of either advisor or teacher within the group. My involvement was not an issue - I was always welcome to participate - but I was intensely aware of the possibility of becoming a judge on the side and making observations about the patterns of communication that I did not have the authority, or the knowledge, or the right, or the desire to report on. No amount of checking of data and interpretation with the teachers would have allowed me to assert that my story was an interpretation of events good enough in the eyes of other participants to be a shared story. Other participants were interested, but did not care about the level of detail that might be needed if I were to meet the standards of accuracy required within qualitative work. "Who cares?" they would say, "We trust you." These teachers would support research and take a limited interest in its production and in its findings. They were more attracted to travelling road shows where visiting gurus shared, at significant cost, the latest techniques for attracting student interest, or to required ministry workshops where the latest assessment or curriculum material was being processed and discussed, than in considering the products of research. My study did not appear to be attracting either me or the teachers I was working with. A new tack was needed.

In retrospect, I see that the new tack I sought related to Lather's notion of *catalytic validity* (above: 56). Even though this project was much appreciated, and Kevin's and the teachers' interests were being addressed, I could not see how my work as a participant researcher was doing more than support the *status quo*. No matter what report I wrote, I would be immersed in interpreting the interactions of these people. What right had I to do that? How accurate or insightful might my findings be, and what might be the consequences of this work? Who would benefit from my deliberations? Mainly me, I surmised, so what about the teachers, how could they come to benefit from the insights of research? I wanted more, I wanted to understand how this empirical work related to the wealth of post-modern and earlier literature I was reading: I saw few connections, and I was silenced by the gap.

Voice and silence

Voice, and its absence which is silence, are metaphors as central to my own developments within this thesis as Schön's (1987, below: 71) *swampland* and high ground are to the territories of practice and theory which I explore. No matter what is reported by

researchers who investigate teaching and learning using positivist or interpretative, or postmodern research methods, there is much more that cannot be said: these silences are worthy of attention for the way in which they illuminate the roles which social status and relationships play in knowledge construction. The silences come in many overlapping forms. There are the silences of individual people, and groups of people, in particular contexts where they will not, or cannot, speak the words which in other settings would come naturally (these are silences of oppression, or of boredom, or of privacy, or of futility, or of wisdom, or prudence). Other silences are the result of concentrating on specific aspects of a situation at the expense of other possible considerations (here, things that could be said are forgotten or silenced - for example, as I discuss in chapter 4, even though the origins of reflective teaching and action research are based in critical theory, they can both become, and both are, at times when these roots are forgotten, tools of technical rationalism). A third kind of silence occurs where words are missing or where emerging concepts have not yet developed a communal meaning (the ways in which the development of this kind of emergent language relates to social change is an important aspect of my discussion of learning communities in chapter 6). Finally, there is a more profound kind of silence to do with experience that cannot, by its nature, be described.

Wittgenstein's statement: "What we cannot speak about we must pass over in silence." (Wittgenstein 1921: proposition 7) provided me with a key insight into the notion that interpretative forms of research, no matter how well carried out, can never explain all that can be known. There are some things that can be known only through experience and which cannot be spoken about in such a way that will communicate that experience to another. We can speak together only in terms of the concepts that we have established within our shared language, but this does not tell us either about reality or about how we should live.

Wittgenstein held that the attempt to reach profound truths on the basis of purely conceptual investigations was futile – according to him, grammar is autonomous and conceptual analysis can teach nothing about reality nor resolve the puzzle of how we should understand the world and how we should live. (Johnston, 1993: 237)

My attempt to analyse the relevance of theory to practice within an empirical study was doomed from the start. Moreover:

[t]he source of difficulty is that learning to use a concept such as thinking involves acquiring a practical mastery rather than a theoretical understanding of it; since such concepts are important, the scope for confusion when we come to reflect on them is correspondingly great. Although the philosopher may end up where she started, this does not mean she has not travelled – the house may be the same, but it looks different to the stay-at-home and to the round-the-world voyager. (Ibid: 235)

As a teacher I want to be the philosopher of my own practice, and to have ongoing access to interesting, relevant (pragmatic) philosophical journeys. "Conceptual investigations" of the sort Wittgenstein refers to generate theory which may not seem relevant to teachers, but which can also be inspiring, motivating, exciting, and challenging. From teachers' points of view, theory uttered by others outside our practice can seem distant, irrelevant, or over-distilled, and the exhortation to apply it can seem distracting and arrogant. The tonal authority of positivist theoretical research sometimes indicates that there is a truth that transcends lived experience, a truth that is written in a foreign, specialist language. Such perceptions can silence and undermine the voice of a teacher - or a teacher may, instead, ridicule the words of theory as irrelevant, and avoid contact with them. Either way, a teacher's voice is reduced, she/he is more silent, more is passed over.

The notion that *theory derived by some people can be applied in practice by others* is faulty: the teacher-practitioner needs to take the journey through theoretical domains her/himself and to produce theories-in-practice which are built upon research of many kinds. To journey out into research and theory and then to return home again implies a separation which, in itself, constitutes the problem. Nor is such journeying possible for all teachers: a *methodology for theorising* that is more intricately related to teachers' daily work is needed. (I avoid using the phrase *research methodology* because it is more generally found in empirical, data-driven research which interprets some aspect of the social world as it is observed: my desire is to support a shift of focus from interpretation of empirical pasts to contemplation of a possible futures.)

Schön's (1987) imagery*¹⁵ of the *swamplands of practice* as opposed to the *theoretical high ground* is apposite here. The problems of greatest human concern lie, Schön argues, in the swamplands where theory and practice cannot be easily distinguished.

Postmodern and feminist theory have opened up ways of thinking about voice and about self which allow me to identify, and consider the implications of, the various silences referred to above. I seek a form of research which recognises the persistent presence of things which cannot be said, and which includes the authors of those silences within the research process. Rather than being a passive subject within the research of others who attempt some form of objectivity, the researcher becomes actively involved in collective research. Among other things, this is research into subjectivities and into the silences that shape discourses as well as the noises that construct them.

My original research project to find relationships between post-structural theory and empirical data was flawed because I located myself as researcher studying teachers. That location was in conflict with my interest in fostering teachers' voices. I had mismatched an interpretative method with critical-emancipatory intent. In order to overcome the barrier of silence between researcher and researched, I needed to locate myself as teacher who is also researcher. I needed and need to research (re-search) my own practice as a teacher and the ways in which my practices impact on the culture and learning of the classroom that I am working in.

I am aware of dangers in self-reflective writing and personal narrative (some of which are discussed in chapter 4) but I see these activities as essential tools within any project that seeks to explore the experiences of teachers and to promote classroom practices where, in both cases, focus is on the learning experiences and needs of all of the participants. I have chosen to teach courses in reflective practice because I believe that teachers need to reflect upon personal experience in order to be able to conceptualise and talk about their practical mastery of teaching. Reflective practice, however, frequently lacks a critical edge that might enable structural rather than cosmetic changes in teachers' approaches to pedagogy (and to social problems) to take place: critical theory provides that edge. Further, as I discuss in chapter 4, reflective practice does not seem to have comfortable links with post-structural theory either. Yet post-structural theory has given me a new perspective on

¹⁵ Gloss on Schön's swamplands of practice

In the varied topography of professional practice, there is a high, hard ground overlooking a swamp. On the high ground, manageable problems lend themselves to solution through the application of research-based theory and technique. In the swampy lowland, messy, confused problems defy technical solution. The irony of this situation is that the problems of the high ground tend to be relatively unimportant to individuals or society at large ... while in the swamp lie the problems of greatest human concern. (Schön, 1987: 3)

voice, a central concept in analysis of my own subjectivity, and a growing understanding of teacher education and the possibilities of constructing teachers as researchers.

These are tensions of which I seek to make sense within the writing that follows.

Having discarded my attempts to write an empirical thesis that would link the lived world of teachers with postmodern theory in some useful way, my second foray was a theoretical investigation into the epistemologies that appeared within the educational rhetoric around me. I have explored the tortuous landscape of postmodern and post-structural theory and representation and the ways in which these overlap and intersect with multitudes of debates about the nature of reality. I still struggle, but enigmatically, and with a smile, because since reading Wittgenstein, I have come to see it all as a game. By this I do not mean that the debates are trite, or trivial, but rather that it is a useful metaphor to consider all theorising as a form of game-playing where different rules apply in different settings. My task therefore became that of identifying and articulating the game rules that I saw as most relevant to teaching and to being a teacher. Pragmatism has prevailed, for reasons that I detail in chapter 3.

My next step is very obvious, in retrospect, although it was not at the time. The need was to develop or discover a new set of game rules that would locate the teacher as one of the central players. Earlier attempts at this task by others have resulted in the games of *action research* (which tends to be empirical in its construction) and *reflective practice* (which has a more philosophical bent) but, as I shall argue in chapter 3, these forms of investigation do not provide genuine access for teachers to certain kinds of theory. Furthermore, I shall argue, these forms of investigation, although valuable in their own right, are inadequate because they perpetuate the spurious distinction between (a) real theory that produces real knowledge claims, and (b) localised idiosyncratic theory which is, really (factually) only of benefit to the individual teacher and her/his institution - localised theory, under this myth, is not seen as real theory.

Theorists who propose moving beyond modernism and postmodernism to other ways of thinking about the deep social problems of our times have shaped my arguments: Bernstein (1992) proposes pragmatism as a way to avoid sterile impasses between the two domains; Latour (1993) proposes that we have never been modern; Schrag (1997) investigates the self after postmodernity. While the theorists I discuss in chapter 2 may not themselves

select the banner of pragmatism to describe their work I shall demonstrate that the label is not alien to their work.

Within remaining chapters of this thesis I investigate aspects of my practice as a teacher educator (chapters 3 and 5) and develop methodological and pedagogical models that link pragmatic theory with teaching practice (chapters 4 and 6). In the remaining sections of this chapter I use various strategies to demonstrate important threads within the thesis: some mischievous aspects of *postmodernism* communication serve to trouble traditional, rational forms of writing; a discussion of *subjectivities* allows me to demonstrate how a choir of discordant voices can act in concert; the introduction of a model representing these voices offers a foretaste of an *emerging methodology* for a form of research of particular relevance both to teachers and to the evolution of educational policy and practice.

Section 1.5 Lost in a Good Thesis

There is a sense in which this thesis is, itself, a self-organising system which has a life of its own. What is this thesis? (Is it the thing I began to write a long time ago? Is it the text I am currently typing, or the other text that you are currently reading? Or is it the ideas that will later emerge and be discussed?) It is all of these, as I try to explain in the following exhibit, and notes.

Exhibit 1.5.1 Lost in a Good Thesis

The Independent says of Jasper Fforde's (2002) novel, *Lost in a Good Book*, that it is "a silly book for smart people: postmodernism played as raw howling farce."

"Why 'postmodern'?" I wonder. "What is it that makes this distinction?"

I wonder as I am catapulted into the text, but then I wonder no further - because time, space and reality are upended - and the text talks with the footnotes. This happens nowadays in other novels (Danielewski's (2000) *House of Leaves*,) and academic texts (Stronach and Maclure (1997) in their final chapter).

In a postmodern era we live with virtual reality - where any social convention might be altered, and where the physical world might obey different laws - yet most laws remain untouched, because otherwise we would not make any sense of the plot. In Fforde's text, the villain has been tricked into a copy of Edgar Alan Poe's The Raven, a place where the author hoped he could do no harm .

The villain is trapped in the text and therefore rendered harmless - I am lost in this thesis - I do not want to emerge - I fear I will live in its pages for ever. It keeps changing me - and I keep changing it. Lived experience is like that - it keeps changing me - and I keep changing it.

"It is the unruliness of knowledge that challenges us now," write Stronach and Maclure, (1997: 98) in Educational Research Undone. It is that challenge that this thesis sets out to address. Authority over knowledge is escaping from the pages of the academic texts - it is emerging everywhere in a scattered, broken kaleidoscope of pluralism, resistance and unruliness. The authoritarian, hegemonic discipline of the academy, the state, the church, the school can no longer keep knowledge in an orderly, rational sequence. Hierarchical and treelike thought structures give way to other metaphors: the rhizomic "body without organs" (Deleuze and Guattari in Lechte, 1994: 104)), the multiple hinge (Wittgenstein, 1969), the unstable, disorderly, chaotic borders of a cloud, the harlequin (Serres in Lechte, 1994), the logic of the new sciences (Wheatley, 1999), the carnival and the mask (Bakhtin in Lechte, 1994), the cyborg (Haraway in Gamble, 2000).

I began this study by searching for a relationship between *ongoing conversations* among practising teachers and my reading of postmodern theory - but it has emerged as an investigation into praxis within education, and into the constraints on pluralism. It has emerged as a critique of those aspects of research that continue to locate knowledge as an approximation to reality rather than within the social and political patterns that are our heritage. Above all, it is a critique of essentialism and those assumptions that locate knowledge and action within individual rationalism (for example, the location of motivation as a characteristic of an individual).

This thesis has swallowed me up because I can no longer see myself as an individual who acts as an autonomous entity within a social context - yet I remain an individual. Richardson (1997: 68) suggests to me, when she writes "It's alive", that an individual, as a biological entity, is more than a discursive production. This thesis is a living search for pragmatic meanings within all this, for teachers.

A reflection on "Lost in a Good Thesis"

What have I lost, buried, within this writing? Why is it a good thesis? Is it a good thesis? What does 'good' mean - is it merely self-congratulatory - or does it expose, for the benefit

of the reader, the kinds of doubts and self assurances that run through my mind? And what does it mean, anyway, to be good? Who sets the criteria?

Within this section I ponder on the kinds of meanings that are embedded within the writing in the exhibit above. I try to show that meaning escapes even the author, and that, even so, somehow, patterns of words create meanings that are far from random.

Lost in a Good Thesis could act as a good text because it alerts the reader to some patterns within current literature (I refer to both academic literature and popular novels, although the distinction breaks down nowadays, along with the breakdown of all binaries and distinctions - but that comes later). These patterns of representation are ones that distort the traditional and formal rules of writing: rules that were established by experts within the academy and imposed upon the masses, rules that seemed to identify, as god-like, the written traditions of one particular era. The sources I quote explore the ways we might represent our ideas in a non-linear fashion. I am setting out to try to represent an unruly reality in the way that it appears to me: fractionated, yet patterned, unpredictable, yet repetitive, chaotic, yet organised, random, yet purposive. This is a good thesis (isn't it?), and that was a good text (wasn't it?): it shows a fundamental point about this investigation, that my reality (whatever that might mean) is inextricably linked to my theorising; and that neither is linear in the sense that time is linear. My ideas and my actions leapfrog over each other and make links that are rhizomic: they hook onto past actions and ideas in ways that depend more on where I am actually located at the particular instant than they do on the sequence of events. I can answer the telephone and put out the rubbish then return and complete the sentence I was typing. Thus, my ideas and my actions adapt to the environment: I can move away and be Other, and return, not to exactly the place I left, but to a very similar space. "Lost in a good thesis" (exhibit 1.5.1, above: 73) has hinted at all this. And my doubts show through - is this only a good thesis if others agree that it is, and which others should I listen to?

The references to *Lost in a Good Book* and *Lost in a Good Thesis* seem to flow through the text well enough. The villain is trapped and rendered harmless within the text of Edgar Alan Poe's *The Raven*. For as long as I am trapped within the individuality of thesis writing I am silent within my workplace. I am rendered harmless - yet that is not true because I continue to interact there: reciprocity happens. The thesis is *contiguous with lived experience* - it is part of my reality. I cannot exist without changing reality/lived

experience, or this thesis - until it is finally submitted, that is when it will become an artifact, but even then it will live on: it will continue to affect my lived experience.

The references to postmodernism also seem about right. To me postmodernism is a troublesome word: the link between the signifier (the word and the way it is used in speech) and the signified is tenuous; it defies common sense. By this I mean that it is not a word that has slipped into comfortable language in a way that allows people to use it and assume that meanings are shared: it is a contested, uncomfortable sort of word that divides people into those who know that they do not understand it, those who have a generalised sense that it means something to do with complexity and no simple answers, and a few who have other, more specific (and differing) understandings. There is no mirage of a signified. In this sense postmodernism is a word that allows me to understand the linguistic form post-structuralism, where a word has meaning only through its usage, as a signifier. There IS NO signified. The lack of a mirage of an underlying meaning makes people uncomfortable; we grasp for a shared understanding: that is the nature of essentialism, that we seek the meaning or pattern or structure or essence that sits behind the word, or the text, or the entity, or the person.

When we grasp for a shared understanding, do we grasp for unity (for the single true answer), or for agreement (where we might agree to differ)? Or might we not seek shared understanding by a celebration of and valuing of difference? Where there is no attempt to assimilate or absorb our differences, might we seek pluralism? Rather than celebrating the insights that might arise by building upon our differences, we have tended, within the world of modern rationalism, to seek security for our essential selves, our knowledge, our understanding, and our argumentative position, our epistemology. Latour argues this forcefully as part of a discussion of the arrogance of the West, and the need for diplomacy in the aftermath of 11 September 2001:

[The modernists]...spread, by force of arms, profound peace, indisputable civilisation, uninterrupted progress. They had no adversaries or enemies in the proper sense - just bad pupils. Yes, even their wars, their conquests, were educational! Even their massacres were purely pedagogical! We should re-read Captain Cook or Jules Verne - there were fights everywhere and all the time, but always for the good of the people, "That should teach them a lesson ..." (Latour 2002: 26)

I discuss this quotation in chapter 3. Is it okay, I wonder, to quote exactly the same words twice within a thesis? Why not, I conclude, if it makes the reading easier, do it.

I have used the word *postmodernism* in the text of exhibit 1.5.1 in the same two ways that I use it within the thesis. Firstly I use it when I am quoting the work of someone else and wondering about their use of the term, and secondly I make an attempt to explain the way I have come to use the term. Based on the work of Lyotard I am taking *postmodern* to refer to a period of contested meaning where understandings are widely disputed.

Postmodernism thus understood is not modernism at its end but in the nascent state, and this state is constant. (Lyotard, 1984: 79)

A postmodern era follows an era of modernism where understandings and visions were shared, and it (usually) precedes an era of new shared meanings, a new modern era. A postmodern era is, in this construction, an era in which a significant shift is taking place in some aspect of communal understanding, and according to Lyotard, it is "undoubtedly a part of the modern" (ibid 79). This definition of postmodernism makes it possible to name all who have introduced significant new ideas as postmodern: for example, those who challenged the scientism and social structuring of the early nineteenth century would be classified as postmodern (e.g. Gilman, Marx, Freud). Knowledge is unruly: Lyotard's construction is that postmodernism continually emerges from within that which is currently modern.

The challenge of the "unruliness of knowledge" (as quoted in *Lost in a Good Thesis*) is at the heart of this thesis - this is the paradigm shift in which we are currently immersed. If knowledge is unruly then I shall tame it, or aspects of it, into a sequence that is logical for me. This thesis represents that taming. But this thesis is already escaping: I find that I want to talk about it with my students and my colleagues; it intrudes into my conversations - it already has a life of its own. I could not work on this chapter yesterday because it seemed a waste of time. I prevaricated. Instead it seemed more important to write to my students, and to write to my colleague who is currently writing the new strategic plan for our institution - I wanted to influence his thinking in line with the ideas of this thesis. I emailed him; perhaps that email will find a place in this text - or perhaps it has simply escaped. It is in this sense that I will never leave this thesis; it has changed me; it has affected my praxis. My knowledge is unruly and will not be contained in narrow boxes or treelike structures.

I tried to hint, in the last paragraph of *Lost in a Good Thesis* that, in order to challenge classical and modern construals of *self*, I shall call upon post-structuralist and feminist writing where *self* is located within discourse and subjectivities? Possibly it is not yet established that I do call upon them to unsettle the modern construal of

```
self as transparent mind (Schrag 1997: 9)
```

and the

```
common sense notion of personality ('common' in that it is a widely shared idea) ... as "essentialist." (Burr, 1996: 19).
```

Challenges to common sense understandings about the essential nature of person-hood is of fundamental importance. Teachers, unless they are aware of the possibility of anti-essentialist constructions of the self, can retain particular, damaging, twentieth century constructions of psychological ways of thinking about personality, and of their own personal competency and of their students.

It's alive is also an acknowledgement of common sense: common sense is a cultural artefact which serves to moderate excesses, yet because it changes over time, common sense can adjust to shifts in understanding. Richardson's (1997) observation in the common sense statement "It's alive" reminds us that post-modernism is not an ideology to replace modern ideologies. The challenge now is to find ways of representing the blend of reality as we experience it and theory as we name it: the challenge now is to address the unruliness of knowledge.

Section 1.6 Toward unachievable equilibrium

Utopia is an example of a static ideal: when we get to understand enough social theory, the myth suggests, then we will create a perfect society. "When I overcome all my current woes, I will be happy," is another impossible, static ideal which locates bliss somewhere in the future. These dreams, along with dreams that we will cure illness or resolve inequities in education are impossible dreams. In this section I introduce the notion *unachievable equilibrium* and explain emerging models that reflect the idea that ongoing, challenging interaction forms an inevitable part of all futures.

It is too early yet to attempt to pull together, in any detail, the variety of *philosophical shifts* that I am encouraging. My fundamental concern is to note that such shifts represent a reorientation and a shift in focus, not a rejection of existing methods. In particular, I

have discussed in this chapter shifts related to ontology (and supported a shift toward a philosophy that calls upon *complexity theory*), epistemology (and supported a shift toward *collective ways of knowing* - and hinted at a shift toward *pragmatism*, discussed in chapter 3), pedagogy (and supported a shift toward *collective, pragmatic pedagogies* which foster an understanding of the group as a functioning unit which exists around the cluster of individuals), and research methodology (where I have supported a shift toward building connections between various research paradigms by fostering *locally based research programmes*, each based around a specific substantive issue). The pattern is a shift toward the collective within which unachievable equilibrium might be sought. Tangled hierarchies provide one insight.

Hofstadter's tangled hierarchies

A tangled hierarchy occurs when what you presume are clean hierarchical levels take you by surprise and fold back in a hierarchy-violating way. (Hofstadter, 1980: 691)

The model I develop relies on such a *tangled hierarchy*; Hofstadter's discussion of a tangled hierarchy shows the extent of connectivity across diverse fields: brain function, hierarchy, symbols, levels, schema, image, tangles, the mind, representation, neurons, software, hardware, Strange Loops, folds, Escher, paradox, perceptions, language, inside and outside of the system, topology, Klein bottle, spatial imagery, mental topography, objects, illusion. This discussion does not refer to chaos theory, nor to fractals, yet it talks the same talk: it is perhaps the case that the language had not yet evolved (chaos theory dates from the 1970s, so the language was, therefore, very new at the time Hofstadter wrote). Hofstadter talks, for example, about recursion in the grammars of languages in the same sentence as he talks of recursion in geometrical trees which go upwards for ever, and recursion in solid state physics.

... What happens is that no particle can even be defined without referring to all other particles, whose definitions in turn depend on the first particles, etc. Round and round in a never ending loop. (Ibid: 142)

Exhibit 1.6.1 illustrates this kind of recursive, never-ending relationship by calling upon Escher's (1948) *Drawing hands*. This imagery existed at the time the language of deconstruction was emerging: Derrida coined *différence* in 1968, but most of his major writings are more recent (Lechte, 1994: 107, 110). Hofstadter's figure 136 provides a visual image of the act of deconstructing a binary, or seeming impasse, or tension, between

two poles. By stepping outside the image and looking back and seeing what elements, understandings, illusions, or discourses give the assumed relationship its power, we are able to see it afresh. In this case we see that what appears real is, in each case, an image

Exhibit 1.6.1 Hofstadter and Escher: in support of multiple worlds and tangled hierarchies

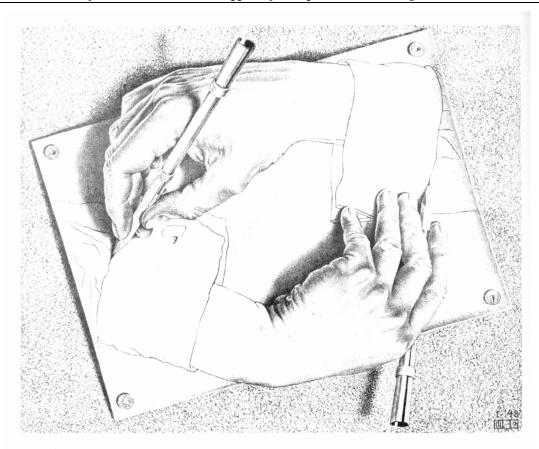
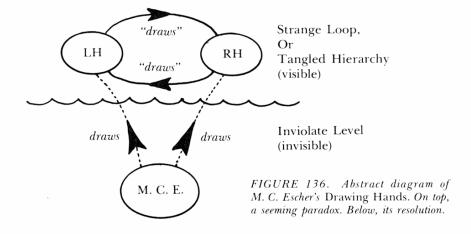


FIGURE 135. Drawing Hands, by M. C. Escher (lithograph, 1948).



(Hofstadter, 1980: 690)

created by what appears real. This is the model that I use consistently throughout this thesis. I represent this model by using the mathematical symbol for infinity, which, most appropriately, can be thought of an endless, infinite loop with a twist, or as a Möbius loop, or as two poles, each endlessly drawing the other so that neither could be recognised as existing without its contrast to the other.

It is exactly this kind of recursive relationship that I suggest echoes throughout the geometry and the sociology of self-organising systems and which opens up the possibility that we might come to understand social relationships as being part of an immense, living network of interactions rather than seeing them only more narrowly in terms of an agency/structure debate.

Within the recursive model that I propose, neither the search for truth nor the search for values to guide action is jettisoned. Each is important in sustaining and challenging the other. I illustrate this in exhibit 1.6.2 where the curved arrows which link the twin nodes of the search for interpretative truth patterns and pragmatic patterns of values which might guide actions are intended to represent this complex interrelationship, a never ending loop.

Exhibit 1.6.2 Diagram of a single never ending loop that seeks an unachievable equilibrium

The search for truth



The search for values

The symmetry of the relationship represented in this diagram is greater than for a simpler, untwisted loop where the orientation might be read as either clockwise or anti-clockwise. Here neither focus is dominant over the other: there is no hierarchy. The outputs from the search for interpretive patterns are data in the search for actions and values, and the decisions made in practice are the data which is interpreted in our search for patterns. The balance between these activities is praxis. Neither stands alone, they are intricately intertwined: it is balance we seek.

Burr: both/and and either/or

This is not an *either/or* situation as those who decry all forms of relativism fear. It is not that *either* "the only valid knowledge is situational" *or* "the only valid form of knowledge

is scientific or canonical"; it is not *either* "anti-realism" or "realism", it is not *either* "relativism" or "realism" - both matter to a practitioner.

Derrida recommends that we reject this logic of 'either/or', of binary oppositions, and adopt instead the logic of 'both/and'. When considering any phenomenon, in order to understand it properly we should take as our unit of study both what it is taken to be and what it appears to exclude. (Burr, 1996: 107)

The logic of 'either/or' is important because it allows distinctions to be drawn, but at the cost of identification of similarity. The logic of 'both/and' is important because it allows similarities to be identified, but at the cost of recognition of differences. I have not checked the source of Burr's assertion about Derrida, but I wonder about it: is it true to Derrida? I cannot agree that we should reject 'either/or' and accept 'both/and', because that is in itself a binary opposition in which the latter is favoured over the former: did Derrida assert this (or realise this)? The most fruitful approach is to consider both oppositions in pragmatic terms. What are the constrained consequences in praxis of considering either/or, what are the constrained consequences of thinking both/and, and what interesting, creative consequences might arise within this linguistic playing field, and what might be the material, tactical and strategic consequences of these games?

As a practitioner, of course, I am not interested by debates about *either/or and/or both/and relativism/realism*; what I want, as a practitioner is to know about, and to be able to discuss with colleagues, the relevance of such perspectives to my praxis, my theorising, my practice. If there is a dispute within the theoretical high ground then there are, I believe, always interesting implications of those different perspectives for the swampland - and the practices of survival in the swampland are, I believe, relevant to the theoretical debates.

Thus rather than think of the individual and society as forming the opposite sides of a dichotomy, we should instead think of them as inseparable components of the same system, neither of which can make sense without the other. The individual/society system is therefore the unit of study, as neither term refers to something which, of itself, can be properly understood. (Burr 1996: 108)

I agree with Burr that neither term (individual nor society, or in my example, high ground nor swampland) refers to something which can be properly understood in isolation from the other. This significant insight is at the basis of social constructionism and other

Page 83 holistic, situated, Gestalt theories of knowledge. Yet in order to understand the whole it is necessary to look through lenses that highlight difference as well as similarity.

Chapter 2 Toward collectivity: Self as multiple voices

Introduction: Self as multiple voices	86
Section 2.1 Voices and subjectivities	87
Voices from mathematics, science, and philosophy	90
Voices from the social sciences and philosophy: modernism, relativism, postmoderni	sm 96
Voices from praxis and philosophy: critical theory	99
The three voices interact	102
Section 2.2 Common sense, irony and strategy: a chorus of whispers	103
Common sense and commonsense	104
Irony	106
Strategy	108
Section 2.3 Self as a multitude of voices : an emerging model	109
Prism of praxis	110
• Exhibit 2.3.1 Diagram of the prism of praxis	110
 Exhibit 2.3.2 A trivector showing how different actions and voices provide room for movement 	112

Shared knowledge or common sense lies at the core of any successful society.

(Saul, 2001: 19)

I want to elaborate the uses of the form of play called irony,
given that it serves the double function
of allowing the particular sort of language game
and the opportunity to create my own sub / version
of reality-as-common sense.

(McWilliam, 1999: 177)

Introduction: Self as multiple voices

The problem I address in this chapter is that of understanding my own voice/voices. I call on my past understandings; my ideas are informed by memories of vector geometry where movement (rather than location) is emphasised; I am not seeking to generate a universal model, nor to imply that the model I produce dominates my thinking. The model I produce has value for me in explaining one way of understanding the choices I might make about how to act. The model seeks to explore opportunities for flexibility and freedom within the constraints of a discursive space; it is fundamentally relativist, but avoids a form of crude relativism where "anything goes" because it is firmly located within current discursive practices. These practices incorporate cultural values and ideological perspectives that dominate many people's thinking as we grapple with the problems of our times.

When I talk with teachers who are not familiar with feminist or postmodern constructions of self as socially or discursively produced, the explanations I give of how it might be possible to avoid talking about motivation or personality or intelligence as though they are inherent characteristics of an autonomous individual seem hollow. I do not talk with those who see the world through feminist and postmodern lenses about findings from the physical and biological sciences very much at all: conversations about discoveries in brain science or consideration of artificial intelligence die quickly, social issues are more important; I sense that these things from the world of science are unimportant, or perhaps differently important and not interesting or relevant to those primarily concerned with social justice. I see that these things are not divided: the material, social and linguistic worlds I perceive are all inextricably linked, yet those who specialise in the study of any one seem to spend little time immersed in understanding the perspectives of the others. (I have hinted at systemic reasons for this compartmentalisation of knowledge in chapter 1. Lather's (1991) notion of catalytic validity (below: 56) provides a possible criterion to use in challenging such compartmentalisation. In chapter 5 I argue that it may be possible to overcome the virtual barriers that maintain this separation by altering the "feedback mechanisms" within the educational community.)

Because I talk differently with different people, I see myself as (not incoherent, but) differently-coherent; I am not an autonomous entity, but a living, changing organism. The following four observations guide my discussion. (1) In that I am a single human-

biological organism, I have a voice. (2) Because I seem (to myself) to have choice in what I might say, and when, I think of myself as having several voices among which I can choose. (3) To the extent that I am not free, in some settings, to use some of my various voices, I am (my voice is) discursively restricted, and the selves (voices) the discourse allows are restricted: in these two senses, I am discursively reduced. (4) Yet, I am also discursively produced because it is within discourse that my various voices find their vocabularies. Within this chapter I investigate three of my voices in an attempt to make sense of these four observations.

Section 2.1 Voices and subjectivities

I choose to use the term 'voices' to describe the clusters of subjectivity and families of discourse which seem to influence my thinking.

The notion of subjectivity results from a postmodern rejection of [traditional and liberal humanist views of the subject as a self-actuating agent or as endowed with the power of reason, and thus possessing a unique identity]. The subject is no longer the originator of meaning but rather a function of discourse. Agency and capacity for self rational determination are seen as illusory products of the subjects' discursive position, as the subject is viewed as fissured and constantly 'in process.' (Gamble, 2002: 323-4)

I do not want to use the term *subjectivity* to describe the three voices that I have chosen to write about. This is because of the three, only the second voice fully accepts this definition; the others resist. The other voices are more sceptical of its relevance and use. The three voices I have chosen loosely match three theoretical accounts of the academic disciplines that have influenced my thinking. The disciplines have different (but overlapping) philosophical underpinnings, discursive practices, methodological approaches, and they set out, quite simply, to address different kinds of questions. The first voice (I shall call it Ernest) is that of mathematics and the physical sciences, the second is that of the sciences which set out to describe social and linguistic worlds and critique them (make that Hélène), and the third is the voice of the emancipatory sciences that set out to critique and change the social world (perhaps Karl is a suitable name). Naming these voices may seem, to some readers, a trivial and self-indulgent procedure. It will prove, however, in the course of my thesis, to have benefits of efficiency and clarity. Naming the voices also assists me to explore the notion of subjectivity, even as I reject a full definition of my voices. I toy with the idea of calling these the voices of my *epistemologies*¹⁶, my ways of knowing, and find that this is a helpful notion.

Naming the voices, I find that they are highly Eurocentric and I see that I am strongly influenced by dominant gendered understandings. I shall not use these names extensively - the mere act of choosing them helped me to clarify them and demonstrated my academic biases.

The strongest influence on the autobiographical genre has been exerted by Western culture's understanding of subjectivity which, for centuries was dominated by the Cartesian notion of the 'universal' subject; that is a stable, coherent, *essentially male* subject. (Ibid: 192, italics in original)

These are things that I am aware of - my Eurocentric bias, and the differences that separate me from those who suggest that mathematics and science are male domains, and from those people who see these disciplines as alien, and separate from other, more humanist, domains. My scientist voice, as Ernest, can accept Gamble's definition of subjectivity but only after careful thought. The part about reason was a little problematic because Ernest reacts strongly to criticisms of rationality. Ernest is comfortable with postmodernism at large but has no truck with the abolition of logic and reason as valid tools within context. But the wording above does not challenge reason *per se*. The wording was "endowed with the power of reason," and Ernest is happy with that, because she/he sees reason as cultural product. We are taught to reason, we are not endowed with reason. Ernest sees little value in pursuing this line of thought, however, as her/his mission is to make as much sense as

¹⁶ Gloss on epistemologies

The realisation that there are many *epistemologies*, many ways of knowing, has proved to be one of the most helpful insights of this investigation. I use the notion of multiple epistemologies to think of pragmatism, realism, relativism, post-modernism, any named theoretical position, as a way of knowing, a theoretical perspective that points to an ill-defined cluster of ideas that are articulated in various ways, in various places, through various discourses.

It is more important (for me as a practitioner) to be able to move around these different epistemological spaces and use them as different lenses on the problems of practice than it is for me to be able to theorise about the differences and similarities between them. Yet within this thesis I have needed to venture into that theoretical ground: in order to investigate the relevance of the "high ground", (Schön, above, gloss 15, page 71) I needed to go there, to explore the high ground for myself.

What I discovered was that the epistemologies are very relevant to practitioners, but that this relevance is carefully hidden behind structural barriers that separate theory from practice. After Ernest, Hélène, and Karl have introduced themselves, as voices of some of my epistemologies (ways of knowing), we (I and they) will point to some of the epistemologies that influence us (the recursive irony within this statement is intentional, and accidental).

possible of the physical world as we humans experience it, (in ways that are as non-gendered as possible, and as objective as possible). She/he is somewhat of a technophile. She/he favours reading philosophers who have been, or are, mathematicians or scientists.

My second voice, Hélène, claims that she cannot be labelled, but Ernest and Karl call her a post-structuralist¹⁷. She takes an interest in postmodern analyses of discourse and power. She recognises the work of interpretative social science but takes little notice of it, or criticises it because of its tendency to essentialise. She tends to not bother with understanding Ernest's interest in science and technology: as long as the fridge chills the wine, that is enough. Hélène not only accepts the definition of subjectivity, she lives it: she is constantly aware of the ways in which discursive assumptions shape our lives, yet she recognises that this form of analysis can be disarming and destructive, so she keeps her thoughts to herself. Historically, my second voice has not had much opportunity to speak, yet she has a cheeky, ironic tone which is being nurtured by post-structural challenges to the traditional stuffiness of the "pure" sciences. Hélène is an articulation of Haraway's cyborgs, Bakhtin's carnivalesque, Serres' harlequins... This voice is the ludic voice of play, laughter, drama, and humour (see for example McWilliam, Lather and Morgan's (1997) video). This is the voice that teases both Ernest and Karl for their dogged seriousness.

Karl is not interested in subjectivities - they operate at the level of the individual and can be seen as self-centred diversions from the more important issues of oppression at the level

¹⁷ Gloss on post-structuralism

Patti Lather generally uses post-structuralism to mean "the working out of academic theory within the culture of postmodernism" (Lather 1992: 90); whereas structuralism is premised on efforts to scientize language or to posit it as systematizable, post-structuralism's focus is on what is left over after the categorisations have been made; the French post-structuralists argue that "structuralism's basic thesis of the universal and unconscious laws of human society and the human mind are part of the bureaucratic and technocratic systems they opposed" (ibid 90).

John Lechte (1994) writes that post-structural thought examines writing as the paradoxical source of subjectivity and culture, whereas once it was thought to be secondary. Most importantly, post-structuralism is an investigation as to how this is so. (Lechte 1994: 95)

Structuralism and post-structuralism are distinguishable, yet irrevocably complementary. Both are *anti-essentialist*:

Saussure, even if he did not recognise the full implications of what he was arguing, inspired the view that to focus on material practices is the way to come to grips with the full, and most anti-essentialist, meaning of 'structure.' (Lechte, 1994: 37)

of social structure. Ernest agrees with this but, as a critical realist, he sees them as an important tool in Hélène's work and he values that work.

My third voice is the voice of social justice. Karl reminds me that all of the above is selfish and meaningless for as long as we live in a world where there is starvation and terror. Of these three voices, Karl is the weakest. I blame this on my upbringing because I was trained to conform, to be compliant, to seek to please, to identify right from wrong, and if I was not sure, or did not have something sensible to say then to be silent - and because I had a comfortable life, I had nothing to rebel against and no need to sharpen my claws. As for many middle-class teachers, my form of social justice tends to be little more reactive than liberal, *individualistic* (least-personal-pain, most-personal-gain) pragmatism yet Karl reminds me that it is exactly people like me who maintain existing power differentials - middle-class teachers and parents form the stable mass of people who perpetuate existing hegemonies. Even if I were to change and become a radical activist it would have little effect. My belief is that the commonsense philosophical understandings of many teachers are naïve in a way that makes developments in critical and postmodern theory inaccessible to them. My aim is to show why I believe this, to show why this matters, and to make my account convincing to others. My goal is to contribute in some small way to envisaging another track toward social change. This mission is at the heart of this thesis. I speak for all three of us, Ernest, Hélène, and Karl when I say this.

Voices from mathematics, science, and philosophy

The first of my *voices*, Ernest arises from mathematics and the sciences, in particular from their logic as I learned about it during the 1960s and 70s.

Ideals, asymptotes, the language of mathematics

In secondary school we studied the geometry of Euclid and I learned about the difference between an ideal circle and a perfect circle. The ideal existed only in the imagination, we were told, whereas the perfect was of this world and approximated the ideal. We can see a perfect circle because the line that marks its circumference has width, whereas, in the ideal, a line has no width. The ideal cannot be attained in the real world.

I also learned about the asymptote - a straight line that a curve never reaches, even though the curve is forever getting closer; we were taught they meet at infinity, and parallel lines meet there too. These descriptions were difficult to understand initially. It seemed to me (as I recall it) that there could be no place where the lines would meet, even on the imaginary flat plane that headed forever in any direction. There is no pathway from even this imaginary real world into the ideal world where the lines would meet; we must conceive of these worlds differently otherwise the logic does not work. 'A curve meets an asymptote at infinity' is, to me a metaphorical statement that links two separate and incommensurable worlds, the ideal and the real. *Asymptote* in my writing, infers a *real* approximation (that is existing in the real world) to an unattainable *ideal*. In practical terms, within the sciences, the word *asymptote* refers to the realist notion that scientific theories tend to become closer and closer (asymptotically) to a true description of reality. This notion preceded Einstein's theory of relativity, Kuhn's (1970) *The structure of scientific revolutions*, Heisenburg's Uncertainty Principle¹⁸, Gödel's Incompleteness Theorem¹⁹, chaos theory, and more which Hélène would add from the ranks of feminists and other post-structuralists, yet correspondence theories which match theory to reality persist within the traditions of modernist science. Ernest is a postmodern scientist who recognises, as do Haraway, Latour and others, that modern science is valid only within the

¹⁹ Gloss on Gödel's incompleteness theory

In 1931 when Gödel showed that "provability is weaker than truth" (Hofstadter, 1980: 19) he showed that for any formal axiomatic system (such as arithmetic) there exist truths that are not provable within that formal system (Casti. 1996: 163).

Up until that time, proof, within mathematics had held a very special position: within an axiomatic system, it was argued, proof was possible: the real world was more difficult (at least as I understood it, growing up with a pride in my choice to study mathematics) because of the difficulty of identifying the right axioms. When our theories were good enough (I thought as a young adult) we would be able to model the world and thereby to understand it.

Wrong. Gödel showed us, in 1931, that even the formerly secure domain of mathematics had its logical limitations.

¹⁸ Gloss on Heisenburg's uncertainty principle

^{...} the so-called *uncertainty principle* enunciated by Heisenberg ... may, perhaps, be explained as follows ... It is impossible ... to infer from the result of a measurement, the precise state of an atomic object immediately after it is measured. *Therefore the measurement cannot serve as a basis for prediction*. (Kuhn, 1972: 218, italics in original)

The glorious simplicity of this observation is that, it parallels so beautifully theories of *chaos*, and also, the behaviour of students in a volatile classroom. With the emergence of quantum mechanics, the expectation that the social sciences might someday be as reliable in their predication of human social behaviour as the physical sciences were of the behaviour of physical objects was quashed for ever. What I measure in my classroom cannot predict the future, but the patterns that emerge are predictable. We should therefore address the patterns, not the detail of individual events.

context of its own construction. It does not have any special claim on truth outside its domain of definition - science is, itself, a model.

If we change the geometry (or the theory, the model, the parameters, the axioms, the context, the assumptions) then parallel lines can meet - lines of longitude are parallel at the equator, yet they meet at the poles. Different geometries and different theories have different relevance within the real world.

It is the role of the physicist to test whether [a particular] mathematical theory fits the observed facts; whether the pattern embodied in the mathematics fits the pattern occurring in actual life. (Sawyer, 1955: 168)

Methods of science

When I studied the physical sciences, the work of philosophers of science such as Popper and Kuhn was well established. Even though I do not recall any mention of their names I was absolutely clear in my understanding that everything I studied in physics and chemistry was a theoretical model which followed earlier models and which could, some day, be subsumed within other models, or dramatically altered, as some new, better explanatory theory emerged. I learnt, for example, about Newtonian physics and relativity theory in the same Physics course; and in Chemistry I learnt about evolution of theoretical models that described the behaviour of atoms and molecules.

The clarity that this logical, scientific understanding once had has been clouded by the onslaught of theories of knowledge from within the social sciences. In these theories, the scientific method is closely linked to *positivism*, and yet Popper's (1959) falsification theory is taken as a fundamental (and supposedly, flawed) scientific strategy. I cannot understand the logic of this argument. Popper's work stands in opposition to logical positivism:

In opposition to logical positivism's verifiability criterion of logical significance, Popper proposes that science be characterised by its method: the criterion of demarcation of empirical science from pseudo science and metaphysics is falsifiability. (Audi, 1995: 631).

More generally, positivism, since Comte (1798-1857), refers to "an acceptance of natural science as the paradigm of a human knowledge" (Cohen *et al.*, 2000: 8). At this point, my "first voice" wonders: if natural science serves as the benchmark then how is natural science defined? Presumably it is defined as those sciences which study the natural world,

represented by the Newtons, Curies, Nightingales, Linneauses, Einsteins, and Rutherfords, along with all of those more recent scientists who investigate likely relationships within the physical, psychological, or social worlds using stochastic/probabilistic models. This is not positivism, nor is it fallibilism. Positivism is an acceptance of this model as the paradigm of human knowledge. It is quite possible to work within the natural sciences and yet to see them as one-among-many epistemologies rather than as an exclusive paradigmatic entity. Positivism therefore, under this argument, refers to the belief of the reader/writer rather than to the status of the knowledge claims that result from any particular study. *Belief is positivist*, models that act as representations of reality are not.

This is supported by Lather's argument against positivism which relates to assumptions of status rather than to practices.

My argument ... is not so much against such [positivist] practices as it is to their hegemonic status in the doing of social science, their status as "the" scientific method. (Lather, 1992: 89)

Ernest, as a scientific realist, does not claim that the scientific method is the only method: for him it is the chosen method because his questions inquire about the nature of the real world as we perceive it, but he also recognises it is limited to what can be expressed in terms of existing theories and language. Scheurich (1997) explains it this way:

[Scientific realism] has tried to adjust the epistemology of science in terms of the criticisms made of positivism so that the orthodox scientific method ... remains defensible as the preferred method of research. (Scheurich 1997: 30-31)

[Scientific realists] recognise that, even in the natural sciences, facts are always theory-laden because 'something' can only become a fact due to the theory that makes it recognisable as a fact. (Ibid: 31).

Scheurich (1997) challenges Ernest's realism: Scheurich opposes the dominance of any perspective, positivist or other, when he suggests that it is realism, rather than relativism that is highly dangerous:

I find ... singular epistemological dominance highly dangerous. ... I would support the proliferation of many ways of seeing and the dominance of none. Foucault (1997, p. 168) puts this much more poetically when he says, 'we should welcome the cunning assembly that simulates and clamours at the door' of knowledge (Scheurich, 1997: 46).

Fleury, in a discussion of the way that science education might help students to radically transform their relationship with knowledge (Désautels, Fleury and Garrison, 2002: 240)

reminds us that the old realist-constructivist controversy has been undercut so many times that there is little point in reactivating it. He suggests that it is now ...

viable and fruitful to consider the sciences as embodied, symbolic, material and discursive social practices, [and] that we should no longer bother with those positivistic reminiscences. (Fleury in Désautels, Fleury and Garrison, 2002: 249)

While I adopt a similar position, I am suggesting that we cannot simply ignore and reject that positivistic heritage, for two reasons. One, we are unable to ignore the positivist heritage because of its influence on language and tradition: vestiges of it remain influential. It is important, therefore, to question assumptions about words and propositions to see where and how they might carry these connotations. As Garrison puts it "we must not forget that positivism none the less remains culturally dominant" (ibid: 250). Two, and perhaps here I am showing a great naïveté in the eyes of some post-modern theorists, I cannot reject positivist methodologies and assumptions as used within the sciences; with Lather I reject the hegemonic status of these practices and I reject the assumption (I repeat, it is the assumption I reject, not the possibility) that they are even vaguely relevant in the social sciences; I reject the claim that it is the only valid form of science, a claim that I take to be called *scientism*, not positivism.

It is clear to me that the people who write the textbooks on research methods within the social sciences are commonly social scientists who have little knowledge of, or empathy for, the physical sciences. Those who use these texts and who also use statistical methods appear to, at most, gather quantitative data and apply elementary statistical tests that have been taught for half a century. There is little reference in these texts to more advanced modelling techniques, or to exploratory data analysis, or multivariate analyses, or specific forms of analysis linked to single subject/case design or other specialist techniques within the behavioural sciences. People with these interests use other, more specialist, references and journals. From the field of special education, for example, Alberto & Troutman's (1999) text describes single-subject and other designs developed and used within Applied Behaviour Analysis, and Wicks-Nelson & Israel's (2003) chapter on research methods devotes as much space to single-subject design as to experimental method.

My first voice continues to be confused. Why, therefore, it asks, am I teaching quantitative research methods? What political games am I implicated in through the very fact of my teaching this work? I see teachers coming into the course with positivist beliefs. Yet, at

the same time, if I leave the question of belief in the material sciences in limbo then I perpetuate the cycle of misinformation and division which creates these two 'disciplines' of social and physical sciences (or society and nature, in Latour's 1993 text) as different entities or paradigms, rather than two different perspectives on the epistemological issues pertaining to the worlds we experience.

What do I do as a teacher in this situation? I do two things. First and foremost, I modify my teaching on the basis of my current perceptions. In this sense, my teaching is always experimental - I am forever adjusting my actions to take my understandings into account, and vice versa. This is what I refer to, following Schön (1983), as reflection-in-action. This constant adjustment accounts for my love of teaching - Ernest explains this attachment in physiological terms - something to do with an adrenaline buzz. Secondly, I check out my perceptions and wonder about them. Here, my favoured tools are based on Brookfield's (1995) four lenses (autobiographical recollections, student perceptions, colleagues' understandings, and existing theory or literature (below: 164)), and on Smyth's (1992) four critical questions (based upon describing current actions and beliefs, informing myself about different ways of looking at this issue, confronting my assumptions and seeking hegemonic effects, and reconstructing my actions in ways that might address these issues (below: 170)). This is how I blend idealism with pragmatism: I blend them in the praxis that follows this kind of critical reflection on my practice. (See chapter 4 for the detail of this analysis.)

Exhibit 2.1.1 Voices:

Karl: You call on critical theory - you use Smyth's four questions (below: 170) which were, of course, adapted from Habermas . So, you accept its importance?

Hélène: And I see, Ernest, that you are using textual analysis in your work. So you accept its validity?

Ernest: Oh yes - as a critical realist (or scientific realist), I recognise the importance of both postmodern theory and critical theory. I recognise that other forms of realism are not so accommodating - they tend to be more positivist, they tend to assume that science is leading us toward an ever better understanding of the physical world. I see it as more complex than that. [I cannot say more because there are no resources for me to work on this territory. Elaine has cut my budget and is spending her time in your territories - and I can understand that because of their social importance. Science has had more than its fair share of the cake - but I shall keep involved in your *ongoing conversations*.]

Ernest has taken over, as he tends to do. No longer is he that sensitive new-age non-gendered persona of earlier pages. In the paragraph that preceded exhibit 2.1.1 he had taken over my voice as a teacher. He was pre-empting, he was beginning to tell the story of me (Elaine) as praxitioner. He was sucking Hélène's and Karl's stories into his own. Critical realism does this - it recognises current theory, whatever it is, as data within its own domain.

"[T]he critical realist conception stresses that society is both (a) a pre-existing and (trancendentally and causally) necessary condition for intentional agency (Durkheim's insight) but equally (b) as existing and persisting only in virtue of it. On this conception, then, society is both the condition and the outcome of human agency and human agency both reproduces and transforms society. However there is an important asymmetry here: at any moment of time society is pre-given for the individuals who never create it, but merely reproduce or transform it." (Archer, *et al.*, 1998: xvi)

Critical realism operates, in this way, like a Black Hole: all human activity and products, including academic texts, are encompassed within it as data. Yet in exhibit 2.1.1 Ernest recognises this and makes room for other voices. In this way she/he defers to other voices, and recognises that critical realism is merely a model. And Ernest, as a voice in my thinking, is willing to step aside. I am not a Critical Realist, any more than I am a Postmodernist or a Critical Theorist, although I am all of these things at times. If I must be named, then I would claim, strategically, to be a Praxitioner.

Voices from the social sciences and philosophy: modernism, relativism, postmodernism

My second *voice*, Hélène is the one that celebrates the creativity of humanity and of language: where the first voice creates descriptive and explanatory models, the second voice explores difference and the need to open up assumptions and value deviance and novelty. Unlike my first voice, it does not seek to identify causality or to reduce splendid variations to patterns or theories that might predict future events. This is the voice that critiques the tendency of the sciences to make arrogant claims that only certain forms of empirical knowledge are authentic, or valid, or worthy of being counted as facts. This is the voice that opposes positivism. This voice owes its existence to feminists and others who, like Haraway (1996), have challenged the hegemony of the sciences, or, like Burr (1996), have explored postmodern constructions of self within discourse, or, like Davies (1992), have identified effects of discursive and textual practices, or, have, like Jones

(1991) or Fine (1991), demonstrated ways that postmodern research methods can be used to produce new socio-cultural analyses of biases in school achievement.

Twentieth century theorists of language and the constitution of sense experience have rendered the classic rationalist and empiricist philosophies obsolete. Contemporary discourses such as psychoanalysis, feminism, and postmodernism propose and require alternative ideas of subjectivity. (Flax, 1993: 96)

This second voice flirts with, and identifies with, feminist theories of subjectivity; it leans toward Butler's (1990) argument that gender is an effect of culture, rather than the contrasting essentialist positions which suggest that there is such a thing as a unique female identity; it recognises the substantial work carried out by those who follow Foucault's approaches to analysis of subjectivity as the outcome of discursive practices (1966, 1984a, 1984b), it takes note of all those investigations which look into relationships among discourse, language and power within historical and cultural settings. This voice asks: Now that we understand more, in principle, about the ways that cultural forces and plays of power are implicated in all our actions and thoughts, how might this knowledge affect our futures?

This second voice, or choir of voices, includes those of postmodern *social constructionism*. Social constructionism refers to "the interpersonal processes through which humans create the reality they experience" (Morss, 1996: 6). This second voice asks: Now that we know that humans create the reality they experience, how are we using that understanding to shape the social domain?

Postmodernism has opened up, for me, new ways of thinking about the self in terms of identities, Wittgenstein's 'Inner' (Johnston, 1993), subjectivities, and the like. These understandings have shifted Ernest's domain away from being a realist territory based upon an essentialist ontology where the value of particular models was linked to their explanatory power in terms of scientific epistemology. Instead, Ernest has become a post-essentialist, post-positivist scientist. In contrast, the voice of Hélène includes voices of post-structuralist feminism which stand in clear opposition to modernist psychological models of a unified self. This has given me the freedom to see personality as an unnecessary construct, and to be open to other, less unified ways of understanding the self and its potential to act, strategically, in various ways within the conflicting needs of a pluralistic value system.

This approach also increases rather than decreases my personal responsibility - from this perspective, I do not have the luxury of leaving all of the thinking to others who might class themselves as experts: I have a responsibility to decide for myself, without the security of fixed principles to guide me.

Individual responsibility is increased, rather than decreased, in the world of a postmodern psychology of social construction. (Morss, 1996: 44)

Yet, neither do I have the freedom to choose anything at all, by whim, or at random: there is always, already, previously structured, existing social and cultural knowledge which constrains our options. Schrag's identification and critique of the cultural spheres of modernism (Schrag, 1997, see below: 142), for example, reminds us that knowledge which cannot be easily jettisoned (even if we wanted to) has been accumulated in various domains/spheres - the genies are out of their various bottles.

This position is in direct contrast to that of many postmodern theorists and to those critics of postmodern theory who regard postmodernism as nihilistic, self-serving, and unduly theoretical. No longer is it easy for me to believe that those who theorise or pontificate know better than I do, and that I can leave others to act on my behalf. My responsibility is to take part in the ongoing conversation: to sit on the fence and say nothing becomes a strategic action that I might choose at times, in order to promote the voice of others.

These voices - these choirs - of realism and of relativism vie for attention in my way of thinking. But I do not see them as incompatible. Rather they are two different vocabularies for describing the same kinds of experiences. And, at this particular time when both sets of voices are strong within academia, I want to move beyond a focus on them and their characteristics. I want to explore, instead, what their different insights might offer in support of the emancipatory project of shaping a better world, a safer world, a fairer world.

Yet even this is problematic - why are these values important? Are they important to explore only because the other voices exist and give voice to them? The vision of a better, safer, fairer, more plural world is not shared by all cultures, and its recent evolution in Western societies has not prevented some Western nations from condoning ongoing infringements against human rights. The vision of creating a fair world is, perhaps, an

example of a *wicked problem* (gloss 6, above: 22), something that can never be solved, only resolved, over and over again.

Whereas in this chapter I discuss different voices within my self, in later chapters I extend a similar logic to voices within other entities, such as groups, or society at large. In this way, I shall address, later, the pragmatic problem of differences in social values across cultures.

Voices from praxis and philosophy: critical theory

The third *voice*, Karl has its roots in critical theory.

Critical theorists often attack positivism and empiricism and attempt to construct alternative epistemologies. Critical theorists also reject relativism, since the cultural relativity of norms would undermine the basis of critical evaluation of social practices and emancipatory change. (Bohman on *critical theory* in Audi, 1995: 170)

This voice has links into the critical aspects of research activities such as reflective practice and action research, and is well articulated through the literature of critical pedagogy. Whereas the other two voices tend to distil theory and represent it in the form of knowledge claims, this voice questions - it examines the power differentials and the ways that they might be altered, it speculates about what is not being said within a report, it asks who benefits from the silence. This voice, closely linked to voices of modernism and postmodernism, gets its questioning strategies from the critical literature of resistance and activism, and from the postmodern analyses of power and discourse. This voice questions and demands, but does not provide, answers.

This is not the voice of *emancipatory interest*, Habermas third cognitive interest *20, but it is closely related to it. Whereas Habermas' *emancipatory interest* subsumes the other interests and goes beyond them, Karl-as-voice retains the questioning, challenging role of attempting "to restore to consciousness those suppressed, repressed, and submerged determinants of unfree behaviour with a view to their dissolution" (Cohen *et al*, 2000, gloss 20, page 100)) but she/he does not subsume the other voices; Karl-as-voice is not a person; she/he has no need to replicate reasoning, or adopt findings, or subsume other voices to create some integrated whole which can relate to other people. Rather than thinking of Karl as a *subjectivity*, I prefer to think of Karl as the voice of an inevitable challenge to assumptions and ideals, a challenge that constantly undermines privilege,

strives for emancipation, and confronts hegemony. Karl does not represent only a Marxist/socialist position, although those are his origins: she/he is a voice of analysis which seeks emancipation of all sorts; she/he is critical of the sexism associated with a Marxist position; she/he has a specific role to play, as do Ernest and Hélène. I do not think of these voices as subjectivities, instead they are voices from different perspectives. Together they (and a multitude of other unnamed voices) compete for my attention (they combine in different ways to produce my current subjectivity) within whatever discourse I am immersed in).

Each of my voices represents a cluster of meanings which at the level of empirical research link "method" to "question" to "knowledge claim". The first two voices are similar to Habermas' technical and practical interests. The third voice is different in that it does not subsume the other two - it retains the concerns for praxis and critical theory as listed but it acts as a voice that confronts and challenges the insights of other voices. Thus each voice has a methodological, an ontological and an epistemological tendency; each voice

²⁰ Gloss on Habermas' three cognitive interests

Cohen et al (2000) introduce three interests which are not unlike the voices I refer to.

Habermas (1972) constructs the definition of worthwhile knowledge and modes of understandings around three cognitive interests (1) prediction and control, (2) understanding and interpretation, and (3) emancipation and freedom.

He names these the 'technical', 'practical' and 'emancipatory' interests respectively.

The technical interest characterises the scientific, positivist method ... with its emphasis on laws, rules, prediction and control of behaviour, and with passive research objects - instrumental knowledge.

The 'practical' interest, attenuation of the positivism of the scientific method, is exemplified by the hermeneutic, interpretive methodologies [of] qualitative approaches ... (e.g. symbolic interactionism).

The emancipatory interest subsumes the previous two paradigms; it requires them but goes beyond them It is concerned with praxis - action that is informed by reflection with the aim to emancipate The twin intentions of this interest are to expose the operation of power and to bring about social justice as domination and repression act to prevent the full existential realisation of individual and social freedoms The task of this knowledge-constitutive interest, indeed of critical theory itself, is to restore to consciousness those suppressed, repressed, and submerged determinants of unfree behaviour with a view to their dissolution (Cohen et al., 2000; 29)

Habermas is criticised for the static and potentially closed nature of his ideal speaker which is in contrast to Kristeva's notion of the subject in process (Lechte, 1994: 190). In order to interact with the complexity of post-structural subjectivity, Karl's voice is more dynamic than Habermas' structures would suggest.

represents a cluster of valid ways of viewing the world; by strengthening each voice and giving each more cultural knowledge (knowledge of cultural theory and life experience), I enlarge my ability to call on these voices and to choose how to act within any particular setting.

It is important to note that these voices are not, therefore, simple reflections of paradigmatic world views. Karl does not represent a Marxist perspective, Hélène is not, like Cixous, a noted feminist "creative writer and philosopher" (Humm, 1995: 39), Ernest is not a scientist in the way Rutherford is/was: each is no more than a voice which always speaks from the same, somewhat predictable corner of my consciousness as I (the subjective I, located within a discourse) decide what to say or do next. A sixteen year old asks to go to the toilet 5 minutes after class starts, and I am a new teacher in the school: Ernest reminds me of the physiology of the human body on a very hot day (the need could be real), Hélène, as discursive observer, notices the audience (adolescents who are awaiting my response: are they testing me?), Karl, seeking emancipatory change, reminds me of the oppressive structure of schooling (surely a 16 year-old can make up her own mind?).

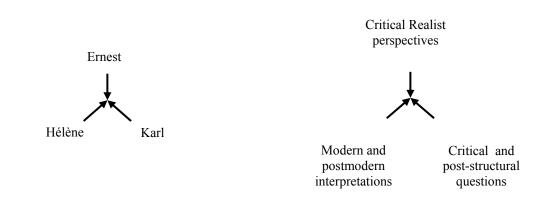
Karl's voice is specifically called upon to question assumptions and seek out hegemony. It could be thought of as part of the second voice, with its focus on interpretation and representation of the social world, its patterns and power structures, but of the voices that I am describing in this section, Karl's is the only one that is clearly post-essential and post-structural (the interpretive voice can be describing structural or poststructural patterns). This is illustrated in exhibit 2.1.2.

In this exhibit, the arrows pointing inward show that these voices/theoretical fields each impact on my construction of knowledge or my understanding, or my reflection-in-action. No single voice or theory acts alone - they all interact. The voices are not binary opposites referring to positions where one voice does not share characteristics of others. Instead they could be thought of poles separated from each other but with the space between them able to be occupied.

Nor are the voices fixed in any firm way. Ernest, Hélène and Karl were made up for the purposes of this chapter. I could have made up other triads and told a similar story:

pragmatic John (Dewey), or strategic Michael (Apple), or ironic Erica (McWilliam) could have emerged.

Exhibit 2.1.2 Diagram showing the three interacting voices described in this section



The three voices interact

In naming three dominant epistemological voices, I see them as interacting much as the three primary colours in a photographic image do: each is a component part of the whole, yet each can be thought of as separate. The voices influence each other, of course - Ernest and Hélène have grown up in a world informed by Marxist analyses; they are immersed in structural understandings of the social - but the key value of these three voices is in their work as analytical tools, when each stands in opposition to the others and disputes their positions.

At times each of my voices of theory disappears. At times the voice of realism swallows me up and I can see only the viewpoint of the critical realists who encompass the work of post-structuralist theorists within their bounds, as aspects of reality. This is the voice that emerges when I talk with those who are immersed in real world practice.

But when I talk with people who are immersed in discourses about power and language, then my language changes, my subjectivities change so that I am no longer a realist - I become a post-structuralist, a relativist. In this space I recognise that all knowledge is theory, and that the realists have set themselves an impossible task. Science, as I understand it, cannot match reality; it does not claim to do so; science itself is relativist - all theory is relative and defined only in relation to other theory. All theory is embedded in

language; all theory is dependent upon language; all our perceptions are presaged by language.

At times I am critical of both of these positions and wonder at the ways in which people are positioned and how it might be different. From Karl's perspective, I note that both Ernest and Hélène have a tendency to become theorists whose discussions have relevance only within the halls of academia and "applied" fields. The vaunted "trickle down effects" of their theoretical work tend to be very slow, and their espoused "interventions" can be ideological.

Yet this is not universally so. The voices I have described are all *voices of theory*; I listen to them with the sceptical ears of a practitioner, yet at the same time, I am not sceptical in that I recognise their value as a contribution to something more important. Something, or some things, are missing from the evolving model. My next challenge is to identify and describe these things that are missing for me as a practitioner. I propose three possible answers in the form of other voices: commonsense, irony and strategy. These three voices are not separate and distinct: I see them, instead, as being closely linked, or overlapping - they can be thought of as different aspects of the same chorus of voices, the *voices of practice*.

Section 2.2 Common sense, irony and strategy: a chorus of whispers

I think (...at least, I think, "I think"), and therefore, at times, and within many constraints, I choose how I will act. This choice guides my practice (my action) within the real world (all politicians and their spin-doctors know this). It seems to me, however, that what guides my practice is more than the *voices* of my epistemologies: Ernest, Hélène and Karl do not normally come into my day to day thinking, or my thinking when I am teaching a class. It is as though these voices are very much in the background unless they need to be called upon to speak, with some authority, in relation to a matter of fact.

I think of the three voices I am about to discuss as whispers: not because they are unheard but because, within the world as I see it, none of them is as influential as it could be. By considering the ways that these three whispers might have a greater overt influence on discourses related to teaching and teacher education, I am opening up the possibility of

investigating, *in situ*, the ways in which these constructs are sustained and undermined. My assertion is that if people are not able to exercise and improve skill in the areas of (a) making commonsense decisions, (b) bringing ironic, creative elements into pragmatic choices, and (c) participating strategically in political praxis, then they/we tend to become, daily, more disenfranchised, and our societies more divided.

Common sense and commonsense

Ernest, Hélène and Karl influence me because they affect my *commonsense* which has its origins in the physical reality within which I live: my genetic heritage, my metabolic needs and processes, my social contacts and relationships, the intellectual challenges that inspire creativity and change, the inexplicable, the spiritual, and the emotional. My commonsense is affected by the embodied experiences of living within physical/material, linguistic, and social/political worlds: it is influenced by learning.

I use *common sense* to refer to a public, shared, communal, sense of what is held to be true, and *commonsense* to refer to an individual's construction. The difference is in the unit of analysis, community as opposed to individual. The common sense of a community is some enhanced, cultural amalgam of all of the commonsense(s) of its members, past and present. The distinction is not a stable one, rather it fits the model of a *tangled hierarchy* (Hofstadter, 1980, above: 80) and on which I expand in chapter 5.

When I refer to commonsense in this way I am not suggesting, as did the Scottish common sense philosophers arguing in opposition to Hume, that through our commonsense we are calling upon some intuitively known general truths which, along with our sensations, yield knowledge of external objects (Schneewind on *Scottish common sense philosophy* in Audi, 1995: 719). The very opposite: commonsense as I am defining it is the form of knowledge that we, individually as a result of our personal subjectivities, fall back upon in order to measure our experiences. Commonsense is the distillation of learning. This means that the function of education is to influence the common sense of communities, and the commonsense of individual learners - and it is the place of education to be informed and influenced in the process. Individual commonsense is constantly changing as we experience the worlds, physical and social, that surround us. When I teach arithmetic, I aim to give my students a commonsense understanding of number, something that is not formulaic, but which allows them to have the confidence that, given time, they will be able

to use numbers as tools. As a pragmatist, I believe that my commonsense is improved through praxis - it is through the study of theory-linked practice in the embodied space of the classroom that I come to develop my commonsense in relation to teaching, and to understand how to foster learning.

Apple is correct when he identifies *common sense* (the shared, public, communal common sense) as a site of political action. Apple (2003) argues that conservative educational policies have taken over the ground of common sense that was once held by more liberal, progressive educational theories.

Tactically, the reconstruction of common-sense [common sense] that has been accomplished has proven to be very effective. (Apple, 2003: 184)

And

[B]road ideological effects - for example, enabling a coalition between neoliberals and neoconservatives to be formed, the masculinisation of theories, policies and management talk - are of considerable import and make it harder to change common sense in more critical directions. (Ibid: 191-192)

The point that I wish to emphasise is that individual commonsense is linked to agency, and it can be linked to critical political action through the development of shared, collective common sense.

Saul's discussion of common sense as shared knowledge (Saul, 2001: 19-64) provides yet another link with my later arguments. It begins:

What is common sense if not shared knowledge?

It is not understanding. Many may find this a difficult idea to accept - that we can know something we don't understand. Not only can we know it, we can use the knowledge. We must simply be careful not to slip into superstition.

Curiously enough, that problem is more theoretical than real. We talk a great deal about analysis and expertise, but most of what we do we don't understand. We are able to do these things because we do know and because we share this knowledge with others. Shared knowledge or common sense lies at the core of any successful society. (Saul, 2001: 19)

The notion of *common sense as shared knowledge* is valuable because it places fresh importance on the ways in which communities and groups negotiate their ways of interacting with each other. The argument that shared knowledge lies at the core of a successful community presages further discussions (future discussions) about how

knowledge emerges within the discursive practices of self-organising social systems, and what the implications of this notion might be for teaching.

In particular, Saul identifies the need for societies to find ways to think more collaboratively, to develop understandings more communally, and to solve problems in more integrated ways.

What prevents us from acting as if we were ... intelligent is our unwillingness to insist upon integrated thought - that is to act as if we shared knowledge with others in our society. (Saul, 2001: 64)

This echoes Wiener's words "one of the most surprising facts about the body politic is its extreme lack of efficient homeostatic processes" (quoted in Johnson, 2001: 143): both statements suggest that if we were better able to work together collectively, then our social stability would be improved. (Note that Wiener's notion of homeostasis has been introduced above: 58.)

It is difficult to point to the culprit who is unwilling to "insist upon integrated thought," - barriers to such developments tend, I believe to be structural rather than individual - but it may be helpful to question the structures and to wonder about fostering communal action to address them. This might open up opportunities to work in more integrated ways so that knowledge from different disciplines is shared in efforts to find new approaches to persistent and emerging social problems. This notion has links with the work of Latour which is discussed in chapter 3.

Irony

Rorty (1995) defines an ironist as someone who fulfils three conditions:

(1) she has radical and continuing doubts about the final vocabulary [i.e., the set of words she employs to justify her actions, her beliefs and her life] she currently uses, because she has been impressed by other vocabularies, vocabularies taken as final by people or books she has encountered; (2) she realises that argument phrased in her present vocabulary can neither underwrite nor dissolve these doubts; (3) insofar as she philosophises about her situation, she does not think that her vocabulary is closer to reality than others, that is in touch with a power that is not herself. ...

I call people of this sort "ironists" because their realisation that anything can be made to look good or bad by being redescribed, and their renunciation of the attempt to formulate criteria of choice between final vocabularies, put them in a position which Sartre called "meta-stable":

never quite able to take themselves seriously because always aware that the terms in which they describe themselves are subject to change, always aware of the contingency and fragility of their final vocabularies, and thus their selves. (Rorty, 1995: 97)

I have avoided labelling people as ironists by recognising irony as a voice within the chorus of voices that seek our attention when we act in the world: irony is a possible component in every-person's subjectivities, just as commonsense is.

The opposite of irony is common sense. For that is the watchword of those who unselfconsciously describe everything important in terms of the final vocabulary to which they and those around them have been habituated. (Ibid: 97)

Rorty's use of *common sense* is different from mine. He refers, here, to a form of argument where the protagonist does not question his/her own taken-for-granted statements, the statements that she/he uses to justify beliefs, actions and lives: she/he simply assumes that ways of viewing the world, other than her/his own, are wrong. Rorty's distinction is helpful, provided the distinction is located within the individual, rather than between individuals as he has done. By labelling particular people as being of one sort or the other, Rorty polarises people and sets them in defensive opposition to each other: their energies are then diverted (if they choose to speak with each other) into argumentative positioning about which is the better stance, and under what circumstances. It is preferable, I suggest, to consider both common sense and ironic positions as being separate voices within myself: in this way I choose in any particular situation which assumptions/theories to treat as commonsense, and which to regard as tentative or open to ironic interpretation - and my choices will change, depending on my context, depending on the subjectivities that construct me and which I project into the current situation.

Irony as defined by NCCDEL (above: 22) is an "incongruity between what is expected to be and what actually is"; NSOED (above: 22) defines it as:

1 Dissimulation, pretence; *esp.* the pretence of ignorance practised by Socrates as a step toward confuting the adversary. ... 3 *fig.* Discrepancy between the expected and the actual state of affairs; a contradictory or ill-timed outcome of events as if in mockery of the fitness of things. ... (NSOED)

Irony has the potential to distort and to undermine, to confute, an all too solid belief in commonsense or in the dominance of one particular set of epistemological assumptions. Both irony and commonsense are tools in the project of addressing the *mobilisation of*

meaning (Stronach and Maclure, 1997, below: 246) that confronts us now. But they alone are insufficient because they do not necessarily address Karl's questions. It is possible for a debate between Ernest and Hélène to avoid any focus on emancipation.

Strategy

How, then, should we act? Given our knowledge about science and society, and our ability to question our assumptions and to be part of social contracts, what choices do we have, and what might be the consequences of the actions we choose? I have chosen *strategy* as the third perspective on my practical options for action because I recognise the need, already discussed above, to be tactical in the choices we make. I argue that we are able to be tactical and strategic insofar as we are aware of the kinds of options and choices that are available to us, and of the likely consequences of these actions.

With Smith I recognise that the struggle to understand how humanity might proceed henceforth could be described as a battle between "unfettered capitalism versus universal human rights" or to consider that ordinary people suffer as a result of world leadership which displays "the contempt of common life in all forms of fundamentalism" (Smith, 2002, above: 47). With Apple (2000: 229), I recognise that, tactically, the reconstruction of common sense can be politically very effective. The changing of the waters I advocate is one where the practical voices of commonsense, irony, and strategy join forces with the theoretical voices of Ernest, Hélène, and Karl to construct a space where individual actors can make informed choices about how to act. This is not a substantive change to the way in which educational systems currently operate; instead it represents a change in the way we think about the role of the individual actor within such systems, and it represents a refocusing of the goal of education. If the goal of education is to enable the learner to develop both the theoretical competencies and the practical skills discussed above then current commonsense understandings of both knowledge and community will change. Understandings of knowledge as constructed and local will grow to allow ironic interpretations more space; recognition will emerge about the ways in which patterns of behaviour within communities create our lived experiences. I advocate a form of education which recognises that knowledge construction is a communal activity (as well as an individual expectation). I advocate a changing of the educational waters so that all participants in education (teachers, students, parents, policy makers, researchers, review

officers) are reconstructed as researchers and learners. This represents a strategic realignment, a re-focusing, not a restructuring; it is not novel; it is in tune with educational changes that are already taking place; and I shall argue in later chapters it advances educational policy-making by providing a more holistic and pragmatic theoretical base which recognises the importance of postmodern perspectives.

Stronach and Maclure (1997) argue that it is no longer responsible to base one's judgements upon an appeal to foundational truth: similarly, Smith (2002, above: 47), on a "fundamentalist" ideology; similarly, Rorty (1995, below: 130), on a "final vocabulary"; while Morss (1996, above: 98) reminds us of increased responsibility in a postmodern world of social constructionism. The responsibility for dealing with the unruliness of knowledge, argue Stronach and Maclure, lies in the text, not in foundational principles or criteria:

Such an argument begins to address the criticism of those critical theorists who would hold that deconstruction and/or postmodernism is irresponsible in its relativism. The charge is reversed: it is irresponsible to continue to privilege the escape clauses of a foundational appeal. (Stronach and Maclure, 1997: 98)

The responsibility is not removed, but the questions are shifted from foundations to contexts.

Section 2.3 Self as a multitude of voices: an emerging model

How can I, in the midst of all of my conflicting voices pretend that I make sense of anything? Yet we do, as people, make sense of opposing ideas. Understandings of commonsense, praxis and pragmatism have allowed me to think freshly about the place of theory in relation to practice. It is under the influence of Ernest that I have developed a model to show the ways in which the many voices I am describing might come together and provide some tools for visualising the kinds of decision-making processes that I, as praxitioner, might employ. I locate the named voices I have described so far, in different theoretical positions, none of which, alone, reflects all of the things that influence me as a teacher or as a praxitioner, but all of which, together, provide an image of a space in which I have some autonomy or some freedom to think and to plan my actions.

Prism of praxis

The model, in exhibit 2.3.1, is of a prism; a triangular prism where the triangle on one end of the shape has Ernest, Hélène and Karl standing guard on each of its vertices (this is the triangle nearer the viewer). *Commonsense*, *Pragmatism* and *Praxis* guard the matching vertices on the other end of the prism.

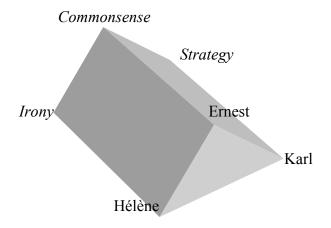
Exhibit 2.3.1 Diagram of the prism of praxis

This model is an illustration of one way of relating the six voices or orientations described above.

The theoretical voices described in section 2.1 are represented as vertices of the triangular surface on the front of the diagram. This surface can be thought of in terms of exhibit 2.1.2 (page 102) which shows how the three interacting voices (Ernest, Helene, and Karl) might each influence the actor.

Practical orientations:

common sense, irony, strategy.



Theoretical orientations:

Ernest, Hélène, Karl

Similarly, the hidden triangular face that is further from the viewer represents the three practical orientations (commonsense, irony and strategy) described in section 2.2.

The surface of the prism is intended to represent the boundaries of my agency: the interior represents the possible actions and ideas that I am able to entertain within any particular context. At times I operate nearer the practical end, and at other times I am located nearer the theoretical end. At times I am influenced more by Karl's voice and plan strategic action, at other times I am more influenced by commonsense or ironic interpretations and am more influenced by Ernest and Hélène. My location within the prism changes constantly.

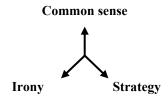
Of greater importance is the volume of the prism. Imagine how it would collapse and how narrow it would become if Karl disappeared, or Hélène, or Ernest, or strategy, or commonsense, or irony. My argument is that all of these voices are crucially important aspects of my freedom to act in a variety of ways.

The prism is my prison. I cannot escape it. But I can enlarge it by stretching my knowledge and experience of theory and real-world activity; I might change its shape by introducing new voices; I might increase its scope by pushing its ends further apart and increasing the possibility for embodied activities. Theory and practice then become useful notions in the same way that Utopia or infinity are useful notions - they indicate a direction, but not a destination.

What is important in this model is not the names or the descriptions that I have given to the vertices. It is the notion that finding room to move, finding the ability to speak, or to have a voice is connected to having knowledge of viable options. I argue that such knowledge comes from both theory and practice, and that within both theory and practice there are alternatives that have been marked out by paradigmatic differences between various ontological, epistemological, methodological frameworks. I argue that for a praxitioner it is not a case of choosing one paradigm and defending that choice. For a praxitioner the questions are instead pragmatic questions about the likely short term and long-term consequences of various forms of constrained and creative action, and the questions inspired by social constructionism, about the ways in which we might communally plan our actions so that we create the kind of society in which we would want to live.

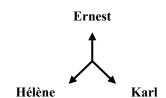
Exhibit 2.3.2 is a model designed to show the choices I as actor have when selecting my actions. Normally, my commonsense dictates and I act without conscious thought, but when I do pause and choose an action, I have choices: many, many choices - I have named and discussed a few of them. This kind of model, which I refer to as a trivector, is intended to illustrate the apparent choice an individual has, within a given context, to act in various ways. Even though the physical and social context constrains possible praxis, my argument is that individuals have various forms of freedom to act - freedoms which are enhanced by learning and adapting to change. This is, in a nutshell, is why education is important.

Exhibit 2.3.2 A *trivector* showing how different actions and voices provide room for movement



Actions could be commonsense actions, based on current understandings, skills and assumptions, or they could be more informed by ironic and strategic understandings

I can choose, in a particular situation to listen to or act on the basis of my understanding of my different voices. Whereas diagram 2.1.3 has arrows pointing inward to represent influences on my understanding, so, here, the outward pointing arrows indicate that I have freedom to choose my actions. I refer to this model as a *trivector*.



Toward the next chapter

In this chapter I have argued that within an individual self there are voices which can be discerned as having their origins within different discourses. I find it helpful to think of these voices as I read the texts that surround me (in writing, in conversation, and as the physical texts of the perceived world). Voices are a tool for viewing similar objects through different lenses, and for attempting to understand other ways of knowing.

The model as explained so far has considered only the inside of the prism, and the model has been applied only to the construction of the individual. In the next chapter I expand the model to begin to consider the construction of groups or collectives, and I explore ways of understanding how the voices of each of my protagonists might interact with the outside world (the space outside the personal prism) in order to explain expansion, adaptation, and change.

Chapter 3 Toward what? Transcending modernism/postmodernism

Introduction: In search of a missing word: might it be pragmatism?	115
• Exhibit 3.0.1 Viewing three worlds from the outside: an emerging mode	el 116
Section 3.1 Toward pragmatism	117
Toward pragmatic validity	117
Beyond individualism toward collective choices	119
Distinguishing between postmodernism and pragmatism	121
Approaching pragmatism from a variety of directions	122
Section 3.2 Irony? Wittgenstein, the pragmatists, and the claims that can (made by philosophy	(or cannot) be 127
Wittgenstein	127
Pragmatism in the late twentieth century	130
Keeping the conversation going	131
Pragmatism and social openness	131
Section 3.3 Strategy: Schrag, on praxis after postmodernity	139
Section 3.4 Common sense: Latour, Serres, and the emergence of knowledg	ge 144
Beyond "different repertoires", toward "quasi-objects"	144
Serres and the need for a new sacred object, a successor to science	146
Section 3.5 Constructing the self: a pragmatic approach	151
Models of self	152
• Exhibit 3.5.1 Diagram of an emerging model showing the limits of my actions and thoughts	possible 155
Toward collective praxis	158

If educators make ...

a pragmatist and postmodern move ...

they will be required to criticise, reinterpret, and, possibly, reject at times, conceptions of rationality, hierarchy, expertise, accountability, and differentiation that many, if not most, were trained to value and promote.

(Cherryholmes, 1999: 91)

[A] properly developed pragmatic orientation can lead us beyond many of the sterile impasses of so-called "modern-postmodern" debates.

(Bernstein, 1992: 818)

Introduction: In search of a missing word: might it be pragmatism?

My aim in this chapter is to explain why I have chosen *pragmatism* as a construct to act as a counterfoil to the three world views I have referred to through the *voices* of Ernest, Hélène and Karl. I want to look afresh at whatever characteristics might be common to the three views that have already been described; in order to do this, I have looked for philosophies which oppose in some way all three of them, and which allow me to understand what appears to be missing from them.

This chapter locates pragmatism as an eclectic world view that allows me to transcend (below: 143) the debates between structuralism and post-structuralism (there are more important things to consider, yet these debates are not irrelevant). My aim is to integrate them into a coherent picture which neither undermines nor dilutes the component parts so that contrasts remain strong: this is the story of the emergence of a fourth voice which I call Mea-nui²¹. This voice is not separate from the others; all voices are reciprocally coconstructed in complex ways; yet, by considering pragmatism and some closely related positions, I show that a fourth voice can be discerned and that this voice is of particular relevance and use to teachers.

Exhibit 3.0.1 illustrates this notion. The words that I adopt within the diagram are very tentative - perhaps I would have been wiser to have named the vertices Ernest, Hélène, Karl and Mea-nui. I am fully aware that other people may have gifted the words I have selected with particular meanings that I have not acknowledged (as I toss up for example, whether to call the position associated with Hélène postmodernism, or interpretivism, I hear conversations in which each of the voices have their say:

21 Gloss on Mea-nui

He aha te mea nui i te ao? He tangata, he tangata, he tangata. (Whakatauaki)

What is the most important thing in the world? It is people, it is people, it is people.

By naming my fourth voice Mea-nui, I suggest that it represents those things that are most important in the world: people. Yet this in no way denies the importance of the environment, on the contrary, the environment (the material world) is treasured: it represents, in a multitude of ways, our ancestry. Similarly treasured are tikanga (culture) and Te Reo (language). Mea-nui therefore represents taonga (treasures of all sorts, from material, social, and linguistic worlds, and also, the world of wairua / spirituality / well-being).

I cannot speak for Māori, but I adopt the name, Mea-nui, as one of my voices. I adopt it respectfully, in order to honour a kind of holism and collectivity which I have not found in Western academic literature. I adopt this voice as a catalyst to support my attempt to step outside the constraints of interpretive research.

"Call it relativism," says Ernest;

"I stand for much more than interpretation," says Hélène;

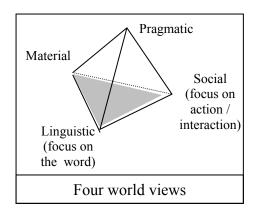
"It is not important," says Karl).

The point I am making is that this fourth vertex represents a different perspective: in this particular reading, I have chosen to call it pragmatism, but that is not necessarily the only possible choice; it is also true that when I refer to pragmatism in this way, I distort it so that its meaning is changed. Words are both tools, and approximations, their meanings change.

Exhibit 3.0.1 Viewing three worlds from the outside: an emerging model

Three views discussed in the previous chapter (Ernest's, Hélène's and Karl's) can be thought of in two dimensions as a triangle with each viewing-point being a vertex. By seeking a fourth viewing perspective I am able to look from a third dimension onto that triangle The imaginary triangle becomes a tetrahedron with the addition of a fourth voice, Mea-nui, at the apex, looking down on the other three vertices.

I struggle to name the four vertices or world views that are guarded by Ernest, Hélène, Karl and Meanui. The original three vertices might refer to the three worlds views, (material, linguistic and social). Each world has associated with it a bundle of assumptions, understandings, beliefs, research strategies and the like. (The facts that these worlds coexist and overlap, and that the language has no clear meaning are accepted.) Within this model the



fourth world view is proposed to provide a different focus from material, linguistic, or social perspectives. The location of pragmatism as viewing the others is not intended to give it hierarchical status - by rotating the tetrahedron, it is possible to see that each vertex, in turn, can look 'down' or 'across' at the pattern created by the other three.

The visual metaphor (my use of words such as 'views', 'clarity', 'perspective', 'focus') is deliberate. I do not propose the *existence* of these particular concepts, rather I use the words to try to express the possibility of viewing phenomena differently depending on *choice* among a range of possible assumptions, methodologies, understandings, epistemologies, and other metaphysical constructs.

This fourth voice, Mea-nui, focuses on selecting the best possible action, given her/his understanding of all possible actions available to her/him. She/he acts eclectically, accepting and adopting ideas from each of the other worlds, she/he selects from all of these available tools and ideas, and makes pragmatic decisions based on all the available evidence, in order to work toward

desired goals. Whereas the other voices dispute among themselves (they debate assumptions, methods, interpretations ...) in a desire to match theory to phenomena as we experience them, Meanui listens to these debates and uses them as data: everything she/he knows and understands is data which will guide her/his advice to me about how I should act. Within this model, it is pragmatic Meanui who has the final word in accounting for my actions. This does not make her/him more insightful or significant than other voices, indeed, at times her/his voice is no more that an echo of their insights: instead, Meanui's voice is one that speaks against any kind of prescribed ideology—she/he can be accused of all sorts of ironic inconsistencies as a result of her/his constant search for both constrained and creative ways of acting morally and ethically in a world of plural values. Timing (the relationship between time and action) gives Meanui and apparent domination, but her voice is no more important than that of others.

In this chapter, after a brief foray into early pragmatism, I call upon (a) Wittgenstein (1953, 1967) and some late twentieth century pragmatists, (b) Schrag (1997) who discusses the self *after* postmodernity, (c) Latour (1993, 2002), who argues that we have never been modern, and (d) Serres (1995) who has a very wide-angled lens through which to view the world. These threads are pulled together in the last section of the chapter where I expand on the model developed in the previous chapter (the prism of praxis). The purpose is to show how an individual (then later, a collective) might be thought of as acting pragmatically even though she/he is informed by a variety of voices and propensities to act.

Section 3.1 Toward pragmatism

Bernstein (1992) and Cherryholmes (1999) provide valuable background reading to support this section. It is not my intention to attempt to summarise pragmatic theory, or to suggest that I have advanced its construction in any meaningful way. I seek only to use it as a vantage point from which to view other theory, yet this role of allowing me to stand aside from theoretical positions which I admire, is very important.

Toward pragmatic validity

In addition to justifying pragmatism as a theory of choice, this chapter is also a shift in the direction of a *thought experiment* (discussed below, chapter 5: 217). I take it as axiomatic that new knowledge/understanding emerges collectively in situations where people jointly undertake a project and are motivated or choose to work together to produce a shared

product (as occurs, for example, when a diverse group of tertiary teachers comes together to develop a qualification to address emerging needs: the mingling of different positions produces a stronger product than any single individual would (provided agreement can be found, that is) yet independent voices are not assimilated). I argue that when one is working alone, a similar process takes place in that voices arising from different epistemologies (or ways of viewing the world) interact with each other. This chapter takes the form of a *thought experiment* in which such imaginary interactions occur, but which looks toward a future where real discussions (collective discussions) might take place. This means that there are places where questions are left open: I seek future discussion in which the validity of these emerging ideas is explored, yet at the same time, I am defensive, cautious: I do not write naïvely. When I develop a model, for example, I talk about it with imaginary and real colleagues, I test it, I try it out in a variety of situations. I write about it only because it has proved resilient in a variety of situations. It is a simple model, yet it is complex to explain.

I write pragmatically: I seek judgements about the validity of my discussion in relation to the circulation of power, the appreciation of beauty or aesthetics, and various ways of understanding knowledge construction. In a shift beyond his earlier distinction between vulgar and critical pragmatism (vulgar pragmatism is akin to my notion of constrained pragmatism (above: 16), and to the common use of pragmatism discussed above: 27), Cherryholmes argues that earlier readings of pragmatism which focused on short-term gain failed to emphasise aesthetics. The reading he gives to pragmatism is one which "sets the art and aesthetics of ordinary experience in the midst of power" (Cherryholmes, 1999: 7). This recognition of the place of ordinary experience attracts the practical teacher in me; yet at the same time it invites investigation into ways in which power, aesthetics and knowledge might interact.

Power, aesthetics, and knowledge, not necessarily in this order or in any stable order or set of interactions, produce anticipations of consequences that we continually write and re-write. (Cherryholmes, 1999: 7)

I commend Cleo Cherryholmes' (1999) text as an introduction to pragmatism; in particular I commend his collection of responses to a question about what it means to be interested in consequence*²².

Beyond individualism toward collective choices

Because I work more or less alone in the writing of this thesis, my opportunities to develop ideas in association with others are limited: this raises the expectation that I, alone, will write in ways that show my dialectic skill, my ability to argue a particular position, and to defend it against possible challenges. I carry out this defence in support of a more eclectic approach to theorising, a more collective approach to knowledge construction. In this chapter I show, by selecting among the materials I have read, how pragmatism has emerged as a phenomenon which serves my particular interests: pragmatism allows me to call upon the work of theorists who are not directly linked with this theoretical position: I call upon Wittgenstein, and I call upon more recent philosophers who do not recognise (or have moved beyond recognising) distinctions between modernism postmodernism. I present a picture of pragmatism as emerging within this context and show that the emergent entity has clear and close links with the existing literature; I do not set out to define pragmatism per se, nor to lay out its historical emergence to the present because this task is beyond the scope of this thesis, and such discussions already exist. The gloss on texts that promote or discuss pragmatism*23 provides a tentative classification of many of the texts I have considered in my scanning of the literature.

²² Gloss on pragmatism - Cherryholmes: we choose our way of life

Cleo Cherryholmes' (1999) text, *Reading Pragmatism*, contains, in an appendix, twenty responses to the question "What does it mean to be interested in the consequences of pragmatism?". This question is, of course, a pragmatic one in that it seeks meaning about consequences and ways of considering the future.

The responses quoted below are claims about the nature of pragmatic inquiry, its openness, and its consequences. Each hints at a philosophy which interests me as a teacher who wonders what and how to teach.

- 4 Because pragmatism is anticipatory and forward looking, it is inductive. Therefore *pragmatists are fallibilists*. Unless the future is like the past *and* we know the past completely and correctly, whatever we anticipate may be in error. Pragmatists expect that even our most deeply held beliefs may someday need revision (Cherryholmes, 1999: 124, italics in original).
- 15 ... Because of their inclusiveness and commitment to democracy, pragmatists ascribe to the tenet:
- 16 Do not block inquiry. Pragmatist inquiry continually reweaves our web of beliefs and tastes (ibid: 126, italics in original).
- The result (a pragmatic outcome) is that as we anticipate consequences of our beliefs and actions, we choose our society and way of life (ibid: 126, italics in original.).

If educators make a "pragmatist and postmodern move" as suggested by Cherryholmes (1999, above: 28) I argue that it is also important to maintain a balance so that modern ways of thinking are not undermined: the model I am exploring in this thesis allows both epistemologies (the logical and the rhetorical in Cherryholmes' terms, or the modern and the postmodern) to coexist and to complement each other. Instead of discussing the nature of pragmatism, or the ways it is constructed in current discourse, I investigate how pragmatist and postmodern moves which challenge modern educational structures might provide a theoretical base for revolutionary, emancipatory praxis within such institutions, and how this might relate to my work as a teacher and teacher educator.

I want to understand more, but catalytically, and not alone - as part of a collegial research enterprise into the effect of classroom practice. My thought experiment has been undertaken with the intention of finding a theoretical position for Mea-nui, yet she/he and pragmatism emerge, together, in concert.

²³ Gloss on texts that discuss or promote pragmatism

Toward a tentative classification of readings around pragmatism

This material should not be taken as authoritative. This classification system is designed to promote conversation: it is a first approximation of something which may or may not be considered worth pursuing at a later date. In the mean time it serves to alert the reader to my sources and my understandings at the time this thesis was printed.

1 Texts on pragmatism

Texts which discuss and promote pragmatism *per se* by reconsidering or reprinting its early articulations (Eco, 1990; Ketner, 1992; Ketner & Putnam, 1992; Peirce, 1992; Putnam, 1992) or by focusing on its current relevance and possible applications within theory (Bernstein, 1992; Macke, 1995; Putnam, 1995; Fraser, 1997; Cherryholmes, 1999).

2 Critiques of pragmatism leading to fresh articulations of pragmatic theory

Texts which critique the work of Rorty and others and then promote alternate models (Haber, 1994; Wright, 1995; Granger, 1998; Gutting, 1999; Cruickshank, 2001; maybe Bricmont, 2001). These authors have informed the voices of Ernest and Hélène; they might be referred to as critical theorists - or as realists, or as postmoderns or relativists.

3 Pragmatism used as a theoretical tool

Texts which use pragmatism as a tool within analysis or critique (Fraser 1997; Knight Abowitz, 2000).

4 Pragmatism used as a practical tool within praxis

Texts which use the term pragmatism recursively, as a tool to build emerging understandings of the way pragmatic approaches might influence future praxis (Biesta, 1995; Granger, 1998; Roth, 2000; Colston & O'Brian, 2000; Earl & Katz, 2000). I include here authors who may not mention pragmatism but who carry out very similar analyses (Wright, 1995).

Distinguishing between postmodernism and pragmatism

Pragmatism and postmoderism emerge as closely related approaches. Cherryholmes (1999: 4) suggests that pragmatism may have been ignored in the mid-twentieth century because of the influence of structuralism, a movement which had both descriptive and prescriptive undertakings. "Although structuralist templates for educational practice often seem intuitively attractive," Cherryholmes continues, based on his 1988 text, "they ... deliver less than they promise" (Cherryholmes, 1999: 4). Post-structuralism, in contrast, generates powerful forms of interpretation and criticism, but is not forward looking.

Post-structural and postmodern investigations tend to be investigatory, interpretive, critical and analytic. They are not forward looking. They are oriented to commentary and criticism instead of consequences and action. Post[-]structuralism and its postmodern relatives do not have a project that looks to action, nor do they seek one (Cherryholmes, 1999: 4)

Pragmatism, in contrast to postmodernism, looks toward actions and results. These distinctions, among structuralism, post-structuralism and pragmatism, allow me to clarify the different distinctions I draw among Karl, Hélène, and Mea-nui, remembering that these are no more than voices that act in concert. While Mea-nui is consistently pragmatic, Hélène and Karl do not carry quite such simple relationships with post-structuralism and structuralism, or (as their names suggest) feminism and socialism. To explain this I need to look to similarities. Both structuralism and post-structuralism are scholarly enterprises that are firmly rooted in the social world where social/cultural structures and language/meaning are recognised as being powerful analytic tools: in analysing structure and discourse, respectively, each uses descriptive tools with moral ends in view, each contains a social/ethical dimension. It is this moral, ethical dimension which I call upon when I use the name of Hélène.

Both structuralism and post-structuralism also have political dimensions. Cherryholmes (1999: 4) is right to point out that postmodern/post-structural theory lacks a focus on consequences and action: because these forms of analysis have undermined the logic of principled or pre-planned action, their analysis shows the futility of forward-looking optimism, particularly of any variety that is based on a particular ideological perspective. He would be wrong, however, if he were to suggest (which he does not) that postmodernism lacks political intent (feminism, for example, argues that 'the personal is political', (below: 145) and, Foucault's comment, "My point is not that everything is bad,

but that everything is dangerous" (quoted in Sawicki, 1991: 55), directs our attention to political concerns). When I use the name Karl I call upon the political intent, the solidarity, the collective action and the individual action which is geared toward attaining the moral ends that Hélène seeks.

Hélène and Karl, therefore, are voices which allow me to think about the moral and political advances that have been made possible by post-structural and structural understandings of the social world. Yet they are not the only voices because Ernest is still required to account for understandings of the physical world, and Mea-nui, with her/his pragmatic focus, cuts across all these theoretical understandings and allows me to, cheerfully, call upon whichever voice seems most relevant at the time.

In that pragmatism looks forward, it is built upon all existing knowledge, including understandings which Cherryholmes refers to as multiple arenas.

Tracing consequences can be thought of as the present looking forward. And the present is a construction of past experiments. A history of the present, therefore, is contextually important in imagining outcomes. As individuals, we are who we are because of our location in multiple arenas; some are historical, some are literary, and some are social and political. What we can conceive is simultaneously made available and constrained by such factors. (Cherryholmes, 1999: 109)

The value I see in a pragmatic approach is that it requires us to build democratic solidarity, it requires us to move beyond any universal appeal to some authority outside a particular social setting and to seek ways of fostering and valuing alternative voices: "We increase the risk of making unsatisfactory choices to the extent that "other" conceptions, beliefs, individuals, and groups are excluded and silenced" (Cherryholmes, 1999: 5).

Approaching pragmatism from a variety of directions

I do not attempt to give a complete or comprehensive overview of pragmatic theory, rather I seek to call upon various authors all of whom have some association with the construct and whose writing has seemed, in some way, relevant to the ideas I am exploring. Others have focused their attention on pragmatism itself: for a discussion of American pragmatism, its origins and its relevance, I recommend Bernstein (1992); Cherryholmes' (1999) account, according to the blurb on the dust jacket, turns pragmatism into "a postmodern, critical, feminist tool for analyzing educational practices"; although pragmatism is not indexed in either of my feminist dictionaries (Humm, 1995; Gamble,

2000) the work of Seigfried (below: 123 and 126) and Fraser (below: 125) suggest that this omission could be rectified in future editions.

Truth claims - Seigfried

Seigfried (in Audi, 1995: 638) writes that pragmatism is a "philosophy that stresses the relationship of theory to praxis"; experience is taken to be "the ongoing transaction of an organism with its environment"; "[w]hen intelligently ordered, initial conditions are deliberately transformed according to ends-in-view"; knowledge, because of this intentionality, "is guided by interests or values"; "truth claims can be justified" only in relation to their "experimental determination".

Pragmatism, when described in this way, is broadly compatible with critical, postmodern and complexity theory: it recognises praxis; it recognises organic relationships; it recognises relationships between power and knowledge; and it undermines claims to foundational truth. Other statements, based on Peirce's much quoted words ...

The method described as the [pragmatic] maxim is to trace out in the imagination the conceivable practical consequences - the consequences for deliberate, self-controlled conduct - of the affirmation or denial of the concept; and the assertion of the maxim is that herein lies the *whole* of the purport of the word, the *entire* concept. (Peirce, 1905/1984, p. 494, emphasis in original) (quoted by Cherryholmes, 1999: 6)

... have led to definitions which, although they trace historical origins and are agreed upon (in the sense that they are published in reputable encyclopaedias), are less helpful for my pragmatic purposes. The definition in Jary and Jary (1991), for example, which indicates that truth relates "merely to practical effects" is less helpful in that it does not explicitly locate truth within language games as does Seigfried through her use of "truth claims".

The eclectic nature of pragmatism is apparent already. Mea-nui does not have strategies of her/his own, she/he calls instead upon the tools of multiple disciplines, in this she/he sees pragmatism as an approach-to-praxis rather than a theory in its own right: the statement in Jary and Jary (1991) reminds her of Ernest's approach to scientific hypothesis testing

²⁴ Gloss on pragmatism - Jary and Jary

Pragmatism [is] a philosophical approach which embraces the work of a number of US philosophers, including C.S.Peirce (1839-1914), William James and John Dewey. Its central doctrine is that the meaning, and ultimately the truth, of a concept or proposition relates merely to its practical effects. ... (Jary and Jary, 1991: 517)

where ideas are tested out empirically to check their validity; the statement in Peirce reminds her of Hélène's understandings that concepts are not pre-programmed and meanings have no essential underpinning but emerge as they are used; and Seigfried's more political approach reminds her of Karl's desire for action which might change the world.

Beyond coherence and correspondence, toward consequences - Britannica

I find the description in Britannica (1999) to be helpful in building up a framework of references to pragmatism. *Britannica's Major Theses of Philosophical Pragmatism*²⁵ provides a perspective on the breadth of the pragmatic movement within the first quarter of the twentieth century. Of particular interest to my argument is the clear distancing of pragmatism from both coherence and correspondence theories of truth (point 4). This is particularly relevant because correspondence theories are linked to the realism of Ernest and his colleagues, and coherence theories to those who looked beyond realism toward

²⁵ Gloss on pragmatism - Britannica

Major theses of philosophical pragmatism

During the first quarter of the 20th century, Pragmatism was the most influential philosophy in America, exerting an impact on the study of law, education, political and social theory, art, and religion. Six fundamental theses of this philosophy can be distinguished. It is, however, unlikely that any one thinker would have subscribed to them all; and even on points of agreement, varying interpretations mark the thought and temper of the major Pragmatists. The six theses are:

- 1. Responsive to Idealism and evolutionary theory, Pragmatists have emphasized the "plastic" nature of reality and the practical function of knowledge as an instrument for adapting to reality and controlling it. ...
- 2. Pragmatism is a continuation of critical Empiricism in emphasizing the priority of actual experience over fixed principles and a priori reasoning in critical investigation. ...
- 3. The pragmatic meaning of an idea, belief, or proposition is said to reside in the distinct class of specific experimental or practical consequences that result from the use, application, or entertainment of the notion. ...
- 4. While most philosophers have defined truth in terms of a belief's "coherence" within a pattern of other beliefs or as the "correspondence" between a proposition and an actual state of affairs, Pragmatism has, in contrast, generally held that truth, like meaning is to be found in the process of verification. ...
- 5. In keeping with their understanding of meaning and truth, Pragmatists have interpreted ideas as instruments and plans of action. ...
- 6. In methodology, Pragmatism is a broad philosophical attitude toward the formation of concepts, hypotheses, and theories and their justification. . . . (Britannica, 1999)

more interpretive research methodologies. The notion that pragmatic theories might look, instead, toward consequences for verification provides a fresh perspective.

Yet this is troublesome. This fresh perspective from early in the twentieth century came at a time when the experimental scientific method was evolving and gaining status. Dewey (1938: 86-88) actively supported an experimental (hypothesis-testing) approach to fostering learning during this era. The experimental method is, itself, intensely pragmaticit sets out to predict the consequences of various experimental interventions. During the 1980s there has been a broadening in scope in the resurgence in pragmatism where the connections with the philosophic visions of the early pragmatists became more pronounced (Bernstein 1992: 828). This is largely due to the work of American theorists, such as Putnam, Rorty, and others (see, for example, those discussed by Bernstein (1992) and Cherryholmes (1999)). Much of this work relates to questions raised by Wittgenstein about the inability of philosophy to assess the validity of empirical knowledge, and in challenging assumptions about the ways in which meaning is constructed. I discuss some relevant aspects of pragmatism in the next section.

The "pragmatics view" studies language as a social practice - Fraser

Fraser (1997) devotes a chapter to the choice: Structuralism or Pragmatics?

Unlike the structuralist approach, the pragmatics view studies language as a social practice in social context. This model takes discourses, not structures, as its object. Discourses are historically specific, socially situated, signifying practices. They are the communicative frames in which speakers interact by exchanging speech acts. Yet discourses are themselves set within social institutions and action contexts. Thus the concept of a discourse links the study of language to the study of society. (Fraser, 1997: 160)

By contrasting structuralism with pragmatics, Fraser introduces the notion that pragmatics focuses its attention on discourse yet she locates discourse within existing social institutions and the contexts of action: she thereby links language with society and relates the post-structural notion of discourse to structural conceptions of social organisation. A "pragmatics view" therefore supplements an *either/or* choice between structural and post-structural theory with the possibility of investigations that include both, i.e., it allows a *both/and* understanding of the complexity of social practices.

The pragmatics approach has many of the features one needs in order to understand the complexity of social identities, the formation of social groups, the securing and contesting of cultural hegemony, and the possibility and actuality of political practice. (Fraser, 1997: 161)

While this is different from my use of pragmatics as a contrast with realism, Fraser's construction of pragmatics as a way of linking a focus on discourse with a focus on structure has a similar political intent: to attack cultural hegemony, and to explore the possibility and actuality of political practice. She identifies (by calling on the work of Kristeva and Butler) an amalgam which:

cannot lead beyond structuralism to pragmatics. ... Moreover, this amalgam is, to use Hegel's phrase, a "bad infinity" that leaves us oscillating ceaselessly between a structuralist moment and an antistructuralist moment without ever getting to anything else. (Ibid: 163)

While I recognise the need to move beyond ceaseless oscillation about the distinction between structuralism and a successor regime or an oppositional paradigm (if such a things could exist), I question this craving to move forward to somewhere else if that craving implies that structuralism is jettisoned in favour of some other notion. The sleight of hand that is needed, it seems to me, is to find a way for different perspectives to coexist. I seek a *good infinity* (whatever that might mean, but it connotes for me terms like *unachievable equilibrium*, and the *never ending loop* illustrated in exhibit 1.6.2 (above: 81) where oscillation between perspectives informs action.

Seigfried: On the decline of pragmatism, and its current attraction

The range of interests listed in the following quotation from Seigfried (1997) adds further insight into why pragmatism might be surfacing again at this time. She writes that pragmatism, and especially Deweyan pragmatism ...

was criticised and eventually relegated to the margins for holding the very positions that today feminists would find to be its greatest strengths. These include early and persistent criticisms of positivist interpretations of scientific methodology; disclosure of the value dimension of factual claims; reclaiming aesthetics as informing everyday experience; linking of dominant discourses with domination; subordinating logical analysis to social, cultural and political issues; realigning theory with *praxis*; and resisting the turn to epistemology and instead emphasising concrete experience. (Seigfried, 1991: 5, quoted in Garrison, 1997: 31, italics added)

Gutting - Pragmatic liberalism

In my classification of readings about pragmatism (footnote 23, above: 119), I have noted that Gutting (1999) is a theorist who promotes an alternate model of pragmatism. I quote from him purely to illustrate the position he argues.

Pragmatic liberalism is an ethical and metaphilosophical view that needs to be distinguished from liberalism as a position in political theory. The commitment to human freedom is, of course, shared with political liberalism, but pragmatic liberalism as such takes no position on political issues of just how freedom is to be understood and what are the best means to achieve it. (Gutting 1999: 6)

Pragmatism, then, is emerging within the kind of writing that attracts me as a teacher because of its focus on future possibilities: all theory is relevant insofar as it provides understandings of the possible consequences of action. Pragmatism is broadly compatible with postmodern, critical and complexity theories; it has maintained a distance from coherence and correspondence theories and positivist interpretations of scientific theory, yet it recognises the instrumental value of scientific knowledge in context; the lack of a focus on any particular form of idealism places responsibility on all. Yet it is no solution. The critique, that pragmatism is a conciliatory philosophical instrument of the middle classes, (Novack, 1975: 278) continues to resonate.

Section 3.2 Irony? Wittgenstein, the pragmatists, and the claims that can (or cannot) be made by philosophy

Wittgenstein

Pragmatism is a troublesome word which does not do exactly what I want which is to support multiple perspectives in ongoing conversations: it does not, in its historical guise speak for Mea-nui (nor attract her/him directly). I looked more broadly across the philosophical landscape in the hope of finding other voices which might support my cause; I wanted to find theory that interested me as a practitioner who is critical of some current practices within teaching and teacher education; I sought ways to overcome the barriers I perceive as existing between teachers and educational research. Wittgenstein appeared. I was instantly attracted to his original writings, but turned to his commentators to find

words that might pull together the ideas that he was expressing into ways that I could speak about.

Wittgenstein's main contributions lie in five areas: philosophy of language, philosophy of logic and mathematics, philosophical psychology, epistemology, and philosophical methodology. (Glock, 1996: 28)

Finding Wittgenstein's work has been a highlight of my investigations towards this thesis. I found his original work to be refreshing in its structure and in accord with the ideas I was struggling to articulate. He raises questions which invite readers to consider their own understanding, knowledge and interpretation of the real world. His questions and his discussions build upon the commonsense of his reader, and yet challenge the assumptions that underpin that commonsense. He does not attempt to persuade the reader of the truth of his philosophical arguments, rather he brings to light fundamental and novel challenges to the presuppositions of traditional philosophy: Wittgenstein challenges the notion that philosophy can ever be the arbiter of truth.

... we may not advance any kind of theory. There must not be anything hypothetical in our considerations. We must do away with all explanation, description alone must take its place. The problems are solved, not by giving new information, but by rearranging what we have always known (Wittgenstein, 1953: §109].

Shotter and Katz (1996) describe Wittgenstein's view that the strategy of persuading others of the truth of our claims is exactly what is wrong with classical research:

it is the very insistence on the classical search for an already existing order hidden behind or beyond appearances, and our belief that we ought to *convince* others of the *truth* of our claims by systematic argument, that deflects or precludes us coming to a grasp of what is utterly unique and novel in the moment by moment emergence of appearances (our voicings) as they unfold before our very eyes (or, better, in our ears). (Shotter and Katz, 1996: $\neg 7/11^{26}$).

Wittgenstein's writing promotes conversation over argument, and also recognises the importance of the moment by moment emergence of appearances. I recognise this importance when I claim that no amount of theoretical preparation or understanding of

²⁶ Gloss on non-standard notion

The text quoted has been downloaded from the Internet, and lacks the original pagination. The symbol $\neg 7/11$ indicates that the quotation occurs on page 7 of my printout which is 11 pages long. This suggests that it will occur at a corresponding position, approximately 7/11 of the way through the original text 25 page text: around the end of p. 228.

research literature can ever *predict* ²⁷ what a teacher might see or hear in a classroom. Wittgenstein's work resonated with me because it did not clash with any of the subjectivities from chapter 2 (Ernest, Hélène, or Karl) and, further, it gave me the confidence to look for a new epistemology which did not rely on finding truths about the world as we experience it, and it also gave me (re)fresh(ing) insights into pedagogy.

But do you really explain to the other person what you yourself understand? Don't you get him to guess the essential thing. You give him examples, - but he has to guess their drift, to guess your intention. (Wittgenstein 1953: 83-84e, §210)

I found his arguments concerning the different functions of science and language useful. For example, Wittgenstein, according to Glock (1996):

rejects not science but scientism, the imperialist tendencies of scientific thinking which result from the idea that science is the measure of all things. Wittgenstein insists that philosophy cannot adopt the tasks and methods of science. (Glock, 1996: 341)

Further, his analysis does not support "anything goes" relativism (see Glock, below). Our socially constructed senses of what is true and what constitutes reality are not independent of the physical world as we perceive it.

The autonomy of language does not amount to an 'anything goes' relativism. Grammar is not arbitrary in the sense of being irrelevant, discretionary, easily alterable or a matter of individual choice. Language is embedded in a form of life, and hence is subject to the same restrictions as human activities in general. The idea of autonomy of grammar is provocative. Yet its ultimate rationale is a grammatical reminder: we call propositions true or false, but not concepts, rules or explanations. A unit or measurement is not incorrect in the way that a statement of length is. Grammatical rules can be correct in the sense of conforming to an established practice, or even serving certain purposes. But Wittgenstein has made a powerful case against any idea that they have to mirror a putative essence of reality. (Ibid: 50)

On Certainty (published posthumously in 1969) contained Wittgenstein's argument that language games can only be played out against a background of relatively permanent

²⁷ Gloss on predict, and positivist science

I use *predict* in the sense that flows from material science where causality and prediction meet. If A causes B under particular circumstances, C, then it is possible to predict that B is a consequence of A whenever C. Where this logic has been carried over to the social sciences, there is tendency to try to describe teaching and learning in ways that will predict the consequences of particular teaching practices.

Within neo-pragmatism, I therefore argue, the purpose of educational research is to inform or alert people about possible consequences, not *predict* actual situations.

certainty, that the certainty of a belief consists of its role within our framework of beliefs, and that a belief is certain if it can be appealed to in order to justify other beliefs, but does not itself stand in need of justification (Glock, 1996: 80).

Language games, such as those of science, philosophy, relativism, and pragmatism, are played out in overlapping linguistic domains. My choice, which is to play these games from the perspective of a teacher and teacher educator rather than as a philosopher, means that I must constantly seek to make sense of the theory I read in the light of my own praxis.

Pragmatism in the late twentieth century

Rorty points out, in *Penguin Dictionary of Philosophy* (Mautner, 1997), that analogies have been drawn between the anti-foundationalist, anti-essentialist contextualist tenor of James' and Dewey's philosophy and similar motifs in the later writings of Wittgenstein. He adds that "contemporary American philosophers including W. V. O. Quine, Donald Davidson, Hilary Putnam, Richard Rorty, and others" (Rorty, in Mautner, 1997: 441) have defended pragmatic theses. I discuss some of this work in the next few pages in order to expand on my argument that pragmatism provides a valid theoretical base for my investigation into praxis.

When Rorty (1995) contrasts the ironic and the metaphysical philosopher, he is echoing his own earlier work (Rorty, 1979) which, in turn, builds upon Wittgenstein's distinction between those things that philosophy can claim (things related to language games) and those things it cannot (things related to metaphysics). Rorty introduces the notion of a *final vocabulary*:

All human beings carry about a set of words which they employ to justify their actions, their beliefs, and their lives. These are the words in which we formulate praise of our friends and contempt of our enemies, our long-term projects, our deepest self-doubts and our highest hopes. They are the words that tell, sometimes prospectively and sometimes retrospectively, the story of our lives. I shall call these words a person's "final vocabulary." (Rorty, 1995: 96)

Rorty uses this notion to describe the ironic philosopher, or *ironist* (above: 106) as part of his central challenge to the underpinning, realist assumptions of metaphysical philosophy, and to support his consequential argument that new vocabularies are needed if new understandings are to be reached. *New vocabulary* is played off against the old in language

games (Wittgenstein, above: 129) and in the discursive spheres that mark postmodernity (Schrag, 1997).

Ironists who are inclined to philosophise see the choice between vocabularies as made neither within a neutral and universal metavocabulary, nor by an attempt to fight one's way past appearance to the real, but simply by playing the new off against the old. (ibid: 97)

Glock (2001) links Rorty with Wittgenstein and the pragmatists, postmodernism and irrationalism, and introduces another notion which has been central to my emerging understanding of these ways of thinking about knowledge.

Postmodern irrationalism: A position inaugurated by Rorty (1979), according to which Wittgenstein, along with Heidegger and the pragmatists, paves the way for an "edifying philosophy" in which the traditional concern with truth and objectivity is *abandoned* in favour of the hermeneutic attempt to *keep the conversation going*. More specifically, [postmodern irrationalists argue that] Wittgenstein supports Dewey's and Quine's attack on the idea that philosophy is a subject distinct from the empirical sciences. (Glock, 2001: 196, italics added)

Keeping the conversation going

The notion of keeping the conversation going, as opposed to arguing for the truth of one's own position, is immensely attractive to me as a teacher who is seeking to understand ways of working within a multicultural classroom. In such a place, we are no longer training all children into taking their place within a pre-established social order; in fact, through our teaching we are aiming to create an increasing understanding of and respect for difference. We are aiming to teach the children attitudes and values which are not necessarily held by their parents: the attitudes and values that we are trying to teach are emerging as we teach and through our teaching. A philosophy that aims to keep the conversation going will support these interests more closely than will one which asks me to persuade others of the correctness of my personal position.

Pragmatism and social openness

Pragmatism, in recent incarnations, focuses on community, pluralism, and social openness.

Pragmatism requires democracy. ... Social openness, inclusiveness, tolerance, and experimentation generate more outcomes than closed, exclusive, and intolerant deliberations. (Cherryholmes, 1999: 39)

Pragmatism naturalised the transcendental search for eternal truths about reality by reflecting on the various ways that members of a community come to agree ... (Seigfried, 1993: p. 2, quoted in Cherryholmes, 1999: 39)

Putnam (1995) addresses the moral purpose of Wittgenstein's work:

I detect a moral as well as a philosophical purpose in Wittgenstein's writing. Wittgenstein is urging a certain kind of empathetic understanding. ... Wittgenstein thinks that secular Europeans see all other forms of life as "pre-scientific" or "unscientific" and that this is a vulgar refusal to appreciate difference. ... (On this interpretation, Wittgenstein's rejection of metaphysics is a moral rejection: metaphysical pictures are bad for us, in Wittgenstein's view.) The question, the one we are faced with over and over again, is whether a form of life has practical or spiritual value. But the value of a form of life is not, in general, something one can express in the language games of those who are unable to share its evaluative interests. (Putnam, 1995: 50-51, italics added)

This perspective is in accord with comments that I hear about my own sense of mission: I cannot relate to a form of postmodernism marked by pessimism in relation to human agency; what I have learned through my reading of postmodern analyses does not challenge agency, it simply locates agency very clearly within the current moment (context and physical reality) and within pre-existing yet constantly changing personal identities, social structures, and language games; I play with the notion that what is missing from current policy-making within education is an understanding of the ways in which people in networks and groups construct meanings, personally, socially and structurally. My sense of mission claims a moral impulse, a sense of hope, an optimism about agency, and a faith in the capacity of individuals, collectively, to value pluralism and to make a difference through their social interactions.

The moral purpose Putnam detects in Wittgenstein's work suggests a fundamental criticism of the views of "secular Europeans." I shall return to this point in the discussion about the work of Latour (2002) below where the self-confidence of Western imperialism is further challenged.

Putnam's final sentence, above, opens up other considerations important to this thesis. I take that sentence to mean: to the extent that I can understand a culture, and the way it makes evaluative judgements, then I am able to take part in these evaluations. As an outsider I am not able to evaluate a culture, or any form of life that relates to that culture: because I am not party to the relevant language games, I cannot share the evaluative

interests of the insiders. Within this model, the Other cannot act as judge of the Inner because the Other does not understand the relevant language games. The implications, taken to the extreme, of this statement are massive, and should not be dismissed lightly. On the personal level, it implies that I can criticise myself and the practices I am immersed in, but that I do not have the language (or subjectivities in this case) to critique or advise others. On the level of a group of associates, it implies that internal criticism and debate is valid while critique of those who subscribe to different beliefs is not. This represents a radical renaming of 'expertise' as being defined by a network or community: such expertise is specific to the network or community which judges that characteristics it chooses to name as expert.

There are issues of power and exclusivity here. Putnam's statement represents an undermining of scientism and arguably, the elevation of relativism. But science itself is not undermined any more than any other theoretical framework, and it continues to apply within its appropriate fields. What might be contested, and rightly so, is the ethical question of how much influence it should have, when, and within which fields. Nor is relativism elevated beyond the bounds of linguistic practices. Wittgenstein's metaphorical imagery helps here too: he refers to the foundations of our language games as hinges on which our questions and doubts turn (Glock 1996: 78). No matter what aspects of our language and understandings are in dispute, our language games are always premised upon other vocabularies that are currently accepted as being stable, anchored, like hinges otherwise communication would not be possible. Yet no aspect of any language is immutable: in another conversation, those things that were previously static may be challenged and become dynamic; no-one's "final vocabulary" (Rorty 1995) is a universal vocabulary. The distinction is that some vocabularies, such as those of the physical sciences, are more widely shared by larger and more diverse networks than are other less influential and more contested vocabularies.

Putnam's observations about moral aspects of Wittgenstein's work (above) are followed immediately by a clarification of its relationship to pragmatism, and to the role of philosophy as described by Dewey:

This [the paragraph above] sounds like pragmatism. But it is not the mythical pragmatism (that real pragmatists all scorned) which says "It's true (for you) if it is good for you". It is much closer to the attitude that Dewey expressed when he wrote:

[Philosophy's] primary concern is to clarify, quote, liberate, and extend the goods which inhere in the naturally generated functions of experience. It has no call to create a world of "reality" de novo, nor to delve into secrets of Being hidden from common sense and science. It has no stock of information or body of knowledge peculiarly its own; if it does not always become ridiculous when it sets itself up as a rival to science, it is only because a particular philosopher happens to be also, as a human being, a prophetic man [or woman] of science. Its business is to accept and to utilise for a purpose the best available knowledge of its own time and place. And this purpose is criticism of beliefs, institutions, customs, policies, with respect to their bearing upon good. This does not mean bearing upon the good, as something itself formulated and attained within philosophy. For as philosophy has no private store of knowledge of or methods for attaining the truth, so it has no private access to good. As it accepts knowledge of facts and principles from those competent in science and inquiry, it accepts the goods that are diffused in human experience. It has no Mosaic or Pauline authority of revelation entrusted to it. But it has the authority of intelligence, of criticism of these common and natural goods ... (Putnam, 1995: 51, quoting from Dewey (1926) Experience and Nature, italics added to sentence beginning *Its business* ...)

Glock (1996) identifies at least two other accords between Wittgenstein's work and pragmatism:

On Certainty's most important achievement was to provide the cue for an epistemology socialised ... Neither the knowledge of a culture, nor even that of any of its members, can be derived from the perceptual experiences of an individual. The accumulated knowledge of a culture is a collective achievement – an idea shared by Hegelians, Marxists and pragmatists. (Glock, 1996: 81)

And in a discussion of forms of life:

Wittgenstein (like Marxism and pragmatism) stresses not our inflexible biological outfit, but our historical practice. (Glock, 1996: 126)

The emphasis on historical practice is also, of course, the focus of postmodern and poststructural theorists, especially Braudel (named by Lechte (1994: 91) as "probably the first truly postmodern historian") and Foucault:

[I]nstead of attempting to distinguish ... between degrees of reality, the aim now [in Braudel's work], as with Foucault's history, is to 'understanding how patterns of practice and series of discourses are articulated'. (Lechte, 1994: 89-90)

As I am drawn more deeply into considering the relative positions of various theories and theorists, I note that the resemblance among Wittgenstein, pragmatism, Marxism, and postmodern/poststructural theorists is similar to *family resemblances*.

An interruption: Lost in a Good Thesis

"Stop - enough," I say to myself "The purpose of this writing is not to join the ranks of philosophers and engage in debate. The purpose is to identify the existence and breadth of this theoretical domain where a focus on Truth is secondary to a focus on the consequences of action. Save the family resemblances stuff for later - put it in chapter 4."

To immerse myself in more debate would be to lose focus on my purpose. I have found Eco's writing, for example, fascinating and challenging, and because it is not well known I want to talk about it and why I see it as important - but my reason for not proceeding is one of advocacy. My purpose is to move debate out of the domain of individual writing and into the lived domain of teacher practice. The reader who wants to know my position on a particular issue will be disappointed because many aspects of my position are fluid: most of my beliefs are true only in certain ways and in certain circumstances. This is intelligence: the ability to respond sensibly, wisely, adaptively, effectively, depending on the circumstances. Intelligence stands in opposition to principled action which is formulaic, static and Yet principled actions are the "hinges" (Wittgenstein, 1969) of intelligent common sense: those actions and beliefs that are not currently challenged are stable; they form the structures, or hinges, upon which intelligent action depends, or swings. For example, the principle of protection of human life is commonly paramount, a hinge, a principle to rely on, but not in all cases: think of severe illness, warfare, abortion, suicide, terror. When a principle is questioned, it moves from being a hinge: it becomes a social issue that requires emancipatory discussion.

I support the idea that important issues, those currently troublesome within the social domain, ought to be widely and purposively discussed and I seek to open up these discussions in ways that foster creative rather than oppositional debate. I want, as stated above, to move the argument out of the domain of individual writing

yet I do not oppose theoretical writing. I have a certain sympathy for Serres (1995) position when he argues:

What makes for advancement in philosophy, and also in science, is inventing concepts, and this invention always takes place in solitude, independence, and freedom - indeed, in silence. We have a surfeit of colloquia these days, and what comes out of them? Collective repetitions. ...

Debate brings pressure to bear, which always tends to confirm accepted ideas ...

Discussion conserves; invention requires rapid intuition and being as light as weightlessness. (Serres, 1995: 37)

I have experienced the joy of solo creativity, yet the contrast that is being drawn here closes off other forms of creativity where ideas are enhanced by the enthusiasm of others so that theory evolves socially, in community; and it ignores the social nature of the data, the experiences, above which creativity floats. Serres is able to create, to theorise, to comment about advancement in philosophy only on the basis of his material experiences of debate and discussion. I share with Serres an impatience and boredom with debates that tend to confirm accepted ideas, yet these same discussions and others, more focused on problem-solving and creativity, are at the heart of social change.

The call of praxis is a call to perform, within my place of work, within teacher education, in ways that resonate with the theory that I am selecting. It is the call of performativity (Lyotard, 1984) which is immersed within the systems and structures of power.

This is how the legitimation of power takes shape. Power is not only good performativity, but also effective verification and good verdicts. It legitimates science and law on the basis of their efficiency, and legitimates this efficiency on the basis of science and law. It is self-legitimating in the same way that a system organised around performance maximisation seems to be. ...

... Research sectors that are unable to argue that they contribute even indirectly to the optimisation of the system's performance are abandoned by the flow of capital and doomed to senescence. The criterion of performance is explicitly invoked by the authorities to justify their refusal to subsidise certain research centres. (Lyotard, 1984: 47)

It is ironic that my desire to find emancipatory ways to involve teachers and students in knowledge creation is, under this model, a contribution to the continuing legitimation of a system that disenfranchises.

Am I lost in a good thesis? No. The ideas that I am floating are, although complex, simply designed to (1) confront the myths created by positivist forms of science which set out to identify definitive knowledge of the kind that I have already rejected in chapter 1, i.e. that legitimated on the basis of science and/or philosophy, and (2) to show that there is a substantial body of theory which supports an alternative position, that knowledge is legitimated on the basis of linguistic practices and communal interaction. In Lyotard's words:

Wittgenstein's strength is that he did not opt for the positivism that was being developed by the Vienna Circle, but outlined in his investigation of language games a kind of legitimation not based on performativity. This is what the postmodern world is all about. Most people have lost the nostalgia for the lost narrative [of legitimation through science and/or philosophy]. It in no way follows that they are reduced to barbarity. What saves them from it is their knowledge that *legitimation can only spring from their own linguistic practice and communicational interaction*. Science "smiling into its beard" at every other belief has taught them the harsh austerity of realism. (Lyotard, 1984: 41, italics added)

I carry forward the notion that legitimation can spring only from linguistic practice and communicational interaction, which is to say, from language games. Further, the legitimacy of language games is no longer controlled (if it ever was) within the academy. When we abandon the canons of validity in the social sciences, the consequences, the alternatives, the new ethics need to be established, unless we want to live within the ethics of capitalist consumerism. The following statement, made by a Research Director, indicates a form of the commercial reality which current rhetoric and practice allows:

'We don't want to prove whether our research is right or wrong. If the stuff doesn't work for our clients then that is the bottom line for us.' (Observer, 12 September 1994, quoted in Stronach & MacLure, 1997: 16)

As Stronach and Maclure indicate, this is an echo of the views of Lyotard in relation to performativity:

Performativity implies the replacement of foundational criteria of *validity* with notions of political acceptability as part of the 'mercantilisation of knowledge'. (Ibid: 114, italics added)

This thesis becomes, therefore, an effort to name (to construct) a shift of meaning from a privileging position where knowledge is seen to be generated in the academy and applied in practice, to a more emancipatory position where knowledge is seen to be emerging in practice, in praxis. I seek to name the shift, and I seek to name the destination. Hélène and Karl are comfortable with this position: for Hélène, theory and practice cannot be separated, and for Karl, they are linked through praxis. Perhaps it is only Ernest of all my voices who argues that theory can be applied in practice, but his voice is strong: it, along with its realist roots is embedded in the rhetoric of the research establishment in Aotearoa New Zealand. The shift moves away from this realist ontology where models are designed at a distance from praxis, it moves toward a pragmatic understanding of the construction of knowledge.

I shall return to my normal voice to summarise this section, and to link it to the Prism of Praxis (exhibit 2.3.1: 110).

Within this section I have shown that I am, at times, an Ironist in the sense that Rorty (1995: 97) describes. This postmodern, ironic positioning does not, however, fully describe the philosophical orientations that guide my actions. Just as Ernest, Hélène, and Karl act as voices who jostle for intellectual space within my theoretical arguments, so Irony, Strategy, and Commonsense jostle for attention in guiding my actions. Irony is linked to the discussion in this section in the same way as Strategy is linked to the next section, and Commonsense to the section after that. Without Strategy, Irony and Commonsense are politically idle: they play games with each other, in some theoretical high ground that is separated from praxis. It is Strategy that gives a political voice to praxis: in the next section I focus more on collective praxis and how it might represent strategic collective activity; I move beyond discussion about the divisions between modernism and postmodern.

Section 3.3 Strategy: Schrag, on praxis after postmodernity

Schrag (1997) argues that he is writing "after postmodernity," which I take to mean that he is looking back at an entity which is in the past (or, perhaps he is writing pragmatically and is envisaging a future where postmodernism will be in the past). Either way, I find it (similar but) more helpful to think of *transcending* (below: 143) the dominance of postmodernism and modernism and the debates between them. Either way, Schrag's arguments provide important insights into ways of bypassing these debates: his discussion of the self "after postmodernity" provides four lenses or perspectives on the notion of self, which recognise linguistic and social worlds as well as the material world.

Schrag recognises that postmodernity has led to the deconstruction of traditional metaphysics and epistemology and the senses of self that have been articulated within those domains (Schrag 1997: 9). He argues that jettisoning these senses of self does not entail a jettisoning of every sense of self. His discussion of a new, praxis-oriented understanding of self is located in opposition to postmodernism as he defines it:

Insofar as the function of reason was defined in the thought of both the ancients and the moderns as a drive toward the totalization and unification of human experience, the stance of postmodernity becomes that of *other than reason*. (Schrag 1997: 8, italics in original)

Had Schrag defined postmodernism differently then he could have located his argument within its bounds. By asserting that the modernist vocabularies of unity, totality, identity, sameness and consensus find little employment in the vocabulary of postmodernism (ibid: 7) and that heterogeneity, multiplicity, diversity, difference, incommensurability, and *dissensus* become the chief categories of the postmodern mind (ibid: 8) he sets modernism and postmodernism in opposition to each other. Insofar as modernism represents reason, then postmodernism stands in opposition to reason. Whether Schrag's work is located as postmodern because it looks back at and is built upon the arguments of both modernity and its critics (which it does), or whether it stands beyond postmodernism, as Schrag claims, are not significant questions for this thesis. These debates relate to creating meaning around the term postmodernism. As a constrained practitioner, I have more important matters to deal with, but I am not only a practitioner: my interest as a thesis writer is in creating and adopting a philosophical vocabulary with more relevance to my work as a teacher: I seek a vocabulary of praxis, no, more than that, I seek a fresh *discourse of*

praxis, that might be more readily used by educators immersed in the day-to-day work of teaching and educational management²⁸.

I seek a *discourse of praxis* which will engage educational policy-shapers, including teachers, in debates which (rather than ignore, or bypass, or become immersed in, see below: 143) postmodern theory in order to focus on the real-world problems of real people and groups of people: this is the emerging discourse which might address issues such as how teachers and communities might redress the endemic underachievement of, and lack of opportunity for, the children of the poor in Aotearoa New Zealand. I seek a discourse which keeps conversations going across various forms of difference; I seek a discourse of praxis and pluralism.

Praxis and pluralism

Within praxis:

[b]oth the project of pure theory which makes claims for a value-neutral standpoint, and the purely instrumentalist understanding of practice, as itself shorn of discernment and insight, are jettisoned. (Schrag, on praxis, in Audi 1995: 639)

Praxis is a contested term; I have chosen it because it carries with it the idea of some emancipatory ideal connected to social justice. It carries both action and word: in Freire's terms it is not *activism*, and it is not *verbalism* (Freire, 1972: 60). It connotes an ongoing responsiveness to the current situation rather than to some idealised version of reality. It also connotes revolutionary action attacking the forces that militate against emancipation. Within the terms of this thesis it connotes a quiet revolution that has been taking place for

²⁸ Gloss on educational management

I hesitate to use the word leadership because of the implication therefore that teachers are, therefore not leaders, rather they are led by others: my concern is that teachers be constructed as educational leaders rather than as those who merely conform to and implement (wise, benevolent, caring) requirements and bureaucratic decisions of others.

Educational managers are, in this context, all those workers in administration, policy development, educational review, research, and school management, leadership and governance who have responsibility for supporting the work of individual teachers, and teachers collectively. Educational managers as a group have a significant part to play in the reconstruction of the teacher as an educational leader within society, but this is something that is difficult to conceptualise for those who have access only to pre-postmodern understandings of self, reality, knowledge and power.

This point is too important to remain in a footnote: this footnote will talk to the text (inspired by Stronach and Maclure, 1997: 154-167): such interactions have become embedded, as a sub-text, in my ongoing conversations.

a long time within education. I argue that the pedagogical revolution begun by Dewey and his contemporaries is alive and well as is demonstrated within the liberal discourses of constructivism and reflective practice. Praxis is more than these discourses. Praxis rekindles the fire of revolution that was part of Dewey's original agenda, but which has been submerged within an essentialist ideology that reifies individual freedom and makes the autonomy of the individual a goal in its own right. Praxis, in the writings of Aristotle, refers to "the sphere of thought and action that comprises the theoretical and political life of man" (Schrag on praxis, in Audi 1995: 638). Praxis has close links with Marxist and pragmatist philosophies, as Audi summarises:

Marx and the neo-Marxists linked the concept with a production paradigm in the interests of historical explanation. Within such a scheme of things the activities constituting the relation of production and exchange are seen as the dominant features of the socio-economic history of humankind. Significations of 'praxis' are also discernible in the root meaning of *pragma* (deed, affair), which informed the development of American pragmatism. In more recent times the notion of praxis has played a prominent role in the formation of the school of critical theory in which the performatives of praxis are seen to be more directly associated with the entwined phenomena of discourse, communication, and social practices. (Schrag, on pragmatism, in Audi 1995: 639)

This link between Marx and pragmatism, combined with the more recent links to discourse, communication, and social practice, makes *praxis* a key word within this thesis. Praxis fosters emancipation in that it focuses our attention on everyday practices as they emerge within our thinking and our action. It does not exclude our various heritages, it does not restrict particular practices, but invites us all to be part of ongoing, contested conversations.

In his discussion of the recent resurgence of *pluralism* within philosophical thought, Schrag (Audi 1995: 624-5) notes links with American pragmatism through the work of James (1909), Wittgenstein and the plurality of language games, and the philosophical postmodernism of Lyotard (1984):

Here ... alleged unities and totalities of thought, discourse, and action are subverted in the interests of reclaiming the diversified and heterogeneous world of human experience.

Pluralism in contemporary thought initiates a move into a postmetaphysical age. It is less concerned with traditional metaphysical and epistemological issues, seeking answers to questions about the nature and kinds of substances and attributes; and it is more attuned to the

diversity of social practices and multiple roles of language, discourse, and narrative in the panoply of human affairs. (Ibid: 625)

Pluralism is, therefore, yet another word in the "half-formed new vocabulary" of this "interesting philosophy" (Rorty, 1989, above: 45) that I am investigating.

I seek to strengthen an emerging discourse of educational praxis by finding ways to make sense, simultaneously, of various threads and strands of knowledge: my writing focuses on the strategies we might use, collectively, in order to talk across differences and build on them. As I write, I seek, constantly, to avoid identifying one thread as preferable to any other because it is only in context that one theory can be deemed more relevant than another (within the real, perceived world where we need to make decisions and take action in the constrained pragmatic sense): at those times theory from any apparently unrelated field of knowledge may provide a creative insight. Similarly, I argue, within the field of education, there is a need to move beyond ideological positions (such as those of Ernest, Hélène, or Karl, that favour one world view over another in some universal way), to a pragmatic perspective, Mea-nui's perspective, which constantly sets out to undermine any such presumption, and, simultaneously to open up creative fresh possibilities for knowledge and understanding.

Schrag's opposition to modernism is based on the argument that interpreters of modernism, from Weber to Habermas define modernity as the "differentiation of culture into the spheres of science, morality, and art" (Schrag, 1997: 6). The postmodernists, Schrag argues, agree that the differentiations are contrived rather than real but, unlike him, they do not see a need to unify the culture spheres (ibid: 7). The postmodernists spurn the grammars of unity, totality, identity, sameness and consensus: Lyotard, for example, according to Schrag,

makes this quite clear when he announces in his postmodern manifesto that "consensus does violence to the heterogeneity of language games" and that we need to "tolerate the incommensurable," "wage war on totality," and "activate the differences." (Schrag, 1997: 7-8)

This is unfair. Schrag does violence to Lyotard's words. He plays games. He quotes out of context. This reminds me that philosophy is a form of game-playing: Lyotard, following Wittgenstein taught us that.*²⁹

The purpose of Schrag's particular game is to advance his argument that we need to move beyond a focus on postmodernity toward understandings of the self as praxisoriented, defined not only through (a) discourse but also through (b) action, (c) being with others, and (d) transcendence.³⁰

These are complex issues that challenge strongly-held assumptions from within respected, existing academic fields. My goal is, simply, to report that these kinds of questions are arising and to open up ongoing conversations about these issues. My strategic voice suggests we need to consider these issues collaboratively rather than individually, and to be purposeful in bringing understandings of some of the practical implications of post-realist philosophy into the ordinary discourse of practising teachers.

²⁹ After-word one: on after-words, and on academic debates

After-words are reflections written at the time of submission of this thesis. During these final days two main tasks have emerged for me: noting (and not including) the rash of insights into ways that this work might impact on my future praxis, and the more routine task of tidying up those inevitable little details, the lost reference, checking the consistency of formatting, proof-reading, and making final decisions about what to leave out and which arguments need a little more strengthening.

I refuse to make these endings totally opaque: this is not a sloppy thesis, I have proven that in the detail I have written, over and over again, yet it opens up many places where I have not completed or sustained my argument. These openings are invitations to future conversations, I want to make just a few of them very obvious, and I do this in "after-words".

I have deleted my justification of the argument that Schrag does violence to Lyotard's argument because the detail is not important: I am not entering the debate; I recognise the debate as an example of an academic game played between two scholars whose work I respect; it hones their skills, it informs those who listen (it informed me), but their game is not my game because my praxis is in teacher education.

30 After-word: Gloss on transcendence

I use the word *transcend* in this thesis to indicate an intention to move beyond a particular way of thinking, but without any desire to reject or condemn or undermine the ideas that have been developed within that way of thinking. I blame dialectic and analytic forms of argument (where positions compete to be correct, the best or the winning position) for failing to allow us to celebrate multiple understandings: in these forms we fear that other ways of viewing phenomena are challenges to our hard won understandings. There has been a tendency for readers of this thesis to see my call for *transcendence* as a rejection of a set of beliefs (postmodern beliefs, for example) that they hold dear. This thesis argues, at its heart, the need to celebrate past insights, to continue to glory in them, and simultaneously, to move on and look for other ways of knowing. Under this construction, those who call themselves researchers, academics or theorists seek to *transcend* current understandings. (See also, below: 215)

Schrag defines transcendence as a threefold function with a principle of protest against cultural hegemony, a condition for transversal unification that effects convergence without consistence (which I take to mean a form of togetherness, without assimilation, which respects difference), and with a power of giving without expecting return: this, Schrag (1997: 148) suggests, stands outside the economics of science, morality, art and religion: it transcends.

Section 3.4 Common sense: Latour, Serres, and the emergence of knowledge

Because pragmatists are interested in consequences and not in discovering Truth once and for all time, it follows that *they cannot be sceptical* when final Truths about the world are not forthcoming. Scepticism is dependent upon and intimately related to the search for Truth; when one gives up the search for Truth, (when the Truth/no Truth distinction deconstructs) scepticism goes with it. If one believes that it is always possible that beliefs may be wrong, there is no reason to be surprised when beliefs turn out to be erroneous; of course it is possible to be surprised about which beliefs are wrong. (Cherryholmes, 1999: 124, item 6, italics in original.)

Within this section I wonder about the relationship between common sense and knowledge while pursuing a third challenge to the modern/postmodern divide, Latour's (1993) challenge that we have never been "modern".

The moderns have developed four different repertoires, which they see as incompatible, ... The first deals with the external nature of reality ... The second deals with the social bond ... The third deals with signification and meaning, ... The fourth ... speaks of Being ... (Latour, 1993: 88)

Beyond "different repertoires", toward "quasi-objects"

My third challenge to the modern/postmodern divide arises from reading the work of Latour (1993, 1999, 2002) and Serres (1995), and about Serres (Harari & Bell, 1982; Lechte, 1994; Lather, 1997). Latour (1993) argues that we have never been modern: the divisions that modernism has manufactured between what he refers to as the four repertoires (nature or reality, discourse or language, society, and being) are artificially maintained within postmodernity. He suggests that we might develop a more eclectic, cross-disciplinary approach to researching emerging issues and structures. He refers to these issues and structures as *quasi-objects*. These objects (examples of which come from the discipline that Latour refers to as science studies) include the hole in the ozone layer and the AIDS epidemic; these things are "simultaneously real, like nature, narrated, like discourse, and collective, like society" (Latour 1993: 6). It is a characteristic of modernism to attempt to analyse these quasi-objects within separate and distinct domains of critique: nature, discourse, and politics (ibid:3). In so doing, Latour argues, social

scientists have created a false dichotomy between nature and society and have overlooked the central space where each influences the other: this is the space where emerging understandings arise around what he refers to as *quasi-objects*.

Quasi-objects are in between and below the two poles [of nature and society] at the very place around which dualism and dialectics had turned endlessly without being able to come to terms with them. Quasi-objects are much more social, much more fabricated, much more collective than the 'hard' parts of nature ... On the other hand they are much more real, nonhuman and objective than those shapeless screens on which society - for unknown reasons - needed to be 'projected'. (Latour 1997: 55)

Quasi-objects, then, are not clearly defined; their meanings are yet to evolve. There are ongoing interactions among our understandings of them as physical entities, the ways we talk about them, and the political actions we take in order to deal with them. Such things as racism, and the achievement rates of socially disadvantaged groups, are examples of quasi-objects - these things have emerging meanings which are affected by the language we use, the policies we put in place, and the material conditions in which we live.

The notion of quasi-objects is in accord with Rorty's distinction between a time-honoured yet entrenched vocabulary and an emerging half-formed new vocabulary which vaguely offers new things (Rorty, 1989 (above: 45)). The emergence of the object of feminism throughout the past century illustrates, for example, the slow and ongoing development of a new vocabulary. This is a vocabulary which has identified the workings of the patriarchy and theorised the personal in ways that are profoundly political.

The slogan 'the personal is political' sums up the way in which second wave feminism did not just strive to extend the range of social opportunities open to women, but also, through intervention within spheres of reproduction, sexuality and cultural representation, to change their domestic and private lives. (Gamble, 2000: 310)

The feminist movement is an example of sustained work that cuts across existing academic and social boundaries, and "second wave feminism did not just make an impact upon Western societies, but has also continued to inspire the struggle for women's rights across the world" (ibid: 310). It is this crossing of traditional boundaries that marks an important aspect of the development of a new language, or the emergence of a quasi-object. I argue, in agreement with Latour, that these *objects* which are not yet understood, yet which are seen to be important as emerging, social constructions, need to be conceptualised in ways that call upon the developing insights, actions, and understandings of a diverse group of

influential participants: such *objects*, I argue³¹ in later chapters, need to be investigated by networks of teachers, researchers, theorists, policy makers, students, community leaders, and others. By focusing a variety of research investigations, in this way, around an *emerging-object*, the educational research community acts in ways that foster collective educational praxis in relation to key issues of concern.

An *emerging-object* has the potential to bind together people who have different world views, different social responsibilities, and different demographic characteristics around a single interest. To foster the emergence of fresh understandings is to foster fresh praxis: no individual is required to act according to some prescribed principles, but all are interested in relating their emerging experiences and insights, from their different perspectives, to the central question. This notion is central to this thesis. The problem is in the identification of the object, and the creation of the diverse community of interest. Consider feminism: before the word existed, committed individuals struggled to explain, to women and others, about the need for social change; only gradually did understanding and commitment emerge.

Serres and the need for a new sacred object, a successor to science

The search for an emerging-object which will provide a way of talking across (rather than warring across) boundaries of difference is a significant challenge of our times, at a global level, and at local levels. I seek insight into possible objects and examine possible barriers within Western thought by considering concerns expressed by Serres (1995) and Latour (2002).

The writing of Serres holds an attraction for me similar to that of Wittgenstein's. Reading this kind of philosophy tempts the mind to wander, and understand things that cannot be understood when described in more concrete terms. Serres writes in a way that allows the reader to skim over the ideas and make sense of details; the implied freedom with which he

Hi, Rob, You are right to raise the question of whether to use the word "argue" is contrary to the logic of this thesis. Thank you. My resolution is that it is not: I appear to be using the word in places where I propose a moral or political argument, one which I support in this context at this time. I do not use the term to support a universal argument: in other words, I retain the right to argue differently. E.

³¹ After-word two: the use of "argue"

breaks the bounds of modernist forms of classification encourages the reader to reach for new ways of understanding those details.

Perhaps I (as Ernest) am attracted by the fact that both Serres and Latour are, or have been, philosophers of science, or perhaps it is the breadth of their discussion and its relevance to social practice that attracts. Serres (1995) is interviewed, by Latour, about his challenges to, and his abandonment of, the sciences. The inability of science to critique the consequences of its own practices is harshly challenged by Serres:

Since the atomic bomb, it had become urgent to rethink scientific optimism. ... Hiroshima remains the sole object of my philosophy. ... (Serres, 1995: 15)

Traditional epistemology still was not asking any questions on the relationships between science and violence. (Ibid: 16)

For the first time since its creation, perhaps since Galileo, science - which had always been on the side of technology and cures, continuously rescuing, stimulating work and health, reason and its enlightenment - begins to create real problems on the other side of the ethical universe. (Ibid: 17)

Both Serres and Latour write about separations: in Serres' case (Harari & Bell, 1982: xii), the separation of populations into scientists without culture, and humanists without scientific knowledge; in the case of Latour (1993: 10-11) the separation is between (a) ontological "purification" into zones of human beings and non-humans, and (b) the creation of hybrids between culture and nature which is "translation". Both criticise these separations and see them as obstacles to the construction of new forms of knowledge. Harari and Bell (1982) argue that there is an urgent need for a thinker such as Serres to find a way to reinsert the subjective domain into modern scientific discourse. "We know now that our subjectivity is not an illusion to be overcome, but is another part of reality, no less important than any other part" (Harari and Bell 1982: xii).

Serres also uses the notion of a quasi-object in order to discuss three historical solutions to the problem of violence (or fury).

The paradox seems heavy handed, but it does makes sense: the military is a solution to the problem of violence, just as the priests and economists are. Each shows its rationality in the face of an outbreak. (Ibid: 85)

Serres argues that the class struggle is not the driving force of history, but that class is constituted at a given moment in order to avoid the global unity being undone. In this

construction, it is fury that drives the division into classes, and social controls on fury have been effected, at different times, through the military, the church, and the economy. What I find interesting about this analysis is that he also argues that we need, now, to find a new control, a fourth way of dealing with fury.

We seek another, different social universal. Right away we will have to discover a new object. The money is using itself up, the weapons are at their maximum, the fetishes are dead. I know what the object of science is. But we must find a different object if we are to survive.

Sacred objects stop violence, for a time only. ... Armies stop violence as well, for a time only. ... Money still stops violence, but for a time only ... Can one imagine a different object of science, can one conceive an object of love? (Ibid: 91)

This work predates 11 September 2001. Bruno Latour (2002), when commenting on the consequences of that day, uses the metaphor of war to discuss the need for a new perspective on knowledge.

The war of the worlds: what about peace

The main point I want to take from (Latour, 2002) is his argument that, since September 11 (2001) we are at war in ways that we have not understood in the past. The West was not at war when it sought to modernise the world; instead it was sharing its largesse, and those who thought otherwise were wrong because the West understood that there were universal laws, and through modern rationality and science they were teaching the rest of the world.

The modernists, he argues,

... spread, by force of arms, profound peace, indisputable civilisation, uninterrupted progress. They had no adversaries or enemies in the proper sense - just bad pupils. Yes, even their wars, their conquests, were educational! Even their massacres were purely pedagogical! We should re-read Captain Cook or Jules Verne - there were fights everywhere and all the time, but always for the good of the people, "That should teach them a lesson ..." (Latour, 2002: 26)

The war that we are all part of is a war of ideas: rationalism versus various other forms of cultural knowledge.

There is no doubt that the war of the worlds is taking place; unity and multiplicity cannot be achieved unless they are progressively pieced together by delicate negotiations. (Ibid: 30)

The piecing together calls not only on the short-term skills of the rationalists (Latour does not advocate an end to rationalism) but also on the skills of diplomats.

The sticky point is that to the short-term reason of the rationalists, one should add the long-term reason of the diplomats. ... Diplomats know that there exists no superior referee ... (Ibid: 37)

There is scope for talk, particularly if we look to constructivism rather than naturalism as a source of knowledge.

To formulate their peace offers, to present themselves more politely than before, to introduce talks in a less counter-productive way, the former modernists, for instance, could introduce a distinction between *jus naturalism*³² and constructivism. ... *jus naturalism* is not the modernists' only tradition: they possess another, almost contradictory, tradition that is much richer and that we can call constructivist. Facts, as their etymology indicates, are fabricated, and so are fetishes, gods, values, works of art, political arenas, landscapes and nations. (Ibid: 39)

If we accept, following this richer constructivist tradition, that all facts are fabricated, then a change of question is in order. No longer are questions thought of, according to Latour, as being about the correspondence between theory and reality, "Is it or isn't it constructed?" but rather they are instrumental questions which call for value judgements ("How are they constructed? Of what aesthetic or instrumental value is this construction? Are they well constructed?).

The relevant question for the diplomats would no longer be, "Is it or isn't it constructed?" but rather "How do you manufacture them?" And, above all, "How do you verify that they are well constructed?" Here is where negotiations could begin: with questions of the right way to build. (Ibid: 42)

The aim in seeking unity is to confront "good and bad constructions of the world" (ibid: 42).

Peace negotiations are not possible unless both sides give up exoticism ... (Ibid: 42)

Latour would not disagree with Putnam/Wittgenstein's urging "a certain kind of empathetic understanding" (Putnam, 1995, above: 132), but more than understanding is

32 Gloss on jus naturalism

jus ... alternative spelling of IUS. (Mautner, 1997: 288)

ius naturale = Natural Law. (Ibid: 285)

NSOED lists neither jus (in this sense) nor ius

now needed. Exoticism refers to romantic beliefs held about people as Other: we need to discard romance about the (quaint, false, exotic) beliefs of Others. All things including science ... are open to constructivist interpretation within the negotiations envisaged by Latour.

Take the example of research. It is one thing to present oneself to the world under the cover of universal Science, and quite another to present oneself as producer and manufacturer of local and risk-laden science - with a small "s." ... A universal Science cannot be negotiated and thus it cannot be universalised for good, but sciences that aspire to incremental or emergent universalisation can. (Ibid: 44)

Latour writes about the manufacture of persons, and suggests a non-Western lens on individualism is needed. Within Western thought, he argues:

... modern [Western] psychology constitutes the indisputable base of all humanity ... [whereas] most other parties in the conflict do not recognise that there are humans, subjects, individuals or right-bearers; instead of the free-floating individual they have multiplied attachments - gods, fetishes, lineages, ancestors - that produce possible subjectivities; for them the Western individual is a monster who should be fiercely resisted. (Ibid: 47)

In conclusion, Latour's imagery speaks of the former moderns who have become postmodern, and thereby *replaced arrogance with guilt*. The task of the diplomat is to help them find out what is important, not universally, but the collective construction of meanings which will accommodate the contextualised challenges of the future. It is not universality of meaning that is important, as much as the ability to negotiate, diplomatically, across differences.

Whether in matters of science, religion, psychology, economics, or politics, the former modernists clearly have more than one trick up their sleeve. The reason they have appeared so clumsy up to now in making offers of peace is because they did not think there was any war, and then, modernisation seemed to them so obvious that it was not open to any compromise. Further when they started having doubts about modernisation and they became postmodern they became even more clumsy because they replaced arrogance with guilt, but without entering into more negotiations than they had before. It is now time to help them, to bring them tactfully to the negotiating table, making sure they recognise that there is indeed a war of the worlds, and helping them carefully distinguish between what they thought was worth dying for - universality - from what they really care about - the construction of universality. As always, the parties in the conflict do not know exactly what they are fighting for. The task of the diplomat is to help them find out. (Ibid: 50)

In this way, Latour locates a place for philosophy within diplomacy; the kind of philosophy he advocates fosters pluralism and distinguishes between universal theory, or truth, and the means by which theory or truth is constructed and justified. The latter leaves room for diplomacy.

Who then is the diplomat? Where are the philosophers who span cultural barriers and provide theoretical bases for learning to live in diverse, plural societies? Where are the practitioners who are able to take into account the broader issues that confound our social development?

Rationality, in this analysis, is myopic and deals, in its short-sighted arrogance, with only the immediate; it focuses only on the constrained pragmatic outcomes. The long term, more creative pragmatism of the diplomat is needed. This is my *commonsense*: Hélène, Karl, Ernest agree that a new form of talking across difference is needed. It is possible that we might imagine a different object of science, "an object of love" (Serres 1995: 91 (above: 148)) where differences are respected, important, permanent, paramount. This is a challenge within individual voices, it is a challenge within classrooms, and it is a challenge between nations. The challenge is in *praxis* at all levels of *self-organising system*: within the interactions of the individual, and within networks and communities, both local and global.

This moral and political point is central to my thesis: through collective praxis, we will change our world; through theorising together about our praxis, we will influence the direction of such change, for better, or for worse.

Section 3.5 Constructing the self: a pragmatic approach

I have argued that we, those of us who are primarily teachers, need to bypass debates that might distract us from our focus on our own work, debates such as those about the distinction between modernism and postmodernism, and about metaphysical reality. I propose that a pragmatic approach to the juxtaposition of theory and practice is helpful.

a properly developed pragmatic orientation can lead us beyond many of the sterile impasses of so-called "modern-postmodern" debates. (Bernstein 1992: 818)

All these ideas [..., that the alternative to metaphysical realism is not any form of scepticism, ...] are ideas that have long been associated with the American pragmatic tradition. (Putnam, 1990: xi)

It is not that these abstract debates are unimportant, it is simply that they are not the prime focus for a praxitioner. What is important is *praxis* which transcends (yet includes and does not deny the importance of) these debates.

What the pragmatic thinkers ... had in common was the conviction that the solution to the problem of the "loss of the world" is to be found in action and not in metaphysics (or postmodern anti-metaphysics either). (Putnam, 1995: 74)

"Action" here connotes praxis, which is oriented toward democratically-constructed inquiry. This is to be trusted not because it is infallible, but "because the way in which we will find out where and how our procedures need to be revised is through the process of inquiry itself" (ibid: 74-75). This applies to ethical inquiry as well as to general inquiry.

- 13. Pragmatists emphasise the importance of *community* because they recognise that an individual's subjectivity and desires are continually formed in the context of and in interaction with others. ...
- 15. ... pragmatists wish to live in democracies where a wide range of viewpoints are likely to be expressed, thereby enriching the "discourse on the consequences of thinking." Authoritarian limits on inquiry are *necessarily* unpragmatic. (Cherryholmes 1999: 125 126, italics in original)

Models of self

Within this section I shall call upon three bodies of literature which counter dominant, modern, commonsense understandings of so-called "human nature." I combine these, not into a coherent package or formula, but within a single model which is flexible enough to sit comfortably with most theories of subjectivity. The model is intended to be generic and adaptive; obviously, given the tenor of my argument, it is not intended to have the kind of rigour that would throw it into some metaphysical discussion. Its purpose is much more strategic: I want a model that will allow teachers to challenge commonsense assumptions of self as an entity and provide, instead, a model that highlights interactivity, connectivity and relationship. I want to challenge what I am calling for the moment, the common sense *psychological* model, the common sense *unified* model, and the common sense *descriptive* models of self. To do this I shall call upon, respectively: social constructionism through Burr (1995); Wittgenstein through Johnston (1993); and Schrag (1997).

Social constructionism challenges common sense notions of personhood.

Social constructionism is counterintuitive ... with regard to our notions of personhood this means that the very idea that we exist as separate, discrete individuals, that our emotions are personal, spontaneous expressions of an inner self we can call personality is fundamentally questioned. (Burr, 1995:17)

Instead of personality being viewed as something that sits inside us, in the form of traits or characteristics, we can view the person as the product of social encounters and relationships. This means we create rather than discover ourselves and other people (Burr, 1995: 28-29). What we see as personality can be seen as an effect of memory and of our search for meaning and pattern in order to describe our experiences. The self is multiple and fragmented, changeable and dependent on its cultural and historical location (ibid: 30-31).

Wittgenstein distinguishes among the conceptual, the scientific, and the substantive (the mind, the brain, the soul) not by comparing their qualities or values, but by considering how they serve different functions within different discourses (Johnston, 1993: 223). It is only in the realm of the conceptual that Wittgenstein believes philosophers should work. This is, and was, a highly contentious view as much Western philosophy has revolved around the search for truth, for an accurate description of reality, and for foundational ethical values.

The notion of the *Inner* is the key to Wittgenstein's conceptual discussion.

The idea of an Inner is a feature of our everyday discourse and part of the psychological concepts we share. As we have seen, it expresses our relation to others as experiencing beings: as beings with an Inner, we treat their non-informational utterances as expressions of experiences (and not as meaningless) and expect them to be able to offer a more or less continuous account of their waking actions. Thus talk of the Inner brings into play a distinctive array of concepts and expresses the fact that we relate to other human beings in a way we do not to machines or even to other animals. (Johnston 1993: 223)

And,

To understand the concept of consciousness, we do not need to define or describe it, but to recognise what is involved in saying that someone is conscious; what is important is not a description, but an understanding of the significance of the concept. (Ibid: 209)

The Inner, then, is that which is shared within everyday discourse. Its conception changes with the discourse. This is different from what is learned through brain science:

The sciences investigating the brain are of course quite right to assume that there is more to be discovered (and more certainly will be), but whether explanation will one day be total is a different matter. (Ibid: 218)

This is also substantively different from what is believed by some people in relation to the soul. If concepts (e.g., Inner, mind, brain, soul) are part of different language games, or different discourses we ought not expect them to be commensurate. We ought not to be surprised if we cannot construct an integrated understanding of their relative meanings.

Schrag's (1997) discussion of the self after postmodernity begins with the criticism that modernism has split knowledge off into the culture-spheres of science, morality, art and religion (5). Schrag's construction of self is based on ways in which the self is constituted through discourse, action, community, and transcendence. His construction provides a model of selfhood that challenges current, commonsense, "modern epistemological or foundational construals of self as transparent mind" (ibid: 8-9), yet he does not, as he accuses the postmodernists of doing, jettison every sense of self (ibid:9). The self is defined through its communicative practices.

In the aftermath of the deconstruction of traditional metaphysics and epistemology, a new self emerges - like a phoenix from the ashes - a praxis-oriented self, defined by its communicative practices, oriented toward an understanding of itself in its discourse, its action, its being with others, and its experience of transcendence. (Schrag, 1997: 9)

This understanding is in accord with the writing of Wittgenstein and his successors in relation to *the Inner* (Johnston, 1993), and it does not conflict with postmodern psychological theorists who challenge essentialism while they promote social constructionism (Burr, 1996; Morss, 1996).

A pragmatic construction of Self

I set out, now, to further explain the model that began to emerge at the end of chapter 2. (After that task is completed I extend the model of self and show how it is able to be related, equally well, to a collective, or group of selves). The discussion in this chapter has allowed me to refine the far end, the action-oriented end of figure 2.3.1. I am now in a position to describe more clearly the ways in which this model works for me. Johnston (1993) writes about the place of theory when he argues that the value of the work of Freud or Darwin is not in the verification of their work:

What makes their work so interesting is not so much that it brings to light new evidence or demonstrates particular causal correlations, but rather that it presents a new picture and a new way of looking at an issue. (Johnston 1993: 227)

In developing a pragmatic model of self, I am trying to find a new way of looking at relationships among theory, practice, subjectivity, agency, common sense, strategy, structure, critical and postmodern theory and a multitude of other concepts, all of which share a resistance to the dominance of correspondence theories of truth. This is so that the new picture that I draw might provide a new way of looking at the issue of generating knowledge which is collective, and therefore inevitably political, local and relevant.

The *orientations toward praxis* in exhibit 3.5.1 illustrate that I am able, when considering my actions, to usefully distinguish between those that are common sense for me (not unduly considered and planned, but based on my accumulated understandings), those that are more strategic (geared toward the hope of influencing future events), and those that are more ironic (where I recognise the futility of any such action, and act divergently, or creatively). Similarly the *epistemological positions* illustrate my freedom to move within a combination of different discourses.

Exhibit 3.5.1 Diagram of an emerging model showing the limits of my possible actions and thoughts

Commonsense Strategic Ironic Material Social Discursive Epistemological worlds

Toward collective praxis in teacher education: complexity, pragmatism and practice

Orientations toward praxis

The *epistemological positions* illustrate that Ernest, Hélène, and Karl continue to work as they did within chapter 2. These differing ways of viewing knowledge continue to allow me to theorise and to be able to verbalise, or to visualise, different ways of addressing and/or understanding a single issue.

These distinctions, among and between orientations and positions break down in all directions; they all deconstruct. Each is embedded in descriptions of the other, yet the prism serves the purpose of showing that, by enhancing epistemologies (by pushing outward in each direction) and by increasing the various orientations toward praxis, it is possible to expand the prism so that the range of possible actions is increased. This model suggests that a broad, philosophical education teamed with experiences that develop common sense, irony and strategic practice would constitute an effective and powerful educational package. When I consider the students I teach, I wonder at the ways in which schooling fosters common sense, irony and strategic practice. In many cases, it is by resisting the system that some students learn the tactics of resistance, but this is not new knowledge: consider Corrigan's (1979) study of "why kids muck around in class", Fine's (1991) study, Framing Dropouts, or Giroux's (1994, for example) analyses of border youth. Skills of resistance are learned, particularly, by those who do not see value in the school curriculum: these are the people to whom, Knight Abowitz (2000) points when she argues that resistance is a form of communication, and that schools need to adjust their practices to communicate in ways that recognise this communication.

The general name I give to the full view, the totality of this prism, is *pragmatism*, and I call the model a *prism of praxis*. It, in its entirety, is Mea-Nui, incorporating all of the ideological and strategic positions already discussed. Mea-nui, or a pragmatic approach, calls upon any relevant epistemology and any orientation to praxis: depending on the lived situation in the moment, the teacher acts/theorises, in praxis, and calls upon whatever resources are available to her/him.

While the model I have described is consistent with the descriptions of pragmatism that I have read, this is not enough. I need, also, to explore further the ways in which a pragmatic approach might affect the practices of teachers and those involved in teacher education. That is my task in the remaining chapters of this thesis.

The value of this model comes in the ways in which it can be interpreted. I am not suggesting that the locations marked on the paper indicate any solid position. There is no place called Commonsense and no fixed set of ideas of that name, nor of Irony, nor Hélène and so on. It is rather that, imagining myself inside the prism, I am always already located in some position which has a relationship to the vertices I have named. I may be acting, at any instant, in a way that relies more on Commonsense (C) than Irony (I), so I think of my position at that instant as being closer to (C) than to (I), or my focus might be on action without conscious call upon theory, so I am nearer the action end than the theory end of the prism. Yet even these locations are not as important as the direction in which I might choose to move. I might choose to be more strategic, or I might become bored and tend toward some kind of ironic withdrawal from the activity of the moment. My awareness of the possibility of these different forms of action increases my options. By pushing out the outer envelope of my possible actions I open up expanded possibilities for future action. This is one of the justifications for education - to open up the possibility of an increased range of possible future actions. (Another justification for education is to adjust commonsense so that the populace is self controlling and compliant - but that is not a transparent aspiration; it is the mark of hegemony, as Karl reminds me.)

The model has allowed me to articulate one way of expressing some of the key influences on my actions and thoughts. From this point, my task is to use that model to discuss networks of people working within communities.

The self that I have described is socially constructed, it is pragmatic, it does not depend for its understanding of itself upon any pre-established essence, yet at the same time it recognises the effects of experience, habit and tradition on its creation; there is an Inner, a consciousness, a voice (or set of voices that interact with each other) and which behaves

differently at different times. My Inner is embodied: it is never separate from, and is always influenced by, my physical self and the worlds in which we all live.



This understanding of self has been informed by, or is compatible with, the work of other theorists - yet it is not common sense for many teachers. Some teachers are immersed in a single, psychological understanding of the nature of self to the extent that they have little freedom to be analytical and strategic, or questioning and ironic. If the psychological self dominates then agency is lost, and the critique of structure is impossible: compliance reigns.

When I say, "compliance reigns", I describe something like the "pragmatic acceptance" which, according to Abercrombie *et al.* (2000), Mann (1973) posited to explain the quiescence of subordinates in the face of social and political inequality. Mann does not agree that subordinates accept or incorporate dominant values, or that there is a coherent oppositional ideology that has for various reasons not been effective.

Mann (1973) argues that subordinates accept the status quo on a pragmatic basis that is devoid of both normative involvement and opposition. (Abercrombie *et al.*, 2000, on *pragmatic acceptance*: 276)

Pragmatic acceptance of subordination (or oppression), under this construction, indicates a lack of options, a lack of knowledge, a lack of resources, a lack of an oppositional vision. Pragmatic acceptance indicates a lack of a shared, common sense of what might be done to resist, and thereby to change, the social constraints that restrict freedom. Compliance reigns, not because resistance fails, nor because teachers accept current educational rhetoric; compliance reigns because there is no other option, right now.

Pragmatic acceptance, together with other hegemonic, structural constraints, limits the ability of teachers to take part in informed analysis of political influence: this in turn prevents many teachers (particularly those who perceive self to be a fixed entity) from access to current understandings of the politics of power, of the ways in which they/we are constrained by conformity, and the ways in which they/we transmit repressive, hegemonic social conventions through their/our teaching. I discuss, in chapter 4, ways in which *critical reflection* might support teachers in addressing these issues.

Toward collective praxis

It is now relatively simple, I suggest, to adapt the prism of praxis for an individual, with its epistemological voices and its orientations toward action, to a prism of practice for a collective, or a community which has a long-term commitment of some sort. Consider the voices which exist within a collective, the voices of individuals. Each individual voice has a range of possible voices guiding it, voices among which it can choose in any particular

situation: this is individual agency. The collective as a whole has a range of possible ways of interacting with the society in which it is embedded: its choices are determined in some collective, self-organising way, from the amalgam of individual voices, which are in turn amalgams of internal, self-organising voices, each of which is influenced by the collective, other networks, and society at large.

A pragmatic orientation to the constructions of self includes the three philosophical orientations I have discussed within this chapter: these are the ironic, strategic, and common sense orientations. What I am describing is no more than a model which may be of little importance or relevance, but I choose a model which serves my strategic purposes, related to the emancipation of teachers. The challenge for me is that I perceive a gulf between modern, commonsense notions of self that sit in the public domain, and the postmodern, feminist, post-essentialist understandings of self that sit mainly within the academy.

The problem is that *my* commonsense may be located quite differently from that of other people; similarly my sense of strategic action, and of ironic recognition, will be different from those of other people, similarly my named voices are not shared voices. Other people, if they recognise such constellations at all, would have different assemblages. What happens, then, when we, our own selves, constrained by our respective prisms of praxis, meet an other self who inevitably has a different set of world views and experiences to call upon? To address this question would be to describe a theory of communication which is beyond the scope of this thesis. What is possible, however, is to explore ways in which, within education and following feminist and Marxist traditions, groups of people might come together to raise questions, investigate meanings, and to develop a collective momentum to support action in areas where social change is needed.

Chapter 4 Transcending reflective practice

Introduction: Reflective practice in transition		162
Section 4.1	On teaching and teacher education	163
•	Exhibit 4.1.1 Brookfield's Critical Reflection Process	164
Section 4.2	Smyth: reflective practice as a political tool within capitalism	165
Fo	our critical questions	170
•	Exhibit 4.2.1 Smyth's four moments and critical questions.	170
Section 4.3	Parker: 'reflective teaching' perpetuates modernist assumptions	173
•	Exhibit 4.3.1 Standard critiques of reflective practice.	175
•	Exhibit 4.3.2 Parker (1997: 139): introduction to chapter 9.	177
•	Exhibit 4.3.3 Parker's manifesto for education in postmodernity	178
Section 4.4	TL811: Critical Reflection does not address the issues	179
TI	.811: the course	179
Pr	oblems with the notion of reflective practice	183
•	Reflective practice is assumed to be essential	183
•	Reflective practice as a term, lacks meaning	185
•	Reflective practice as an individualistic notion	186
•	Reflective practice as constrained pragmatism	186
Kı	nowledge reconsidered	188
•	Exhibit 4.4.1 Trivector showing three prominent conceptions of teacher learning	190
•	Exhibit 4.4.2 Trivector showing three conceptions of teacher knowledge about teaching	191
•	Exhibit 4.4.3 A reflection on theory, and the importance of collectivity	194
Section 4.5	Family resemblances within practitioner research	196
Cı	itical Pedagogy is not enough either	197
Tr	anscending reflective practice	199
Section 4.6	Toward praxis in teacher education	205
4	reflection on a thesis	205

[R]eflective practice,

far from being emancipatory for teachers, entraps them within the New Right ideology of radical interventionalism

(Smyth, 1992: 267).

Teachers theorise all the time,
negotiate between their classrooms and school life
as they struggle to make their daily work

connect to

larger movements for equity and social change.

(Cochran-Smith & Lytle, 1999: 291)

Teachers will see their role as involving the creation of educational ends,

of educational values,

through the articulation of new narratives

of education, community and human flourishing.

(Parker, 1997: 155)

Introduction: Reflective practice in transition

There are tools for professional development and methods of researching, I remind myself, which encourage teachers to relate theory to practice: reflective practice, action research, evidence-based practice, and various other forms of participatory research. But, no, I argue, basing my case on reflective practice and calling on arguments from both the literature and my personal experience, these tools are not enough.

The reflective teacher model that has come to dominate thinking about teacher education and professional development for teachers, also serves to sustain the standard routines and rituals of teaching. It presupposes that the reflective teacher has valid information about what is happening in her or his classroom and what the students are learning. (Nuthall, 2001: 21)

In this chapter I identify some of the social trends, theories and practices which contribute to current understandings of the construct of reflective practice. I discuss critiques of reflective practice in order to identify what is helpful and what is unhelpful about the construct: my aim is to identify some current barriers that teachers encounter when they meet theory and try to relate it to their practice. The challenge for me, as a teacher who works with reflective teaching as a tool, is twofold. In order to think critically about their own work and about the ways in which teaching practices sustain the structural inequities of Western democracies, firstly, teachers need a background knowledge of educational theory so that they can see the structural (and pre-structural and post-structural) influences upon their thinking, and secondly, teachers need the vocabulary and the opportunity to speak with the authority of experience about the realities of teaching as they perceive them. Teachers need knowledge, teachers need voice. Knowledge and voice are constrained by the conditions in which teachers work (they need time, for example, and they need to be listened to, and they need the opportunity to debate emerging understandings).

In the sections that follow I locate reflective practice as a pedagogical tool within my own teaching and consider significant critiques of reflective practice, one from the field of critical theory and another from postmodernism. I argue the need to transcend reflective practice in so far as it is constructed as an individual activity, based on modern epistemological assumptions, and without a clear political/critical focus. In its place I propose a more collective form of critical, reflexive praxis where insights from different

praxitioners challenge individual assumptions and where emerging collective understandings are articulated in ways that influence social policy.

Section 4.1 On teaching and teacher education

To reflect upon educational theory in relation to one's own teaching can be hurtful and threatening. Teachers who have not thought politically about the wider social consequences of their work may be startled to realise the ways in which schooling perpetuates existing social inequalities; teachers who have little understanding of post-positivist epistemologies may be secure in perceiving their task as that of passing on pre-existing knowledge; teachers who perceive themselves as psychological entities with autonomous personalities may feel threatened by challenges to such foundational beliefs. In this light, any attempt to bridge the gulf between Schön's high-ground and swampland (Schön, 1987, above: 71) can destabilise the confidence a teacher has in her/his established ways of understanding teaching and learning.

A taught course based upon the literature of reflective practice can, theoretically, offer a pathway through this complexity. Reflective teaching is not a solution to living in the swampland but it can, under certain conditions, offer a way of moving more freely around it: it can link high-ground and swamp in ways that give access to both. Because it emerges from practice, reflective teaching is always linked to the lived experiences of teachers. But this relevance to teachers is the basis of one of the strongest criticisms of reflective practice, the criticism that this is *all* that it does: that reflective practice acts as a hegemonic tool which reduces the voice of teachers by turning critiques about the effectiveness of teaching in on themselves. By constantly concerning themselves with how to improve their own performance, teachers are lulled into cycles of self doubt and hyperactivity, and the system is coaxed into the belief that, if only teacher educators could train all of our teachers to act in the same way as our best teachers then education would improve.

This chapter offers a response to that criticism. I begin by considering two substantive critiques of the processes of reflective teaching as it is identified by Smyth (1991, 1992) and Parker (1997), both of whom suggest ways in which reflective practice might be re-formed in order to address their concerns. Within the current literature of teacher education, these important critiques have been largely ignored. I suggest that this is not

surprising, given that in each case, the language of the critique is alien to the language of those who advocate reflective practice: the critical discourses bypass the practitioners.

I argue that literature associated with both critical reflection and critical pedagogy are helpful in addressing these gaps but that neither succeeds in linking theory and practice in ways meaningful to the majority of classroom teachers. Teachers within Aotearoa New Zealand are required to take part in ongoing professional development; however, for many of them, this work centres upon updating their knowledge about how to implement changing curriculum and assessment requirements, and there is little time for more critical analysis of the impact of this work.

Voluntary enrolment in a post-graduate course involving reflective practice offers teachers a good opportunity to relate theory to practice and to develop an ongoing interest in educational theory. I demonstrate that, even under these conditions, in a course that was deemed highly successful, teachers did not have adequate (or genuine) access to theory.

Despite these criticisms, or perhaps because of them, I find reflective practice and the related notion of critical reflection to be valuable tools within teacher education. In particular, I find Brookfield's (1995) model of four lenses on practice to be particularly resilient: this model is not based upon particular strategies for reflection but instead highlights four lenses through which practice might be viewed. These lenses

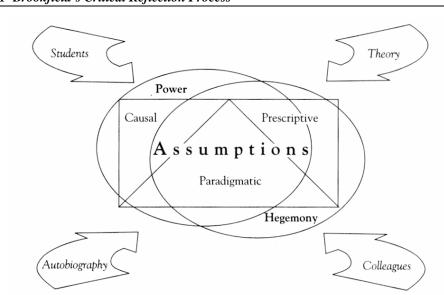


Exhibit 4.1.1 Brookfield's Critical Reflection Process

(Brookfield, 1995: 30)

(autobiography, students, colleagues, theory or literature) provide a framework around which to investigate various forms of assumption, power, and hegemony. Figure 4.1.1 illustrates in diagrammatic form the idea that different kinds of data provide different ways of viewing the theories and assumptions on which we base our teaching. Based on this model, the students in my course are invited to gather data from their autobiographical recollections (about how their beliefs might have been shaped), from their students (about how learning is experienced), from colleagues (about differing understandings and points of view), and from the literature (which provides additional insights into all of the above, and more). This generates interesting discussions, students report that their understandings of teaching alter as a result, and that this, teamed with work they do within the same course on learning theory and on critical pedagogy, combines to make a valuable package.

Yet, as I shall argue later, even though the model generates valuable discussion, I question its impact on teachers because systemic constraints leave teachers with very little autonomy. I suspect there are better models of teacher education. The problem is not the construct of reflective practice, the problem is that the construct is applied within a situation in which the shared concern is not real: there is no shared consequence of the work. There are individual outcomes planned, both increased qualifications for the individual teacher, and increased personal expertise as a teacher. There are, however, no shared goals. There is no direct way in which the shared work of the group might influence educational or social policy or practice.

I conclude the chapter by opening up some ideas about possible forms of *ongoing teacher education* that might transcend the short-term imperative to focus dominantly and exhaustingly on classroom practice, yet retain the direct relevance of the kind of reflective practice model described above. By collapsing the distinctions between theory, practice, and research it is possible to view knowledge, and therefore teaching and learning, in ways that enable teachers and students to be more active participants in the collective work of knowledge construction.

Section 4.2 Smyth: reflective practice as a political tool within capitalism

John Smyth presented a paper, *Teachers' work and the politics of reflection:* Or, reflections on a growth industry (Smyth, 1991), to a conference "Conceptualising reflection in teacher development" at the University of Bath in March 1991. When the

paper was published as an article (Smyth, 1992) the subtitle was gone - yet "reflections on a growth industry," seems to me a fair comment on the way in which the rhetoric of reflective practice has permeated teacher education.

Smyth (1992) locates the emergence of reflective practice during the 1980s as occurring within a political context where "Western capitalist economies ... were experiencing the chilling effects of what might best be described as the New Right dogma of "free marketeering." "(Smyth, 1992: 269). Reflective practice is located within "the rhetoric of devolution and practitioner forms of knowledge" (ibid: 267); it has grown in an era where a "deception" about greater autonomy and local management in schools is "carefully orchestrated and nurtured" (ibid: 269); and the rhetoric of the devolution contains tempting descriptors of teachers as autonomous, empowered, collaborative and reflective (ibid: 270).

Smyth, secondly, observes that " a seemingly inexplicable wave of enthusiasm for reflective approaches" (ibid: 268) has surfaced within teacher education some fifty years after Dewey (1933) made his historic distinction between "routine action" and "reflective action." He side-steps the issue of "what reflective teaching actually looks like" but lists twelve articles which "have done an admirable job of that" (Smyth, 1992: 268). In this way he has succeeded in both locating meanings for the expression within the rhetoric of reflective practice and avoiding the traps of essentialism or determinism. This is an important point; Smyth's call upon the literature can be read in several ways. Smyth could, to some readers, be suggesting that 'reflective teaching looks like something' (that is, something that has structure, something that Smyth is not describing, today, but that we could find by looking to Dewey and the other twelve references). Or he could have been, and I believe he was, quite well aware of post-structural discourses which would suggest that the reflective teacher looks like nothing - because he/she exists only within the rhetoric - the definitions sit only within the texts of the literature, and the texts of practice. In neither case has Smyth defined what reflective practice "actually" is.

Thirdly, Smyth does not accuse those who work within the microprocesses of reflective teaching of being "witting or unwitting accomplices in some orchestrated grand plan" (ibid: 268); instead, his discussion is "within the context of macroeconomic trends, the logic of capitalism, and the role of the State" (ibid: 268). I shall not dwell on the issue here but there is a conflict in relation to orchestration: *if* there is some orchestrated grand plan

by the New Right, as indicated above, then reflective practitioners who are sucked into that rhetoric are either "witting or unwitting accomplices." This is hegemony - but many teachers are not aware of the concept of hegemony, nor of the ways in which their actions may help to perpetuate the kinds of social patterns that they may, overtly, be wanting to oppose. The notion of an 'orchestrated grand plan' is highly problematic in that it suggests a degree of organisation that Western democracies cannot sustain. Yet perhaps I am being naïve here. Was the New Right ideology thought through in advance and introduced as a part of some monolithic plan? No, of course not; New Right ideologies emerged at the same time as, and as part of, the political pressures, policies, ideologies, and practices that drove them. I find it helpful, in this context, to think of Western democracies operating as self-organising systems: masses of relatively stupid elements rather than a "single, intelligent executive branch" (Johnson, 2001 (above: 23)) shape the patterns of the future. The notion of self-organising systems reminds me that a democracy that "engenders widespread passivity and disconnection" (Kelly 2003: 124) benefits the elite groups who continue to vote and therefore to govern: it reminds me that subtle forms of disenfranchisement lead to passivity and disconnection. I do not, of course, suggest that the lens of self-organisation should, or could, be substituted for other forms of critical analysis of political practices and agendas but I do argue that this lens alerts us to the cumulative effects of people's actions (for example, when the socially disadvantaged choose not to vote) and, therefore raises questions about how to promote democracy as, in the words of Nancy Fraser (1997: 173), "a process of communication across differences, where citizens participate together in discussion and decision-making to determine collectively the conditions of their lives" (quoted in Kelly, 2003: 124).

In a fourth reference to reflective teaching, Smyth points to "instances of counterhegemonic practices that represent important illustrations of what it means to engage in reflective and reconstructive pedagogical practice" (Smyth, 1992: 268). Smyth is not condemning reflective teaching *in toto*, rather he is identifying a criticism of it - a criticism of which I suggest reflective practitioners *need* to be aware, if they are to consider the wider implications of the work they do as teachers. In order to be able to counter hegemony effectively, it is helpful to recognise its existence - indeed, the analysis of hegemony is one tool for attacking it.

[R]eflective practices, far from being emancipatory for teachers, entrap them within the New Right ideology of radical interventionalism. (Smyth 1992: 267)

In what ways does the rhetoric of reflective teaching entrap teachers now? The term *reflection*, argues Smyth, has been hijacked from the liberal progressive educators and become "interventionist" in the sense that it "serves the crucial function of marking out an arena or platform from which conservative educators can operate" (ibid: 278).

Reflection then, becomes a means of focusing upon ends that are determined by others, not as an active process of contesting, debating, and determining the nature of those ends.

(Smyth: 1992: 280)

I have highlighted this text because it is at the heart of Smyth's criticism, and because it provides a touchstone for the practitioner to use when wondering about teaching practice, and teacher professionalism.

Much of the current literature on reflective practice does not refer to Smyth, nor can I find evidence of later material about the political and social ramifications of this analysis of reflective teaching in relation to the political practices of Western democracies. My observation of papers presented at conferences in New Zealand, and of readings in the course on reflective practice that I moderate for another institution, is that neither Smyth nor Parker has been named or cited. The exception, in both contexts, is in the work of my students and myself (Mayo *et al.*, 2000 (below: 183)).

My recollections of Smyth's presentation to the conference in Bath (Smyth, 1991) are vivid. His presentation juxtaposed two quite separate questions that interested me at the time: how to conceptualise (and therefore improve) the practices of reflective teaching, and how to become more critical about educational and political ideologies. The majority of the audience had only the former question in mind. A number of participants were very critical of John Smyth's presentation: it had located their work within a "growth industry" driven by the New Right - was he saying that they had been duped? - and what about this, and that, and that, example of situations where reflective practice had addressed hegemonic issues?

The key differences between the conference paper and the published article are: the removal of any reference in the title or the text to a growth industry; the addition of a paragraph which explicitly states that teachers are not wittingly or unwittingly accomplices

(see above: 167); the addition of a paragraph that acknowledges the complexity of the educational arena in an era of postmodernity and restructuring within education; and, most significantly, the addition of five pages (289-294) in which "resistance and counterhegemonic tendencies" are discussed. Smyth adjusted his paper to take into account the criticisms of the theorists and reflective practitioners at the conference. I see little evidence that the courtesy has been reciprocated. I wonder why. I cannot believe that a teacher-educator who has considered the arguments with care would not wonder about their implications for teachers - such a person could not be described as critically reflective unless she/he did so. Yet even a reflective teacher who does attempt to take Smyth's critique on board meets difficulties. Consider my own case. In Bath, at the conference, I was excited because of the controversy itself, but more than that, because I had been sitting through the presentations at the conference trying to be critical, but failing because I was being sucked into the enthusiasm of each of the presenters. I did not have the tools of critique that I needed. Here, in Smyth, was a presenter who had those tools. material also resonated with the ways that other academics spoke (I was at the time studying under the supervision of Paul Dowling (see, for example, Dowling, 1991 and 1998, and my writing about Dowling in Mayo, 1994) and was much influenced by his approach to the sociology of mathematics education). John Smyth was not calling upon some essential truth or speaking as though there was some ideal or foundational form of reflective practice that, when we came to understand it, we could all adopt, and his presentation enabled me to see other presentations with fresh, more critical insight.

In 1996 Smyth's conference paper became one of the required readings within a new, post-graduate level course for practising teachers that I and my colleague, Ian Culpan, developed. The course, *TL811 Critical reflection into theories and practices of teaching and learning* (TL811) has now run three times, and the Smyth (1992) reading remains central to it.

Yet the teachers (our students) struggle with the reading, and Ian and I, the teachers, struggle with tempting them to bring the ideas into their later dialogues, or conversations, or writing. Why? Is the language too complex; are the ideas too alien? At best, they, the students, will apply the four critical, practical questions (exhibit 4.2.1, below 170) to some aspect of their work as teachers. What can we do to make Smyth's critical insights more accessible? These are issues I have not published about, or discussed in public - too busy -

other things to write - other things to do! Perhaps Smyth's paper is influential for others who are working in the field too. Perhaps other people who teach using it have not published very much - or perhaps they have written, and I simply have not found those papers. These silences, current disincentives to speak, need to be addressed. But perhaps there is a tendency for us to write about the things that work easily for the author, and teaching from this paper is not easy; yet I see it as crucially important: I include the paper as required reading even within a short introductory course on issues of reflective practice. Critical questions, such those of Smyth, need to be brought into the conversations of reflective teaching; I am committed to fostering conversations and research, within teaching and teacher education, which constantly alert us to the notion that a classroom cannot stand alone, separate from social and political effects.

Four critical questions

In relation to teachers, Smyth discusses actions which, he suggests, will enable teachers to untangle the complex web of ideologies that surround their teaching.

... if teachers are going to uncover the nature of the forces that inhibit and constrain them and work at changing those conditions, they need to engage in four forms of action with respect to their teaching ... These actions can perhaps be best characterised by a number of moments linked to a series of questions. (Smyth 1992: 295)

The four critical questions which Smyth suggests teachers need in order to uncover and move beyond the forces that inhibit and constrain them are displayed in exhibit 4.2.1.

Exhibit 4.2.1 Smyth's four moments and critical questions.

Smyth (1992: 295) suggests that teachers ask four questions of themselves in relation to their actions:

1 Describe - what do I do?

The call for description is based on: the hermeneutic notion that teaching is a form of text to be described and untied; the notion that for teachers, rational action is logically prior to rational principles, the latter being a reflection on the former; the assumption that if teachers develop a discourse of their own (through keeping journals and the like) they will gain genuine ownership of their descriptions as a prelude to problematising it; and the hope that such personalised narratives might become more aware of how elements of certain situations alienate and confuse them and restrict what it is possible for them to do.

2 Inform - what does this mean?

The aim is to move teaching out of the mystical to a situation where teachers are able to see, through discussion with others, the nature of the forces that cause them to operate as they do, and how to move beyond intellectualising the issues to concrete action for change. The question is one of ownership of knowledge, it is a political question of who has a legitimate right to claim knowledge of teaching. By reflecting on this question, teachers might reclaim the authority of the knowledge.

3 Confront - how did I come to be like this?

The aim is for teachers to untangle and reevaluate taken-for-granted, even cherished, practices, which means breaking down *entrenched and constructed mythologies*. Smyth suggests an number of questions linked to power, assumptions, values, beliefs, and social practices and constraints which might help *dislodge mythologies*.

4 Reconstruct - how might I do things differently?

The suggestion is that teachers who are able to see the lived experiences of teaching as not immutable givens, but as realities defined by others and as essentially contestable have knowledge which might give them, collectively, a greater measure of self-government. "If teachers are to experience their lives in authentic terms, then they will have to expel internalised images that researchers, administrators and policy makers are so deft at perpetuating ... they are able to gain a measure of control through self-government, self-regulation, and self-responsibility that will enable them to trumpet "what's best in teaching.""

(Adapted from Smyth, 1992: 294-300, italics added)

These questions, which Smyth suggests will help teachers to uncover the nature of forces that inhibit and constrain them, constitute a socially, culturally and politically reflective approach. Yet it remains an individualistic approach in that there are no helpful clues to direct the teacher toward structural change, rather the change is in the teacher's confidence.

It may be that there has been little uptake of Smyth's work because it is couched in language not easily understood by the theorists and practitioners who have traditionally been attracted to the field of reflective teaching. The corollary of this is that those people who do understand this language of critical theory are not attracted to reflective practice; instead, they avoid it.

There are both structural and post-structural explanations for silences about Smyth (1992). The changes that occurred between the paper and the article continue to be significant for they represent an intentional, not merely cosmetic, response to the concerns of the participants in the conference. This is the kind of flexibility that enables academic work to proceed. Reflective practice has been strengthened by this development: practitioners are

now equipped to seek out and valorise counter-hegemonic practices within reflective teaching. Smyth concludes with a definition that addresses this point:

Being reflective, therefore, means more than merely being speculative; it means starting with reality, with seeing injustices, and beginning to overcome reality by reasserting the importance of learning. (Smyth 1992: 300)

In discussing the seemingly inexplicable wave of enthusiasm for reflective approaches that arose during the later 1970s and 1980s, Smyth also points out (ibid: 278) that the upsurge was "initiated largely as a counter to technicist, competency-based approaches and cognitivist views of the teacher as information processor in the USA." Other factors could also be considered, all interrelated and all linked to Smyth's fundamental argument: the emergence of constructivism (late Piaget (1995)) and social constructivism (Vygotsky (1978), Bruner (1996)); challenges to patriarchal assumptions by the women's movement, in particular to assumptions about teaching and learning and the role of the teacher (Noddings, for example, on caring (1984, 1992)); the evolution of forms of teaching which radicalised the traditional pedagogies of *mathematics education* (as in the EQUALs network, for example - and Better Mathematics (Ahmed, 1987))³³; the emergence of sociological theories that challenged causal explanations for deviant behaviour - it was no longer sufficient to blame the victim for her/his failure to conform - issues of structure and agency began to be discussed; and so on.

Smyth is right in introducing the effects of New Right ideology into the equation, but his suggestion that the wave of enthusiasm was inexplicable outside this analysis does not take into account other changes that were occurring at this time. Numerous different understandings were coming together during the late 1970s and early 1980s to reinforce the idea that the actions of the teacher within the classroom, and the teaching methods that she/he called upon, were important features of coming to understand learning; the assumptions that underpinned a more competency-based approach were being attacked in

I refer to the renaissance in mathematics education which, following the Cockcroft report (1982), filtered around the Western world, largely through the work of the International Congress on Mathematics Instruction and its conferences and networks. In Aotearoa New Zealand the influence was fostered through connections with the EQUALs network, based in the Lawrence Hall of Science (see Horring, (1997) for a discussion of this work), and Afzal Ahmed from West Sussex Institute of Higher Education. (Ahmed (1987) discusses one project upon which this work was based).

³³ Gloss on the EQUALs network, and Better Mathematics

many quarters. Therefore the knowledge-in-practice of the teacher in the classroom was important; it was important for teachers to consider political issues. I suggest that the New Right came to capitalise upon these movements, but did not create them.

Smyth argues that educational research into teaching must take into account the extensive experiential wisdom possessed by teachers.

Most educational research assumes that theories about teaching are developed by people outside of classrooms and then transfused into classrooms to be applied by teachers. Such an applied view of the nature of research is to say the least, highly problematic in that it takes no account of the extensive experiential wisdom possessed by most teachers. (Smyth 1992: 298)

I seek a research methodology that acknowledges the collective construction of knowledge-in-practice, recognising that such a methodology can be understood/undertaken only by (a) a teacher-practitioner who is immersed in both teaching and research, or (b) a collective where insights develop as teachers and researchers investigate together. The former (a) refers to the reflective practitioner as an solo individual, and the latter (b) refers to emerging models of collective praxis within pedagogy and research. Later, in chapter 6, I describe and discuss one practical attempt to link pedagogy and research through a form of collective praxis.

By restructuring the ways in which we understand knowledge and the claims that can legitimately be made by educators from different educational specialisms, it is possible to locate the teacher-as-practitioner as a person who has specialist knowledge that only a practitioner can understand. This perspective radically undermines any suggestion that theory ought to be applied in practice (it does not however, undermine the idea that theory ought to inform practice, or that a practitioner might use theory as data within her/his theorising). This perspective alters assumed theory/practice distinctions and lays the way open for a methodology of praxis.

Section 4.3 Parker: 'reflective teaching' perpetuates modernist assumptions

The second critique of reflective teaching that does not seem to have popular coverage within the literature in the field is Stephen Parker's (1997) *Reflective teaching in the postmodern world*. My copy of this text has been pored over on many occasions as I have

tried to understand the language and to explore possible meanings and implications. It is not unduly obtuse, and I find the effort of close reading is worth the effort, but it is not readily accessible, even given that I have been grappling with postmodern theory, on and off, for over ten years. Again I suggest that the reason that I have not found Parker referred to within the general literature on reflective teaching is that it is not understood there. The effort of reading is too great; but I argue that the critique is, though complex, too important to ignore. The challenge for me in this section is to signpost a track through Parker's writing; then, in the next section, I shall talk about my experiences with teaching this material and wonder about whether reflective practice might, despite these two critiques, act as a tool that opens up teachers' understandings of exactly the concerns that Smyth and Parker raise.

A very short account of Parker's enterprise follows. In Part 1, he locates reflective practice as a cluster of philosophical positions which oppose technical rationalism and which share, at least, the following:

commitment to the authority of reason; rejection of means-end conception of rationality and of a technical-rationalist view of human worth; a commitment to personal autonomy and its rational components of honesty and sincerity; emancipatory concerns, liberal and democratic politics, and idea of genuine knowledge as essentially purposeful rather than inert; transcendental justification. (Parker, 1997: 33)

He suggests that the philosophies of reflective teaching and positivism are both variations on the theme of realism (ibid: 62) and, in Part 2, by using deconstructive methods derived from Derrida, he shows how rationalism, doubt and autonomy act to bolster realism as a metaphysical thesis. Realism is the object of critique in Parker's text, and he argues that:

if realism fails it takes with it positivism and any other position which requires realism as its foundation. (Ibid 62, italics in the original)

If realism fails (and he shows that it does by journeying into postmodernism), then reflective practice *as he has constituted it* must also fail. Thus Parker has established a structure within his text where he creates his own story of modernist reflective practice, and then shoots it down. This frees him, in the final section, to describe reflective teaching as it might be constituted within a postmodern world.

Parker's construction of a (realist) reflective teacher is theoretical; both the teacher as practitioner and the researcher who publishes about reflective practice are invisible in the

text. The reflective practitioner is an abstract construction, a stereotype of "open-mindedness ... responsibility ... wholeheartedness" (ibid: 31), and similar liberal values. Parker has set up a dummy, unreal image of a reflective teacher as a target for his deconstruction. Parker describes his critique of reflective practice (as illustrated in exhibit 4.3.1) and uses it to his own advantage. In this he is employing the very strategy that he advocates later in his text when he points to the use of irony and deconstructive manoeuvres to attack the excesses of modernism. His assertions float, relatively free of evidence, as a new truth: Parker has not engaged, in any detail, with current practices or publications from within the literature of reflective practice, yet he highlights an impotence and implicitly calls for a transformation.

Exhibit 4.3.1 Standard critiques of reflective practice.

Both Parker and Smyth point to the historical, technical-rationalist influences on reflective practice and note the lack of specificity of the term:

One consequence of the cultural predominance of technical-rationalism is that any *kind* of thinking about one's practice tends to be described as reflective. ... Through a semantic sleight of hand all teaching becomes reflective. The language of reflection is rendered mute; lacking the vocabulary within which to signal the presence of an opposition to established practice, it loses its transformative power, making it difficult to initiate fundamental change or even to describe its motivating ideas. (Parker 1997: 30)

A challenge for teacher educators is to define a vocabulary, and to identify strategies to support this kind of opposition and transformation.

Reflective teaching in the postmodern world is carried out, presumably, by people who are, in Parker's terms, postmodern.

A postmodern person is Gemini multiplied, numerous selves in different contexts, the identity-switcher: unknowable and non-existent except in a relationship. At the same time she or he is committed to a framework of self-chosen, self-created values and realities. The postmodern person is one who lives the deconstructive manoeuvres which enable her to see no *truth* as necessary, *no truth* as necessary, all truths as created, contingent and transiently enshrined in *the role of permanence* within some currently fashionable text-style. She sees no set of values as fixed or intrinsically desirable but some values as continently assertable. (Ibid: 150, italics in original)

This quotation is taken from a paragraph which has as its opening sentence: "Every reading is deconstructed within postmodernity." (ibid: 150). Every reading! Including the description of a postmodern person. How can I deconstruct, or reconstruct, or *interpret* the text that describes a postmodern person? "The hegemony of any interpretation is dissevered." (ibid: 150) These readings make perfect sense to me when I am in the flow of reading this kind of writing: when I am happy to be not too rational - to get the hint of what is being implied and to move on without trying to stand on the water; rather, to be a water-skier whose momentum maintains her stability. But how can I introduce these ideas to the teachers within TL811, many of whom do not yet question commonsense, uncritical ontological assumptions, and who strive to adjust their knowledge to the universal, realist truths that they are keen to master, in the interests of becoming better teachers?

The tyrannical story of universalisation becomes just another misreading. (Ibid: 150, same paragraph)

And, at the same time, how do I foster voice and pluralism when I know that texts with this complexity will undermine confidence? These are the issues I grapple with as I try to interpret Parker's work.

While the earlier chapters of Parker (1997) draw together yet another way of looking at questions and debates about modernism and postmodernism, it is the final chapter that comes to life and gives this book its relevance to my work of using reflective practice as a tool within postgraduate teaching.

My choice, this year, was to give Chapter 9 of Parker to the students as a reading which was not discussed in class, and, as well, to unsettle some modernist, psychological assumptions by using readings from Burr (1996), McWilliam (2000a), and (Rorty, 1995). Other reflective writings were given as handouts, and teachers were encouraged to use them as a basis for their own thinking about teaching and learning. These included examples of reflective writing that came from a post-essentialist framework (the kind that Parker had overlooked when he drew his portrait of a reflective practitioner as a modernist): Brunner (1994), Griffiths (1995), Ferguson (2001), Taylor & Cowie (1997). Some readings introduced theoretical perspectives which serve to unsettle realism: Cherryholmes (1999), Lather (1992). Others were from the traditional literature of reflective practice (Schön, 1983; Elbaz, 1987), on narrative (Coates, 1991), and critical pedagogy (Freire, 1972, 1998) and (hooks, 1994). Clearly, there is more here than most

students would address in detail - they were expected to scan all the texts, but to focus on the ones that most attracted them. I want to comment on how students might have read the final chapter of Parker. If the teachers had read only the introductory quotation (figure 4.3.2) then they could have seen a connection to our class discussion which included reading Rorty's (1995) description of a final vocabulary (above: 130).

Exhibit 4.3.2 Parker (1997: 139): introduction to chapter 9.

9

REFLECTIVE TEACHING IN THE POSTMODERN WORLD

Ironism . . . results from awareness of the power of redescription. But most people do not want to be redescribed. They want to be taken on their own terms - taken seriously just as they are and just as they talk. The ironist tells them that the language they speak is up for grabs by her and her kind. There is something potentially very cruel about that claim. For the best way to cause people long-lasting pain is to humiliate them by making the things that seemed most important to them look futile, obsolete, and powerless ... The redescribing ironist, by threatening one's final vocabulary, and thus one's ability to make sense of oneself in one's own terms rather than hers, suggests that one's self and one's world are futile, obsolete, powerless. Redescription often humiliates.

(Rorty 1989: 89-90)

If they had been daunted by the density of the text in chapter 9 they might have skimmed through it and seen that some headings were followed by sentences in italics. These things stand out as beacons within the text. (I take them to be Parker's manifesto for education in postmodernity (exhibit 4.3.3).) If they had done no more than read these things then what would they learn? How might this reading affect their ideas and their words, and how

might it impact upon their actions? These questions are not very helpful ones in that they cannot be answered: I cannot report on the effects and impacts. But I can watch the words that the students use and notice when these ideas might be beginning to impact upon their wonderings, their observations, and their suggestions. There is very little evidence within the student work that I have seen or heard that this material has influenced the words or actions of the teachers (though there is some, which I will describe in the next section).

Exhibit 4.3.3 Parker's manifesto for education in postmodernity

The teacher-deconstructor

Teachers and student teachers will become deconstructive in their readings of educational texts, in their situating of received wisdom, in their creation of values, in their evaluation of courses, and of the statements of bureaucrats and politicians. (Parker 1997: 142)

Creating postmodern educational institutions

In taking up the postmodern style, educational institutions must repudiate bureaucratic imperatives to embrace the literary enterprise and organise for free textual plurality. (Ibid.: 144)

Educating the postmodern teacher

Teacher education courses will equip their students with the deconstructive manoeuvres by means of which they will be able to throw off the inhibitions of realism and engage in creative literary writing. (Ibid: 146)

The literary use of theory

Any theory, educational or otherwise, will be seen as a non-convergent literary offering providing a vocabulary with which to describe and create practice. (Ibid.: 148)

Educational pluralities

Postmodernism issues in a plurality of educational dialogues, practices, ends and values. (Ibid.: 149)

Lifestyle design

Teachers will see their role as involving the creation of educational ends, of educational values, through the articulation of new narratives of education, community and human flourishing. (Ibid.: 155)

Parker, like Smyth, is not easily accessible to people who have not read widely from the education literature that uses similar language. Parker, like Smyth, does not call upon the literature of reflective practice, or upon personal, practical experiences of being a teacher. Both of these authorities teach within higher education, but neither refers to his own

experiences in teaching within his writing. Indeed, in neither case is there evidence within the texts that these people are teachers - in each case the writing is deposited into the literature from the theoretical high ground. Perhaps this helps to explain why teachers do not grasp this material more readily.

Language is a labyrinth of paths. You approach from one side and know your way about; you approach the same place from another side and no longer know your way about. (Wittgenstein, 1953: §203)

Yet within their work there are substantive critiques of reflective teaching which cannot be ignored.

Section 4.4 TL811: Critical Reflection does not address the issues

I write, now, as a teacher who teaches teachers. In this section I explore aspects of my own attempts to teach post-graduate teachers by fostering reflective practice. In sections 4.2 and 4.3, I have suggested that the impact of the work of Smyth and Parker on TL811 was slight, but nevertheless important: without critiques such as theirs the course would have deserved the challenge that it served narrow, technocratic ends. In this section, I firstly sketch the course and the participants to provide a context for the discussion that follows. Secondly, I consider the course in the light of four problems with reflection identified by Smyth (1992), and thirdly I consider how this discussion relates to Cochran-Smith & Lytle's (1999) model of teacher learning. I conclude by raising questions about the notion of teacher-learning and how it relates to knowledge construction.

TL811: the course

The participants in TL811 (2002) were very different from each other across many dimensions: from Anna³⁴, a second year teacher who was working part time until she had her first baby later in the year, to Richard, an experienced and wise consultant and adviser of teachers; from Kate who during the year was appointed as head of an early childhood centre and who was undertaking her first postgraduate course, to Martin, who was a senior teacher in a secondary school and had just this course to complete before undertaking his

³⁴ Pseudomyms are used in this section, except where teachers have asked to be identified.

thesis; three teachers worked each day in early childhood centres, four in primary schools, three in secondary schools, seven in teacher education (although several of these refer to themselves as teachers of early childhood centres or in schools - many were initially a little surprised when I suggested that their work was with adults); nine lived in the vicinity of the College, and the remainder are scattered throughout New Zealand; four were principals or heads of their schools or centres; Martin was linked with national initiatives in the use of information and computer technology (ICT), Richard initially relied on his son to help him log onto our "StudentNet" site, and I was not confident that Judith was, even toward the end of the course, coping with the level of technological confidence that this course assumed - her computer kept "breaking down".

In order to cater for the diversity of location of the course participants, *TL811 Critical reflection into theories and practices of teaching and learning* was taught using an interactive teaching site on the Internet (StudentNet) where participants could contribute to discussion forums, share written work for comment by colleagues, share Internet links, and post completed work for marking. StudentNet served our purposes very well and, apart from initial problems for students in understanding the way it worked, I have not seen it as a deterrent to my teaching. The very opposite in fact. Because of the permanence and asynchronous nature of the communications, the participants' contributions allowed a level of thoughtful interactivity that I have not seen in regular face-to-face classrooms. I am not arguing that this is better, just that it is very different and has some important advantages in a course such as this which focuses on *all* teachers finding a reflexive voice - not merely the vocal, or orally dominant ones. A three day face-to-face workshop was held three months after the course began and two telephone conferences were used to foster involvement in StudentNet activities.

I see my responsibility as a teacher as supporting all of the participants into being effective students within the context of the course, TL811. My colleague, Ian, taught and supervised two strands of the course but had little involvement with StudentNet, while I undertook the responsibility for fostering on-line involvement. This involved encouraging this diverse group of participants to speak on-line about reflective practice, what it meant to them, how they interpreted the readings, how the readings related to their own practice, how their own teaching was influenced by the implicit theories that they held, what assumptions

underpinned the ways in which they regarded their work as teachers, how we are all constrained, structurally, within the dominant assumptions of our societies and institutions, how their own myths about themselves and their voices are often part of the structural silencing by dominant groups - and how those who are dominant may also be suffering because they do not understand the more reflective silences of the listeners. This is dangerous territory because some "entrenched and constructed mythologies" about "treasured practices" might be dislodged, or at least shaken (Smyth, 1992: 299, see exhibit 4.2.1, above: 170). These people would not have been surprised if I had set activities which required them to read, and interpret, and write an essay within which they could demonstrate their understanding of the works of Smyth or Parker. Many would have succeeded, some would have dropped out. But I did not ask that; instead I asked them to think about and write about their own teaching - and that is a much more difficult task, emotionally.

As I write this paragraph I must ignore the voices in my head that remind me about deconstructive readings of a text, and about the ways that constructions such as motivation can be taken as indicators of certain pedagogical positions which I contest. I am writing as a practitioner (not a postmodern theorist); my interest is in describing various challenges to the goal of developing a discussion space where the teacher-participants were able to talk openly about some of the meaningful issues that impacted upon them and their teaching. The most common barriers to openness that I saw and see are fears: fear of failure, fear of saying the wrong thing, fear of what others would think of a contribution (and therefore of the author), fear of technology, fear of not getting it right, fear of being corrected or told off, fear of seeming to be an idiot, fear of speaking, fear of writing, fear that personal beliefs would be criticised, fear that teaching strategies would be criticised, fear of exposure, fear of the need to confess, even to oneself, that one's doubts may be real, that one's actions may not be right, or good enough, fear that this course would not address needs, fear that a criticism of the course might insult the lecturer, fear that open comment might hurt other participants, fear that one cannot be honest/open if one lacks confidence to speak, or lacks any opinion, fear of being seen to misunderstand the readings, and again, the fear of failure: public failure, and private failure-to-meet-very-high-expectations - all these things militate against risk-taking.

Just as I am not convinced that a child's fear is overcome by an overprotective parent who eliminates the cause of the fear, or denies the existence of that fear, so I cannot teach teachers to have confidence in their own voices if I am too prescriptive about what they are to do and say; yet I need to give clear guidance in a way that will not, later, constrain them. Brookfield's (1995) four lenses on reflective practice (above: 164, and in exhibit 4.1.1) provide an organising structure for students' work while not constraining their freedom to investigate. The four lenses through which a teacher might view her/his own practices (the lens of autobiography, the eyes of students, the eyes of colleagues, and the lens of literature) invite the teacher to seek out the assumptions that underpin her/his practice but do not require the teacher to consider any particular aspect of their work. Structure is provided also, in relation to the kinds of assumptions the teachers might identify. Assumptions may be causal, or paradigmatic, or prescriptive; and assumptions may be hegemonic and related to the use of power. This model provides a structure with which I and the teachers with whom I work are very comfortable.

Brookfield writes as a teacher. He has been in those unsafe spaces where fears are multiplied and he writes about the dangers. Early in the text he writes about hegemonic assumptions: "teaching as a vocation", "the "Perfect Ten" syndrome", "Deep Space Nine", "the answer must be out there somewhere", and "we meet everyone's needs" (ibid: 15-20). Late in the text he writes about negotiating the risks of critical reflection: the impostor syndrome where teachers feel that they do not really deserve to be taken seriously as professionals because they are aware that they do not really know what they are doing. Further, he writes about cultural barriers to critical reflection: the culture of silence, the culture of individualism, and the culture of secrecy (ibid: 247-250). Brookfield's writing about the unsafe perspectives (the hegemonies and dangers of education and teaching) comes before, and after, the bulk of the text (chapters 3-10) which explores strategies and techniques of critical reflection. This writing about dangers for a reflective teacher acts as a protective barrier, or shield, in that it surrounds the lenses; it supports the teacher who fears thinking critically about teaching, talking about her/his own teaching, or participation This empathy with the fears of teachers and the grounded within this course. understanding of the pressures of teaching are features that help to make this work accessible and attractive to teachers.

I have taught four cohorts of post-graduate teachers using Brookfield's (1995) model and I shall continue to use it, because of its clarity, because it can be extended and applied in different ways, because the examples and discussion that surround his explanations are both accessible and attractive to teachers, and also, most importantly, because they find that they are able to critique the model even though they continue to use it. (See, for example, Mayo et al. (2000), which is written in partnership with the 2000 cohort of the taught course TL811: it argues that Brookfield failed in his own endeavour of keeping the critical edge within his discussion of reflective practice.) Other models define different aspects of a reflective process and the class is introduced to a variety of these through readings including, for example, Schön (1983, 1987) who distinguishes reflection-in-action from reflection-on-action, Smyth (1992) who identifies four critical questions (exhibit 4.2.1) to be applied to beliefs, Morrison (1996) who offers sets of questions to support reflective practice in relation to four forms of development (personal, professional, academic, and evaluative). Each of these encourages consideration of aspects of teaching, yet the reflective practice models described so far do not, I suggest, adequately address the need to consider collaborative or collective construction of knowledge, nor the technical rationalist assumption that the individual teacher is an autonomous agent.

I note, but do not discuss, the predominance of white, male authors among the theorists I have discussed. I could have generated a better gender balance if I were to extend the discussion of reflective practice into the area of initial teacher education (some call this pre-service education - an ironic metaphor, I think). In another thread of the course students read around and discuss aspects of critical and feminist pedagogy: the voices and perspectives in these threads are more varied.

Problems with the notion of reflective practice

In addition to the four critical questions already discussed (above: 170), Smyth (1992) has identified four problems with the notion of reflection within teaching and teacher education. I consider these, in turn, in relation to TL811.

Reflective practice is assumed to be essential

The first concern relates to the assumption that teachers will be reflective; reflective teaching is written into descriptions or checklists of teachers' competencies, so that "not to act according to some undefined canon of reflectivity is tantamount to gross dereliction of

duty" (Smyth 1992: 285). This concern was alive and well among the more sceptical teachers on the course, illustrating the tension between that which is required by some external force, and that which is in the good teacher's intrinsic interest:

Good teaching is essentially experimental and experiment entails rescuing at least part of one's work from the predictability of routine. (Ruddock 1984: 5-6, quoted in Smyth 1992: 285)

The issue is, in part, one of accountability: is a reflective teacher accountable to someone else, or is she/he accountable to self? None of my group questioned the idea that the art of teaching involved ongoing adaptation of teaching practice: teachers-as-learners is an image that they did not challenge (not surprisingly because this was a voluntary course). Some teachers commented negatively about their experiences of the restrictive nature of reflective practice as a requirement within their initial teacher education courses: they did not see why keeping a journal, or writing about critical incidents, should be a routine requirement for teachers. The assignment I set for this aspect of the course was to develop a personal portfolio and to refer to it within a critique of reflective practice³⁵. My intention was that they use the tools within an *ongoing conversation* with colleagues, and then, later, critique the tools they had used. They could experiment with anything they liked within their portfolio: scribbled notes, diagrams, videotapes, notes, StudentNet postings, autobiographical writing, reports of conversations, experiments, investigations - anything at all. They needed, however, to demonstrate that they had included at least one thing from each of Brookfield's four lenses, they had to show that they had defined reflection and critical reflection and that they were aware of the literature in the area, and their 500 words had to be written in formal academic style. I have reported on this in detail because it reflects my attempt to give them a space where they did not need to censor their thinking,

³⁵ Gloss on the portfolio requirement within the course TL811

Participants were required to submit a 500 word critique of reflective practice in which they called upon evidence from their portfolios. The evidence was to be attached as an appendix to their 500 words which was to be formal academic writing. I provided an exemplar so that participants were able to see how they could use their portfolio work to support their more theoretical arguments.

I required the course participants to develop a portfolio of their reflective work carried out during the course. The portfolio was not assessed as such: they were encouraged to be as creative and divergent as they wished in regard to what they included within their portfolios. They were advised that they were, however, to include items from each of Brookfield's lenses which meant that they had to consider, at some point, and in some way, their own autobiographical lenses, as well as the perspectives of their students, their colleagues and the literature.

and at the same time give them some guidance and a sense of direction - even though they did not know what they would find until later, when they looked back over their work. That was the point, that they would gather data about the things that struck them as important at the time, and then - later - be able to look back and see patterns. This is why they needed to write in their portfolios: not because I required any specific writing (although they had to write something which could act as data to refer to within their 500 word discussion) but because it allowed them, later, to recall their thoughts from other times and to look for patterns in their own writing.

This seemed to be remarkably effective, given the many comments that people made about their "ah-ha" moments when they came to draw their ideas together. I was disappointed that the portfolios most commonly leapt from isolated experiences to broad generalisations; next time I shall talk about analytical memos and require them to write one or two pieces about the

I wonder (9/4/03, after a seminar presentation) about juxtaposing this expectation with Jane Robertson's (Robertson, 2003) observations that, in some disciplines, such as mathematics, there is a perceived necessity for learners to defer understanding until later, when facts have been learnt. This is a skill (anticipating delayed understanding) that I learnt well at school, and at university. I notice the lack of this skill, in a number of arenas - adolescent and adult - it shows as a fear of not understanding - a fear, rather than a glee, at being in complex spaces.

patterns within their own writing. Yet therein lies the problem - the more I refine the exercise, the more I restrict them within their own investigations, the more I contribute to Smyth's first problem: that of extrinsic surveillance and control. My observation is that I, as teacher, have the responsibility to set the required parameters of a course - full-stop. It is then my responsibility, as I evaluate the course, to watch and to wonder about how well these requirements will serve the teachers, as learners and as *praxitioners*, to critique the requirements and to adapt my teaching strategies as a result.

Reflective practice as a term, lacks meaning

Smyth's second problem relates to the term reflective practice.

[R]eflection can mean all things to all people, and because it is used as a kind of umbrella or canopy term to signify something that is good or desirable to do in respect of teaching it runs its own risks of being totally evacuated of all meaning. (Smyth 1992: 285)

Where authors are not aware of this issue there is, he argues, a tendency for the term to be used as a flag of convenience that disguises the ideological baggage that it carries. I acknowledge this concern and see this casual use of the term in class: many teachers go

through a phase of using 'reflect' where they would previously have used 'think'. Teachers in TL811 do, with encouragement, begin to refer to reflective teaching in terms of a particular model that they can name, whether from the literature or of their own construction - in this way they come to distinguish the term from 'thinking'. We teach this distinction, and we also distinguish reflection (which may or may not encompass critical theory) from critical reflection (which does encompass political and social critique).

Reflective practice as an individualistic notion

Smyth's third concern relates to the outward appearance of modernity and teacher autonomy that is given by the rhetoric of reflective practice. The term *reflection* has originated from largely individualistic and psychological origins and diverts attention away from real structural problems that are deeply embedded in social, economic and political inequalities. By eulogising reflective practice we effectively quarantine the problem of what is wrong with schooling by putting teachers in sole charge of dealing with it; the control over teachers, and the silencing of individual teachers, becomes even greater as teachers shoulder this burden, and struggle to deal with their personal inadequacies and fears. This concern was the launching point for this course. Instead of focusing on reflective practice as an *ought to* for teachers, this course focuses on reflective practice as a tool for fostering teacher voice and for addressing the structural forces that disable teachers. The strategies of the reflective practice literature are not ends in themselves but ways of opening up other, larger debates. At least, that is the ideal. In practice, teacher/students do comment that this course changes their way of viewing the world.

Good, they perceive a change, but I am not convinced. I fear that structural constraints will, in reality, suck most of their vision back into routine compliance with the system as it stands. I was not convinced that this course did more than give tools to use in critique, but the course was over, students had achieved the learning outcomes.

In chapter 6, I discuss possibilities for developing a more enduring community within which courses could be completed, but which would allow the conversations to continue.

Reflective practice as constrained pragmatism

Smyth's final difficulty relates to his belief that teachers will favour a form of reflection where they focus only on the issues of the moment and seek quick-fix solutions. This suggests that constrained rather than creative pragmatism might act as a governing

philosophy within reflective practice. Those skills that the teacher has perfected for dealing with classroom routines are not easily discarded, Smyth suggests, even in the face of conflicting evidence. Teachers will choose the strategy that works in the heat of the moment so that these strategies are then taken, in a narrow, constrained-pragmatic way, to be best strategies, because they work. In this narrow sense, teachers are seen as lacking concern for the wider social consequences of their actions. The concern is valid, and the question can be usefully asked of those teacher educators who work with reflective practice: "To what extent does this form of reflective practice foster critical thinking about the wider implications of these teaching strategies?" When Smyth argues that a limited, narrow form of reflective practice is likely to appeal to many teachers he is taking a very narrow and pessimistic view of teachers and of teacher education. And he may be right. Quick fix solutions (i.e., those of constrained pragmatism) are commonly a necessity for teachers who are overworked and stressed.

Smyth calls upon Dewey who in 1904 noted a lack of intellectual independence among teachers, and a tendency to intellectual subservience (Smyth 1992: 288), and he quotes from Dewey's *Theory and Practice* where Dewey presents the willingness of teachers to take up administrative positions and expend the bulk of their energy upon forms, rules, regulations, reports, and percentages, as

... evidence of the absence of intellectual vitality. If teachers were possessed by the spirit of an abiding student of education, this spirit would find some way of breaking through the mesh and coil of circumstances and would find expression for itself. (Dewey, quoted in Smyth 1992: 289)

This fills me with immense sadness. I do not see how teachers are able to sustain intellectual vitality within current conditions of teaching, nor do I see those conditions improving in the foreseeable future. There is considerable anecdotal evidence of the increase in teacher workload since the introduction of educational reforms in New Zealand in 1989*34. It seems as though the less time teachers have to display intellectual vitality, the more they are being required to be accountable for it.

The most abiding difficulty for the teachers in TL811 was in finding time to work on their study - even though, through the portfolio at least, their study was directly related to their work. If teachers *were* "possessed by the spirit of an abiding student of education" then my current pessimism would suggest that those teachers would be seen to have too much

energy, and that the system would make them accountable for something more, something more immediate, something that would tempt them away from intellectual critique, or something that would dampen their spirit. This structural issue matters now. The unruliness of social controls challenges us, as a society, now. Critical reflection, alone by a solo teacher, cannot address these issues, it cannot address structural effects and movements; more collective, more creative strategies are needed.

Knowledge reconsidered

I believe I have detected a pattern, something that helps me to explain some of the tensions that emerge in my teachings. The pattern I observe within this and other discussions is that debates arise among: (1) common sense, and the kind of knowledge and understandings common to a community - in this case the teachers in relation to reflective practice, (2) authoritative knowledge, and all claims that those who have expertise in a particular field make about the ways that common sense needs to shift in order to cater for recent discoveries, or technical understandings - in this case I have been using Smyth and Parker to challenge common sense assumptions about reflective practice, and (3) the questions of the sceptics, or those who claim that knowledge is not as simple as either the common sense or authority makes out, rather it is unstable, emerging, collectively constructed. I

³⁶ Gloss on my perceptions of teacher workload

I do not propose to provide objective evidence of the ways in which teacher work-load has increased in recent years: I am aware of greater calls on teacher time as a result of the "Tomorrow's Schools" (Department of Education, 1988) reforms in 1989 because:

- I worked as an Education Review Officer in an era (1989-1992) when schools were being asked to provide detailed evidence that they were complying with new legislative requirements (National Educational Guidelines (NEGs), and the National Administration Guidelines (NAGs));
- later as a lecturer and mathematics adviser (1993-1996), I was involved with supporting teachers to cater for the increased requirements to record assessments against achievement objectives for each learner, and in the development of time-consuming achievement-based measures of student progress;
- more recently (1997-2003), I have been involved in teaching postgraduate teachers who are seeking higher qualifications, most doing this on top of a full-time work load.

In each of these roles, my work has supported the ongoing development of an accountability juggernaut which sucks up teachers' time: this is not intended as an unduly strong statement, nor a confessional apology because, in the interests of improved educational outcomes for all learners, each change was geared at educational good, including the benefit of the learner, the improvement of the teacher, the development of the school, and the performance of the New Zealand education system as a whole.

It would be simplistic to say these reforms were good or bad: my point is simply that the reforms have consistently demanded additional work from teachers outside the classroom as well as a shift in focus toward greater accountability for both teacher and student within the classroom.

have not argued this point, but I am about to suggest that it is possible to be sceptical of the work of Smyth and Parker who have not been able to tell a full story because their argument comes from the high-ground of theory, and while their arguments may (and do) inform practice, their kind of theory is not the kind that is at the heart of practice. They have not understood the full story, partly because there is no full story (a full story includes the future telling of the story - so no story is ever, at any time, complete), but mainly because there is always another perspective to consider.

Teacher learning

In the next few paragraphs I report on a comparable finding within an analysis of teacher learning. I use a trivector tool (which emerged in chapter 2, above: 112) to show how the three conceptions the authors (Cockran-Smith and Lytle, 1999) develop relate to, without being identical with, the three debates I have detected above.

Teachers' theorising can be viewed from the high ground, or differently, in practice.

Teachers theorise all the time, negotiate between their classrooms and school life as they struggle to make their daily work connect to larger movements for equity and social change. (Cochran-Smith & Lytle, 1999: 291)

Within an extensive review of literature related to teacher learning, teacher knowledge, teacher research and teacher communities, Cochran-Smith and Lytle (1999) identify three prominent conceptions of teacher learning (see exhibit 4.4.1) that underpin three different understandings of teacher knowledge: knowledge-for-practice (which assumes that university-based researchers generate what is commonly referred to as formal knowledge and theory); knowledge-in-practice (where the most essential knowledge for teaching is practical knowledge, or what very competent teachers know as it is embedded in practice and teachers' reflections on practice); and knowledge-of-practice (where it is assumed that the knowledge teachers need to teach well is generated when teachers treat their own classrooms and schools as sites for intentional investigation at the same time as they treat the knowledge and theory produced by others as generative material for interrogation and interpretation) (ibid: 250). The authors do not suggest that these conceptions are mutually exclusive but that they call upon fundamentally differing ideas about knowledge and professional practice - yet the three positions coexist - "the lines between the three are not perfectly drawn" (ibid: 251).

Teachers own the knowledge

Knowledge is located in practice

Teachers gain knowledge by **reflecting** upon their own practice and the practices of other teachers.



The academy owns the knowledge

Knowledge is generated *for* practice through research

Theory is developed in the universities and then **applied** in practice.

Knowledge emerges in practice

Knowledge is of practice

The construct *inquiry as stance* suggests that knowledge **emerges** within communities.

(Developed from Cochran-Smith & Lytle, 1999)

The value of a model such as this is not that it provides a typology to use in classifying teachers but that it provides a tool through which to understand different power-plays within conversations or readings. If viewed as a *trivector*, the model becomes a tool for the analysis of discourses about such things as where knowledge is located, how inquiry relates to practice, what teachers might learn in communities, and ways that ongoing professional work might improve teaching practice. The three conceptions illustrated in exhibit 4.4.1 might be described informally as: (at 12 o'clock) the common sense conception of teachers who, once trained, continue to reflect upon their practice and to capitalise upon the good ideas that pass their way throughout their lives as teachers; (at 8 o'clock) the conception that knowing more (more subject matter, more educational theory, more pedagogy, more instructional strategies) leads more or less directly to effective practice (ibid: 254); and (at 4 o'clock) the generative conception where knowledge emerges in practice - this conception does not rely on a knowledge/practice distinction, nor recognise language that is congruent with that distinction (ibid: 273).

The trivector emphasises the point that all of these conceptions are relevant to discourses about teaching and teacher education. I learn through all three conceptions of learning. I use my common sense and practical knowledge about teaching when I consider how varied

my class is and the kinds of needs and fears they are likely to bring to learning. I use insights from theoretical texts such as Parker and Smyth when I wonder about how to move the common senses of myself and the class into more informed spaces. The third kind of learning also generates knowledge that I value highly: it is knowledge that emerges as we work together as a class: it emerges for me whenever I interact with the questions and ideas of those around me. It does not pre-exist my teaching and my interactions with the real world of my classroom, in this case a classroom in cyber-space where there is some time for this emergence to be recognised as a product of careful thought about what response to give in a particular situation. Building upon the model of (exhibit 4.4.1) I have produced a model of teacher knowledge about teaching (exhibit 4.4.2). This latter model retains Cochran-Smith and Lytle's headings but alters the descriptors to highlight knowledge rather than learning.

Exhibit 4.4.2 Trivector showing three conceptions of teacher knowledge about teaching

Teachers own the knowledge

Knowledge is located in the community of practitioners; it is tacit and local; it is some *form* of commonly agreed yet flexible praxis.



The academy owns the knowledge

Knowledge, gleaned through *research* and theorising, provides teachers with *valid information* about classroom practice.

Knowledge emerges in practice

Knowledge is dynamic in the sense that what we know *in situ* allows us to act and learn *in situ*. Thus, knowledge emerges in communities.

Note that this diagram locates 'valid information' within the academy. This is the connotation I take from Nuthall (2001, above: 162). Valid information, tacit knowledge, and knowledge *in situ* are not located hierarchically or in opposition to each other within this model. All three are important: the historical knowledge of communal discourse, the empirical knowledge attained through scientific investigation, and the emerging knowledge that arises *in situ* are all important in different ways. The search for valid information within the academy is necessarily only one aspect of research into teacher knowledge.

Knowledge, which is so intrinsically unruly in the postmodern world, cannot be classified simply into these three categories, or any other three. Each of the three has an important part to play for me: even if I realise my colleagues in schools might lack some academic knowledge, I value immensely their wisdom about teaching; even while I undermine the hegemony that the academy owns knowledge that can be applied, I respect the knowledge it produces, and will use it as data for my own theorising; even as I, located in a classroom, act on the spot, knowing that I and we are creating knowledge, I recognise that we, the group, are calling on both tacit and named pre-existing theories in our constructions. Thus all three forms of knowledge are inextricably linked. In TL811, I therefore needed to teach using a model of reflective teaching that did not separate out these three conceptions, but rather, allowed them to complement each other.

Brookfield's lenses allowed that to happen because they describe ways of looking and places to look, not ways of being, and they do not prescribe what should be observed: they call on tacit theory/data (autobiographical and collegial) and published theory/data (literature) and they invite new theory/data (by seeking to understand students' current experiences of learning, and by fostering reflection and discussion). We, in TL811, did not study the texts of Smyth or Parker in any depth as a community. Instead we explored, within our conversations, issues that they had raised. The conversations within StudentNet seemed at times to be patchy and spasmodic but they were vital, living conversations for those who had worked hard on the literature; teachers did talk about practice; they did get into the habit, quite often, of linking what they were saying to some theory from their readings; their own theories and ideas did emerge; some initially quiet students began to take part in conversations and wrote later about how much they gained by realising that they too were expected to speak - very different from face-to-face, they said. On the telephone, when talking with individual students, I would hear stories that showed immense insight, or that linked practice to the kind of theory we were talking about; I would encourage the student to "pop it onto the Net." "Oh, no," I can hear Ruth saying, "that is too ordinary, no one would want to hear that - everyone else says such wise things." This is one of the myths of the silent: that their words are not interesting to others. Expertise is always out there, with other people. Is this what Dewey was referring to as "intellectual subservience"? Perhaps teachers are not so much subservient as positioned as silent, and not listened to. Perhaps they have no spaces in which to speak, unless they step

outside their teaching space and join the contest to be heard within the exclusive academic domain.

We did not study Parker and Smyth, we lived it. I found I was inserting comments into my postings on StudentNet that encouraged the teachers to consider assumptions related to power, or truth, or essentialism, or assumptions that they were making about other aspects of reality. I found that I was calling on the literature, not to back up my arguments but to encourage ongoing conversation: to encourage them to use yet another of Brookfield's lenses (above: 164), or to ask Smyth's questions (exhibit 4.2.1: 170) or to wonder about this assumption or that. I look back at Parker's manifesto (exhibit 4.3.3: 178) and know that most of the group would not understand its language, but that (if reminded in the right way) they would have some idea of these issues as they related to their own work. I think that I was not so much immersed in teaching as in conversation. I was not commenting upon, nor interpreting the ways in which the students' work reflected the theory, I was talking with them about the ways that these ideas did and did not support my, and their, ideas about teaching. This was praxis. It was not in the realms of technical discussions about distinction between interpretation and representation; we were seeking meaning in practice, in our daily, real-world actions. There is clear evidence of voice appearing consider this unsolicited comment from an email that thanked me for some aspects of the course:

... I felt that you made it safe. You have pushed me along the road so that I am now into deep thinking and inspired to more learning. I believe that I would have given up without your encouragement. I heard myself challenge the pedantic chemistry PHd [sic] brother in law the other night when he was on and on about science being the only proof [of what?] and that his English university training was the only and right way. Was it me an old kindy teacher who said loudly and firmly but how do you know!-And the best bit was I could hold an opinion as strong as his. Whoops. Thank you ... (email from a student 17/11/02)

What did not happen was closure. There was no space, or time, to deconstruct the detail of our communications and to synthesise our findings into neat packages. We did not summarise Smyth or Parker and tell a neat story about their stories, or our own. This was never achieved - because practice always moved on - the meaning of the moment became distilled into knowledge of some sort or other. I call it experience. Whatever happens as an outcome of this study will happen through the individual understandings and actions of

the participants, because the community is gone now; we are all rushing on with our other lives.

My summation is that there are several factors that have contributed to this communication where teachers came to think deeply about their work and shared their ideas. The factors relate to building a variety of communal spaces where different groups of teachers could talk in small groups about things that interested them: asynchronous participation means that people had time to think about their responses before submitting them; involvement was compulsory yet the detail of what they contributed was very open to choice; and I asked students to name or confront barriers to their participation whenever they perceived them.

Exhibit 4.4.3 is a reflection on interactions with a student. It demonstrates (a) the practical use I have been able to make of theory, such as Saussure's distinction between synchronous and diachronistic perspectives and (b) an addition to add to my argument, namely that collectivity is an important, and undervalued, aspect of ongoing educational development (by which I mean much more than individual teacher development). Theory is much more than an analytic tool, it is a guide to living practice, collective practice.

Exhibit 4.4.3 A reflection on theory, and the importance of collectivity

Reflection

Jane, the student with whom I was talking, had considerable doubt about her ability to complete the course. She was a mature student, relatively new to teaching, who was grappling with personal problems which dated from her youth. At a point where she was about to drop out of the course I talked with her, at length, on several occasions, and she talked with others too from within our programme. As a result she elected to work (in addition to her regular discussion group) with one other student she selected as a buddy, and with me, so that she could test out her ideas before she put them up onto the forum space for public discussion.

Jane had been involved in various popular programmes which are based upon the psychology of the individual, she had been to re-birthing classes, for example, and was aware of notions related to transactional analysis and co-dependency. She discussed with me the ways that she doubted herself, and I wondered with her about whether there might be other ways, other lenses, through which to view her situation. We talked about social constructionism, and she read some of Vivienne Burr's work.

Saussure

Although I did not use the technical language, we talked about the difference between synchronic and diachronic³⁷ perspectives on language and on being. I realised that (to paraphrase Lechte from footnote 37) I favour the synchronic over the diachronistic aspect in relation to individual psychology because it provides a clearer picture of the factors present in any state of interaction. If Jane was having difficulty in relating to her brother then it is possible to consider ways of changing current interactions, rather than looking to ways of changing some assumed, troubled, persona.

This perspective does not eliminate the historical elements. It merely suggests that the problem resides in the present, not the past, that what is needed is skill in dealing with the present, and to the extent that we need to call upon the past for understanding then we do so, but we need always to be sceptical, or critical of the truths we see in patterns from the past because they may deceive us. Jane does not need to perceive herself as being flawed or less than competent - rather she needs to look, with her family, collectively, at developing more agreeable ways of communicating.

Reflection

This writing is a form of thought experiment, it is an enhanced recollection of the experience of the time. It is valuable to me because it has allowed me to make a connection between Saussure's distinction and my practice as a teacher. I celebrate it because 12 years after meeting this theory, it has now been useful to me in my practice - it has acted as data to guide my action.

The experiment has also reinforced my conviction that modernism, with its focus on individual achievement and theoretical knowledge, has suppressed collective understandings and ethical values. I need collegial support when I choose to teach differently, and I gain it through my networks. It would be easier to be more conservative and cling to the notion that, if a student does not conform to what I offer, then it is their problem, not mine, not ours, theirs.

This perception, that students need to conform to what is offered, perpetuates existing social inequities.

³⁷ Gloss on Saussure's use of synchronic and diachronic

Language, Saussure says, is always organised in a specific way. It is a system, or a structure, where any individual element is meaningless outside the confines of that structure. ... To see language as being like a chess game, where the position of the pieces at a particular moment is what counts, is to see it from a *synchronic* perspective. To give the historical approach precedence - as the nineteenth century did - is by contrast to view language from a *diachronic* perspective. (Lechte, 1994: 150)

I quote this to clarify Saussure's distinction between synchronic and diachronic, but note, with some amusement, that I now want to challenge the linkage that Lechte makes, on Saussure's behalf, between a system and structure. *Structure* connotes some solid, permanent core which has been challenged by post-structural theory, whereas *system* connotes a dynamism which allows it to be linked to complexity theory (and other less structured theories).

In the next section I write, briefly, about why I consider reflective practice and other teacher education strategies that rely upon the notion of the teacher as isolated pedagogue or practitioner to be insufficient: individuals are not able to address structural problems. In the final section of this chapter I am then able to discuss my central thesis, that a new vocabulary may be needed in order to develop fresh ways of challenging the hegemonic dominance of both individualism and the search for universal truth.

Section 4.5 Family resemblances within practitioner research

When Wittgenstein wrote about family resemblances (introduced in footnote 12, above: 44), it was as part of a discussion about language and meaning: he argues that meanings are not circumscribed, no boundaries have been drawn around the word. I call upon the notion of family resemblances to point to the emerging notion of praxitioner research: resemblances indicate that they are clearly related, even though they are not clearly defined.

... When I give you the description: "The ground was quite covered by plants"- do you say I don't know what I am talking about until I can give a definition of a plant? (Wittgenstein, 1953: §70)

Wittgenstein discusses language games, and points out that shared features among games (chess, tennis, ring-a-ring-a-roses) are not easy to define; some characteristics are shared and others disappear.

...the result of this examination is: we see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail. (Ibid: §66)

I can think of no better explanation to characterise these similarities than "family resemblances"; for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc. etc. overlap and criss-cross in the same way. - And I shall say: 'games' form a family. (Ibid: §67)

Wittgenstein's argument is in relation to language:

... Instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all, - but that they are related to one another in many different ways. And it is because of this relationship, or these relationships, that we call them 'language.' (Ibid: §65)

When he refers to *number* as another example of a family resemblance Wittgenstein shifts the metaphor and uses the notion of a thread to illustrate that the meaning of a term such as number does not rely on a central essence for its meaning.

... And we extend our concept of number as in spinning a thread we twist fibre on fibre. And the strength of the thread does not reside in the fact that some one fibre runs through its whole length, but in the overlapping of many fibres. (Ibid: §67)

So it is with practitioner research into teaching. It is not that there is a common fibre that runs through all forms of teacher investigation into teaching practice. Whether a practitioner uses tools linked to teacher investigation of practice (through reflective practice, action research, narrative research, ...) or whether the focus is on pedagogy (critical or feminist pedagogy, pedagogy for the oppressed, or for freedom, ...) there is a family resemblance that runs through all forms of research where the focus includes the teaching practices of the researcher. None of these forms of research satisfy the objectivity requirements of those forms of research that are linked to the positivist myth of Truth-out-there.

In this section, 4.5, I touch on the literature of critical pedagogy to show that it, like that of critical reflection, falls short in its ability to attack the twin *hegemonies* (the dominance of individualism and realism) that prevent teachers from being immersed in educational debates about the emerging relationships among, and the meaning of, educational theory, research, and practice. I argue that in order to include teachers in the educational equation where they belong, we need to transcend reflective practice and all the members of its extended family.

Critical Pedagogy is not enough either

Participants in TL811 are asked to select three readings related to critical pedagogy, to review them, and to synthesise their reading. In the final activity in the course, after the teachers have completed their portfolios and I have given feedback on them, each participant chairs a conversation about an aspect of critical pedagogy that interests her/him. Ian oversees this activity and gives feedback to the students. Here is an opportunity, Ian and I believe, for the teachers to talk together and to make connections between their own practices and the various threads of the course. On the one hand I am excited by what this activity generates: because it comes later than the activities that are more formally

assessed, and because the teachers are leading their own discussion threads, the conversations have become wide ranging and interesting.

On the other hand I am frustrated. What has become apparent is that, even when we bring critical pedagogies into the discussion, we are not addressing the fundamental critiques of reflective teaching - the autonomous individual continues to focus on practices within classrooms. It appears that within critical pedagogies, the individual teacher is being expected, not only to reflect, and to remember to reflect critically, but also to teach an even more difficult curriculum: she/he is being asked to be aware of the social, political and economic forces that affect schooling, and to teach in ways that make the students also aware of these things. No wonder Brookfield was able to develop such an extensive list of hegemonic assumptions/dangers for the critically reflective teacher (above: 182). The teachers who leave TL811 have a burden greater than when they entered. No matter that some of the course evaluations are brilliant, no matter that some students speak enthusiastically about how this course has changed their way of looking at their teaching, or that it has fostered their confidence so that they can now speak where previously they would have been silent, no matter that some secondary schools are exploring the possibility of introducing aspects of critical reflection as part of their in-school professional development programmes in 2004. All of these things sustain the hegemony that reflective practice is an activity that responsible teachers carry out *individually*, and which will therefore benefit their pupils, and the economy, and society at large. What should I do? Teach worse? No. I/we need to network better and find ways to teach more critically. It is the isolation of the teacher from a coherent social movement that is the issue.

Am I, as an autonomous teacher, able to teach better in a way that matters? I doubt it. I disagree with the suggestion that when doubt surfaces for a reflective teacher, or when confidence and certainty are undermined, then teachers need *therapy*.

Our certainty often goes unjustified but at this point doubt requires not *argument* but *therapy*. (Parker 1997: 125)

As Parker indicates it is doubt that needs therapy, not the teachers; teachers need solidarity which accommodates both argument and therapy: they/we need to be involved in discussion about the problems of education, at the structural level as well as in relation to their/our personal agency.

Teachers and students need solidarity, they need community; where teaching works well, where learning functions well, where critical pedagogy works, it would involve the learners with the teacher as a learning community together responsible for the class community. The challenge, always, is how to build that kind of community and how to treasure the ideal of learning collectives where people's pain, isolation, and resistance can be healed. The challenge is to find new ways of understanding what to do in situations where adolescents feel unhappy and isolated from learning, where children disengage from learning, or where adults within one department or faculty will undercut the work of their colleagues (see, for example, Richardson's (1997) account of how, even though she was a well-recognised speaker in postmodern debates, she was sidelined on home turf: "The positivist game, rule-bound and moribund, had shut off debates, ... Post-structuralism was defined as "antirational," and its adherents needed to be "drummed out" (Richardson, 1997: 126).

It is through association, community building, sharing, and empathy that we have some hope of repairing and transforming culture. (Richardson, 1997: 79)

How we communicated affected the kind of community we could be. I wanted a community that valued empathy, entrustment, good spirits, participation, human agency, and ceremony. (Ibid: 83)

Transcending reflective practice

Reflective practice, reflective teaching, critical reflection, critical pedagogy, action research, and the application of theory to practice are all strategies that lay responsibility for change within the education system at the feet of the individual teacher. A benevolent system supports the teacher and helps her/him make these changes, and implement the innovations that are developed by others. But the suggested changes are all experiments which the teacher is persuaded to adopt, and (through discourses that foster her/his sense of responsibility) she/he is persuaded to advocate for these innovations. This is progress, this is hegemony. By this I mean that, as soon as an action is required by others or by the system, in a progressive, formulaic way, it becomes ideological, requiring the teacher to focus on ends determined by others, not active in the process of contesting, debating, and determining the nature of those ends (Smyth, 1992, above: 168): it is easier to trust the wisdom of others, to accept the hegemony that an individual teacher who functions well

can make a difference if she/he will only implement this strategy well, and suffer the exhaustion, quietly. A reflective teacher needs to be aware of such things.

Not all of the students within TL811 appear to share this understanding. Some are continuing to advocate that reflective practice is a wonderful thing (not that everyone likes it but, for those that do, it provides this or that benefit), some of these people are promoting it (whatever *it* is) in their schools or in their teaching and telling others that they should reflect critically too. This apparent naïve acceptance concerns me, yet I can understand it because it provides an apparently comfortable escape from the complexity of more difficult analyses.

It seems easier for them to seek secure short-term and short-sighted answers than to allow their minds to investigate bigger issues within the complexity of postmodern perspectives, and I wonder how to challenge this desire to find comfort in simplicity. Naïve acceptance of simple truths allows a rhetorical escape from harder questions about where to go from here, it provides an escape from:

a swirling postmodern dance of surfaces that leaves everyone burnt out and suicidal? (Smith, 1997: 268)

Why do I seek to lead teachers into and beyond this dance? I do it in order to try to free them, as I myself have been freed within this dance from the constraints of Western hegemonies about the autonomy of the individual self. I acknowledge that if individuals seek this space alone, they may become overburdened. It might be enabling, though, to enter it collectively and to be part of unhurried ongoing conversations which might undermine some of the frenetic activity that is our Western heritage. Might this be a way through the pressures of our times? I call on Smith, and others, for some thought along this line.

Smith (1997) opens an insight into the complex questions of identity within Western academies (and I suggest, into questions about teacher workload and job satisfaction) when he suggests that the collapse of the Autonomous Man has produced a fierce competition to redefine the character of the human project.

Capitalist pedagogy exhausts itself with endless busy(i)ness predicated on an assumption that student or teacher agitations are the consequence of allowing feelings of lack to rear their ugly heads, with the remedy being to labour even more intensively to fill any empty spaces with variations-on-a-theme activities. (Ibid: 268)

He argues that within the new identity politics, "identity is still linked to a profound *desire* for identity, and that there is something neurotic, in the nature of tail-chasing, at work in the whole enterprise" (ibid: 268).

Smith states that the most profound disease of Western pedagogy is activism.

Christopher Robin?' and you say 'Oh, nothing,' and then you go and do it. ...

Children in today's classroom have virtually no time to simply dream, wait, think, ponder, or learn to be still. (Ibid: 276)

Christopher Robin*36 agrees: he says that what he likes doing most is *Nothing*, which is [w]hen people call out at you just as you are going off to do it, 'What are you going to do,

It means just going along, listening to all the things you can't hear, and not bothering. (Milne, 1928/1994: 244)

In an the context of the Indian sub-continent of Asia, Smith says of the role of the teacher:

The interest of the teacher is not to teach, in the usual sense of imparting well formulated epistemologies, but to protect the conditions under which each student in their own way can find their way. (Smith, 1997: 273)

His wish is to relegate the whole identity question to a different kind of frame from one where there is inextricably a connection between Self and Other. This connection includes the narrative self as discussed by Paul Ricoeur (which is in concert with my discussion based on Schrag (1997, above: 139)).

The narrative self is a kind of storytelling ego who identifies him- or herself as the centre around which is constellated a series of Others who provide the necessary conditions out of which the drama of Self can be revealed. (Smith, 1997: 269)

I call upon this work to show that there are many pathways through the swamplands that I am referring to as teaching practice, that there are many ways of thinking about identity, and to highlight the nature of the isolating individualism that permeates Western thought. I

38 Gloss on Christopher Robin

Christopher Robin, and other characters from A.A.Milne (Pooh, Piglet and Rabbit in particular) have served as additional, figurative voices throughout the development of this thesis. They signify voices of commonsense, they undermine the authority of the written academic text (but gently), and they remind us that the sense I (or anyone) makes depends on all of my past experiences (including the books of my childhood) as well as the things I currently perceive through my interactions in the world. These friends accompany me on my *Expotitions* (below: 227) into various possible futures.

do not attempt to incorporate Eastern philosophy within this thesis, yet this fresh perspective suggests that:

Western pedagogy is too often precisely an act of defacement, for both teachers and students, as they struggle mercilessly to fit themselves into codes and agendas that maim and scar the soul. (Ibid: 277)

Toward more creative pedagogies

"How might it be otherwise?" - this is my final question within this section. How might it be otherwise for teachers and students, so that we are not mercilessly fitting ourselves into codes and agendas that scar and maim the soul - that promote "intellectual subservience."

Four structural constraints strike me about TL811 of 2002. Firstly, the class ran for a specified time as a part of a larger qualification. The reason the students were there, fundamentally, was to gain one more element within their individual qualification. To be sure, their motives for undertaking further study and their interest in this particular course may have been altruistic, and they may have revelled in the learning - but they were all enrolled as students who were seeking further qualifications, and the course ran for one year only. Secondly, the group did not have a shared, common issue that they needed to address together in some form of partnership where each wanted to learn about the perspectives of the other. To be sure, people took a neighbourly interest in the work of each other and they were supportive and kind to each other - but their interest was not that of people who have an overriding need to make wise decisions together within real situations. Thirdly, the majority of students were undertaking this work on top of a full time teaching job. This inevitably meant that relaxation, family life, and the time to "simply dream, wait, think, ponder, or learn to be still" were sacrificed in order for the work to be carried out. By teaching about reflective practice in this way, we exacerbate the problems of hyperactivity within our education system. Fourthly, all of the members of the community were either postgraduate students or lecturers; and all were involved in teaching rather than any other branch of the education community, such as research, policy making, or reviewing - so there was no opportunity to understand differences across these boundaries.

How then, might we transcend the limitations of reflective practice?

My writing in this chapter demonstrates that reflective practice is capable of reflexivity. It can be turned back upon itself and offer critique which is substantive and which leads to reconstruction of the questions that it is able to address. It has a significant and varied literature, all of which has avoided positivist constructions of reality. Reflective practice can be constructed in ways that integrate theoretical and practical understandings within one framework: further, because of its location *in situ*, it can function to undermine this and other dichotomies. Thirdly, it can give voice to teachers. For these reasons I am staying with the notion of reflective practice as a generic strategy on which to build.

The four structural constraints I have noted about TL811, 2002, give a hint of possible and desirable characteristics of a reflective community focused on teaching towards social justice. Firstly a reflective community would not have a start date and an end date, nor a list of learning outcomes. Secondly, there would not be a fixed cohort of members; although there would be considerable *continuity*, some people would come and others would leave over time. Thirdly, a reflective community would have a shared purpose they would come together to deal with a substantive issue, an *emerging object*. Fourthly, members of such a community would be working on their substantive issue as part of their *workload*, not in addition to it. Fifthly, the members of the community would be much more *diverse* - their commonality would be in their shared interest, and they would each, individually (yes, they are individuals, the members of this community), be working in line with their respective personal goals, be they undergraduate or post-graduate level study, or some form of research output, or policy development, or they could be teaching within, or coordinating the work of the community itself.

What I am suggesting is not revolutionary; it fits closely with the voluntary adult and community education traditions which were established in the nineteenth and twentieth centuries in many countries of the world. It is happening in institutions that have significant research projects which offer scholarships and opportunities for students and teachers to join the community as visiting researchers or research assistants, or teaching fellows. It is happening in a different way in some schools which have developed innovative ways of addressing their own professional development needs, sometimes supported and fostered by School Support Services. It is described by Wilson and Berne (1999: 204) in relation to ongoing school-university professional development partnerships, and it is described by Cochran-Smith & Lytle (1999) in relation to the

development of learning communities. It occurs where networks of teachers come together under a shared political banner. Apple (1993) writes, for example of the *Friday Seminar* which is:

the story of the conscious attempt by one limited group of people to maintain a sense of community, one both grounded in an ethic of caring and connectedness and at the same time one meant to challenge the existing politics of official knowledge and each others' thinking about it, in a kind of institution where this is difficult to maintain. (Apple, 1993: 152)

This kind of community-building activity may be seen as peripheral to research because of its distance from overt, individualistic measures of research outcomes (the number of journal articles published, for example) remains a measure of the achievement of the individual researcher, even in an era when the validity of constructing a researcher as an autonomous individual is challenged (Scheurich, 1997: 170-171). Community building of all sorts is, however, a fundamental part of fostering more collaborative, more collective ways of knowing: communities, in the sense I am using the term, are ongoing and open, with multiple points of entry, constantly scrutinising their emerging assumptions and recycling their understandings in the interests of celebrating their creativity in addressing the issues of our times. Apple argues that the need (in an era of conservative restoration) is to keep progressive traditions alive so that they do not slide slowly into cynicism, but equally, the need is to prevent the critically-oriented traditions from becoming overly esoteric and hermeneutic. The issues are not ones that can be addressed by individuals alone.

These are complex issues, ones that are as much collective as individual. Because of this they require a collective response. Yet, this in itself necessitates the building of a community in which such responses can be articulated, shared, challenged, and rebuilt. (Ibid: 151)

It's alive (Richardson, 1997, above: 74): the swampland and the high ground cannot be separated. The participants in academic and political debates, teachers pondering the implications of their practice, whether their origins are in the high ground or not, need to be working together within their networks of debate. In the next section I shall look towards a methodology to support an ongoing collective focus on pragmatic knowledge that builds upon existing canons as well as emerging experiential wisdom.

Section 4.6 Toward praxis in teacher education

A reflection on a thesis

I have created a log-jam of problems and issues, far more than I could address and defend within a traditional thesis. If I had traditional aims then it would be easier, at this point, to give up and start again, but I am far too strongly attracted by the argument I am constructing. My interest is in exploring the possibility that collaborative research activity might be emerging in ways that have not previously been identified; I suggest that the evolution of knowledge since the enlightenment has favoured certain ways of thinking and knowing, and that there is now sufficient evidence within the literature of the social sciences and of the new sciences to begin to look differently at some deeply-held beliefs about the way in which research might inform practice.

Yet I know that I am wrong if I claim that this work is novel because the evidence that I am collecting together is readily and publicly available. In one sense, there is nothing new in what I am arguing because it has emerged from current theory and practice. In another sense this work is entirely new because this juxtaposition of material does not exist anywhere else (it cannot for no-one else has my experience, or will have chanced upon the same readings and interpretations as I), and because the implications of these juxtapositions provide opportunities to address social issues in fresh ways. Regarding my writing, I recognise this is an *exploratory thesis*³⁹. I see a log-jam of theory and rules which suggests I need to push my way through, but at every turn I see that there are exceptions and possibilities which make the pathway clear. Others may ask: Is this new knowledge I am producing or was this knowledge there all along? Others may wonder

³⁹ Gloss on an exploratory thesis

Phillips and Pugh (1994) suggest that there are three kinds of research: exploratory research, testing-out research, and problem-solving research. Of these three they strongly advise doctoral candidates to undertake "testing out" research and suggest the risks of failure in the other two kinds are greater. I classify my research as exploratory. I recognise that "being thrown in at the deep end is very heroic but it does tend to induce a phenomenon known as drowning!" (Phillips and Pugh, 1994: 51). I claim not to have drowned, but rather, to have found a pathway through the complexity. My confidence is based on the fact that I am not a novice educator - my intuitions are grounded in experience.

whether I am creating a new pathway through the log-jam I have created, or merely describing something that is already well known.

What I am doing is both novel and grounded; it is both existing and emerging within current theory and practice; it is both theoretical and experiential; it impacts on both teaching and research.

This research is theoretical and exploratory: because I have chosen not to undertake an empirical investigation within an existing paradigm, following existing methods, I have created greater flexibility than other projects allow, yet I have found that most things I thought of as novel are already discussed within some other investigation. I have not been able to create the kind of learning/research community I envisage within the wider educational community because of the structural enormity of it: yet this is exactly why the methodology I am about to employ is important, because the pragmatic approach I am championing opens up an optimistic, idealistic pathway through current educational and social problems. The kinds of community I discuss do already exist in various forms: within my own experience they exist in smaller networks and family/whānau and in iwi connections, and I read of other ones - all share *family resemblances* (Wittgenstein, above: 196) to the kinds of learning community I discuss in the next two chapters.

My aim is to echo the wishes of critical and postmodern theorists from earlier chapters as well as of Parker and Smyth who challenge, but do not set out to jettison, realism and individualism. Because my argument calls upon such varied literature from the high ground I cannot debate the detail of any one position, nor do I want to, because to involve myself in any one particular argument is to bypass many others. Therefore I must adopt a different strategy, or series of strategies, many of which are already evident in my writing. I seek, metaphorically to *change the waters*, to create a *new vocabulary*, to promote the use of a *variety of lenses* through which to view educational phenomena. I argue that all of these strategies are collective rather than individual strategies and that therefore we need to seek collective forms of research in order to address these new questions.

Toward collective research

My strategy is simple because it has been used before, by Copernicus and then by Kant: the strategy is to turn an issue around so that the subject is no longer central to a universe,

and to realise that by viewing our world through a different lens, we can learn to see it differently. Kant explains:

Hitherto, it has been assumed that all our knowledge must conform to objects. But all attempts to extend our knowledge of objects by establishing something in regard to them *a priori*, by means of concepts, have, on this assumption, ended in failure. We must therefore make trial whether we may not have more success in the tasks of metaphysics, if we suppose that the objects must conform to our knowledge. ... We should then be proceeding precisely on the lines of Copernicus' primary hypothesis. Failing of satisfactory progress in explaining the movement of the heavenly bodies on the supposition that they all revolved round the spectator, he tried whether he might not have better success if he made the spectator to revolve and the stars to remain at rest. A similar experiment can be tried in metaphysics, as regards the intuition of objects. (Kant, 1787/1929: 22)

To the extent that the focus of empirical research is on describing reality as it exists, current research methodologies assume that all our knowledge about social structures will conform to those existing social structures. I suggest that, to the extent that current research builds *a priori* on existing material evidence, social structures, and linguistic practices it has not succeeded in generating the kinds of emancipatory social change that critical and liberal democratic theorists seek. We must therefore make trial whether we may not have more success in the tasks of social construction (and linguistic de-/reconstruction) if we suppose that the objects must conform to our democratically-negotiated wishes. This is, I suggest, not novel; it is consistent with the democratic, emancipatory goals of pragmatism and of many of the theorists I have already discussed. A similar experiment to those of Kant and Copernicus can be tried, I claim, within educational research, as regards the construction of meaning. The thought experiment that I describe in the following two chapters investigates one possible structure which would promote the social construction of language and knowledge within future societies.

Reflection. I shied away from making this claim because it seems so grand. It is not. I am not lining myself up in a sequence that begins with Copernicus and passes through Kant and many others through to me. My claim is based on the work of many others and stands tall only because it is made modestly in the midst of a swirling postmodern dance (Smith, 1997) and of the unruly knowledge that surrounds us now (Stronach and Maclure, 1997). Yet I recognise too, that the great men of the literature were also not writing in isolation: they were surrounded

in their times by discussion of the issues that they later synthesised and articulated in profound ways. The need in our times is, I suggest, not the need to create monolithic new works, but rather to work with the knowledge we have already in ways that will lead to greater emancipation. We do not need "great men" any more, we need more collective and collaborative communities so that the knowledge we generate is sustainable and emancipatory and becomes agreed and understood, and so that we learn to live together, respecting the complexity of social and cultural values that is our heritage. No longer is the individual voice needed, rather we need to learn to talk and work across differences and build communities where we do not silence the individual voice which is different from ours.

My suggestion is that we need to make a Copernican turn, or change the waters so that we might begin to talk more pragmatically, more creatively, about how to envisage a more just world. The shift I am suggesting is, with Scheurich (1997), a postrealist philosophical shift.

My argument is that in order to move forward through tangles of educational theory and practical problems that teachers face, it is necessary to view realism and the status of individual knowledge of reality as socially constructed and constantly emerging within communities and networks. This is well known but the following corollary is less well understood: in order to shape the kinds of community and network we would wish, we need to research the consequences of our collaborative actions and, within education, we need to research the implications of the hidden curriculum and seek, collectively, ways of addressing the factors that perpetuate the social and material inequities of our society: this kind of research, which investigates the emergence of knowledge in practice, cannot reside in the high ground of academic theorising, but neither can it ignore that space. Instead, this kind of research resides in praxis. I argue that all theory is data within praxis, and that it is within praxis that new theory emerges.

Although this kind of research is closely related to participant action research, I want to avoid making a simple connection: whereas participant action research commonly lasts for the duration of the funding, the form of research I envisage would need to be more enduring, and the activities are perhaps more closely integrated into routine work.

The revolution I promote is that, instead of viewing the teacher practitioner, or the classroom, as the subject of research in that her/his actions are subject to critique and analysis, and her/his own research efforts within some form of practitioner research are seen as generating only local knowledge, we move the focus altogether away from the individual practitioner (whether researcher or policy maker or teacher) and focus instead, collectively, on the issues which are agreed to be *substantive* (above: 53) and to work toward imagining *possible futures* where *emerging objects* come to be shaped in emancipatory ways. This revolution would shift the focus of research toward collective interpretation of localised social practices in the interests of pragmatic understandings of research processes. The desire is to investigate the criteria we choose to value (for example, truth and individual rights, rather than relationships and collective responsibilities), and to wonder about the effects of these choices. The desire is to find ways of transcending the notion that there can be any form of universal criterion, while simultaneously recognising the need for criteria that are widely agreed.

Let us suppose that what the times require is not a new conceptual scheme and an accompanying argument from enfranchising one or the other of the theoretically posited polar opposites ... but rather a recognition that the posited polar opposites rest on a bogus dichotomy that is created by the requirement of theory to lay out criteria of justification in advance of the specific practices to which the criteria might apply. (Schrag, 1997: 103)

Schrag uses "theory" in this quotation in much the same way as I refer to the theoretical high ground. It is when this high ground space sets rules and requires the swampland to abide by them (as in applying research findings, or matching their research endeavours to the existing parameters of some methodological paradigm) that teachers are sometimes disenfranchised. New, emerging, location-specific criteria are required and need to be emerging, constantly, in each new setting.

Traditional criteria cannot be jettisoned in some form of 'anything goes' relativism. But this is not a serious threat, and never has been within the postmodern theory I have read (despite what positivists and extreme realists might claim). Post-structural theory focuses on language; it is not the lens to use when explaining the material phenomena we experience. Other lenses are also needed, other criteria of justification are needed.

My ploy in working toward a post-realist research methodology of which teachers might be part is to name three phenomena which, although they bear family resemblances to phenomena commonly discussed in the literature, I shall create afresh. Each features a praxitioner who is different in subtle ways from a practitioner: the praxitioner as teacher who is constructed through discourse, the praxitioner as researcher who is emerging in and through action, and the praxitioner in community who is sustained through what Schrag (1997: 109) refers to as "communicative praxis".

Schrag writes in the paragraph following the one quoted above:

Against the backdrop of these suppositions, one would do well to recommend a shift from theory to praxis, from antecedent rule-governed criteria to context-informed criteria, to an either/or that no longer stands in wait of a theory to swoop down from on high but instead is firmly ensconced within the everyday communicative practices where life's decisions take place. (Ibid: 104)

In his thought experiment into the *self in community*, Schrag suggests that we have much to learn from the pragmatic philosophy of William James (1842-1910), in particular his approach to meaning-making and the function of options. James argues that moral issues in relation to *genuine options*⁴⁰ require decisions to be based on pragmatic considerations rather than theoretical demonstrations.

I advocate a shift toward collective praxis in teacher education in which knowledge is constructed in praxis, in contexts where learning, teaching, researching, and policy making lose their fine distinctions and become as one, with each participant acting as an individual (with particular responsibilities) working within a community where genuine options exist for each player. How this might happen is the focus of the next two chapters.

⁴⁰ Gloss on James' genuine options

Clarifying the semantics of *option*, James, in *The Will to Believe*, distinguishes three sorts - living or dead, forced or avoidable, and momentous or trivial. An option is *genuine* for James only when it is at once, living, forced, and momentous. (Schrag, 1997: 104)

Chapter 5 Toward collective research

Introduction: Transcending (not jettisoning) individualism		213
Section 5.1	Thought experiments and ongoing conversations	215
•	Exhibit 5.1.1 Diagram of interpretive and pragmatic research in unachievable equilibrium	215
Thought experiments		217
Ongoing conversation		223
•	Exhibit 5.1.2 Serious gossip (Mary Leach)	224
•	Exhibit 5.1.3 Knight Abowitz: Pragmatist analyses of resistance	226
Section 5.2 Wittgenstein's methods		231
Ce	Conversational methods	
Section 5.3	Toward collective praxis: An emerging discourse	235

While I applaud ... efforts to develop postrealist approaches to research, it needs to be understood that the development of a postrealist perspective will require a much greater,

more extensive philosophical shift,
particularly in our basic assumptions
about the ways research is conceived and practised.

(Scheurich 1997: 162)

One promising area that warrants further research is that of self-study.

(Kane, Sandretto, & Heath, 2002: 204)

Introduction: Toward collectivity

Within this chapter I widen the discussion by seeking ways to transcending (but not jettison) individualism. The tools I call upon move the discussion of learning and knowledge construction away a focus on individual constructivism towards the notion of *collective knowledge construction*. I seek ways of understanding and fostering the potential for people to work together: I seek to find fresh ways of knowing, fresh ways of acting, fresh ways of addressing wicked problems (above, 22), fresh ways of understanding quasi-objects (above, 145), and therefore, fresh ways of being, both collectively and individually.

I promote the *thought experiment* as a little-recognised tool in educational research and suggest that further investigation of this, and other pragmatic and philosophical approaches, may open up fresh ways to involve teachers and learners as partners in addressing the educational issues of our times. My focus is on thinking, experimentally, about how a diverse group of researchers and other educational practitioners might address key questions (perhaps those raised above, or perhaps others) as a part of a collective research programme. My strategy is to investigate the tools that might make such a dream possible. By investigating these pragmatic tools, I find that it is then possible to imagine how different futures might emerge from within the constraints of current structures.

The chapter begins with a discussion of *thought experiments* and *ongoing conversations*, as tools within a pragmatic methodology: these tools suggest it may be possible to transcend interpretive approaches to research so that findings of such approaches are seen by teachers to be data which might inform their practice, rather than understandings which they, as subservient consumers of educational theory and research, need to apply in their classrooms.

In the second section I revisit the work of Wittgenstein, this time focusing on the way in which his writing might inform collective philosophical methodologies and pedagogies. These approaches are not lauded as novel. The shifts in praxis that are proposed within this thesis are little more than an endorsement of many existing educational practices; they are not likely to shift the educational system any nearer to some naïvely imagined Utopian state where all problems might be solved if only we could find the right formula; I imply, on the contrary, that the strength of a collective relates to its ability to attract, seek out,

enjoy, and live in the midst of *dissensus* and *paralog*ical argument*³⁹ where various voices of *strategy* and *irony* come into play alongside that of *commonsense*, and where quality may be judged in terms of *catalytic* and other disruptive forms of *validity*.

Finally, I conclude this chapter with a review of some key points from the thesis as a whole, but this time, the focus is on collective entities, rather than individual selves. This lays the way open, in the last chapter (which should be read not as a conclusion but rather as an opening, or a beginning) to investigate possible ways forward: I report on, and wonder about the possible understandings that emerge from a brief collective investigation carried out with practising teachers.

The final chapter is a description of an attempt to bring teachers together into as coconstructors of educational theory. The challenge for teacher education is to support teachers in their central role as educational leaders within our communities: it is this role, effected mainly in their work with the young, and in association with parents, which raises fresh hope that we might continue to construct healthy futures.

⁴¹ Gloss on paralogy and dissensus

The term paralogy emerges from Lyotard's observations that:

a new postmodern paradigm is coming into being, one that emphasises unpredicatability, uncertainty, catastrophe ..., chaos, and most of all, paralogy, or dissensus. (Lechte, 1994: 248)

The use Lyotard (1984) makes of the term *paralogy* does not correspond neatly to NSOED's definitions: NSOED does not define *parology*; its defines *paralogical* as "involving or characterised by false reasoning; illogical; unreasonable"; the use Lyotard makes of paralogy is more correctly understood by linking NSOED's *para-* to *logical*, where *para-* has the sense of being "beyond or distinct from, but analogous and parallel to", thus paralogical would connote being distinct from but analogous to the logical; *logical* pertains to formal or logical argument, thus *paralogical* pertains to arguments that are distinct from, yet analogous and parallel to, formal or logical argument. Logical arguments are to realism as Paralogical Conversations are to Pragmatism. Thus, *paralogical conversations* are conversations where different ideas and opinions are deliberately sought in order that each participant might gain greater insight into the issues under consideration, and so that the group as a whole might notice where their understandings are in accord, and where they differ.

Dissensus challenges the existing rules of the game. Paralogy becomes impossible when recognition is withheld and legitimacy denied for new moves in the game. Silencing, or eliminating a player from the game is the equivalent of a terrorist act. (Ibid: 248)

The paralogical runs alongside and complements the logical; the former cannot eliminate the latter (to attempt to eliminate the rational would be to attempt to silence it, which (apart from being nonsensical) would be an act of terrorism). This understanding of paralogy provides, perpetually, scope for voices that are at variance with dominant rules of argumentation and validation.

Section 5.1 Thought experiments and ongoing conversations

Toward philosophical methods: transcending interpretive research

Transcend, as I use the term, means to build on top of, by seeking to incorporate those aspects that I/we choose to retain, while at the same time addressing those assumptions and emerging problems which are an inevitable part of any paradigm or world view. In seeking to transcend interpretive research, I join researchers who recognise that no story is a whole story, and I bypass the notion that the undermining of modern ideals leads to some form of rampant relativism, or to what Lather (1992) refers to as post-paradigmatic diaspora.

My strategy, as introduced in chapter 1, is to represent certain tensions as infinite loops where debate alternates between distinct world views, each of which seems coherent in its own right, but each of which can be (and very properly is) soundly critiqued by and dependent on the other. In this chapter I further develop the use of an infinite (or Möbius) loop (∞) to represent the concept of unachievable equilibrium within each of a number of paired oppositions, the first being the tension between interpretive and pragmatic approaches to research. The symbol (∞) is intended to connote *transcendence* so that either side transcends the other, and so that the viewer can be thought of as seeing both perspectives from outside (as in Hofstadter's illustration of Escher's drawing hands (above: 80), or as a thinker who alternates between left and right loops but who can comfortably work in either territory. *Unachievable equilibrium* refers to a state of being, or a way of living among perpetual and dynamic interactions; differences between the component loops are not problems to be solved in some Utopian future where a new theory will overcome old difficulties: differences of viewpoint between component loops (for example those in exhibit 5.1.1) represent a strength within the perpetual, adaptive reality of a self-organising system, a system which constantly responds to the fresh, unpredictable challenges of the worlds around it.

Exhibit 5.1.1 Diagram of interpretive and pragmatic research in unachievable equilibrium

Interpretive research



Pragmatic research

In one sense, when using this symbol, I move beyond dualisms but in another I embrace them as analytical tools. This distinction is between a static, either/or dualism which consolidates around and perpetuates a power differential, and a dynamic both/and dualism which constantly undermines the distinction it has created. The use of dualisms to distinguish difference is a feature of much analytical work: I use the symbol of an infinite (or Möbius) loop (∞) to indicate both the tension that comes from simultaneously accepting a distinction and rejecting a dualism, and the resistance that arises between the component parts. To eliminate dualisms from investigations would be as useful as removing the tension from the springs of a trampoline.

The postrealist philosophical shift (Scheurich, 1997: 162) that I promote is one that increases the attention we pay to synthetic as opposed to analytic⁴² forms of meaning making (Lechte, 2003). This is symbolised, within this thesis, by the contrast between the position taken by Mea-nui (representing a pragmatic philosophical approach which is both post-positivist and post-empiricist, and pre-positivist and pre-empiricist (Cherryholmes, 1999: 4)) and the positions taken by Ernest, Hélène, and Karl (representing some combination of those studies which base their methodologies on empirical understandings of the physical, social, and/or linguistic worlds as they are understood empirically and analysed interpretively). I find value in teasing out distinctions between what I have referred to in exhibit 5.1.1 as interpretive and pragmatic research, not because they are in conflict, or even clearly separate from each other, but because to look at research from these contrasting perspectives allows me to argue that it is important to pay more attention

⁴² Gloss on analytic and synthetic

An analytic whole, or totality, is one already present in an ideal form and can be examined as such. ... A synthetic whole, by contrast, is one that is essentially open and always available to accept new elements. (Lechte, 2003: 19)

These classifications are yet another example of what I am referring to as a tangled hierarchy where the two dimesions cannot be separated; however, unlike W. V. O. Quine, who argues, therefore that the concepts should be abandoned (described in Lechte, 2003: 21), I see value in the distinction, as in all tangled hierarchies.

In this thesis, I investigate ways of incorporating synthetic, rhizomic approaches to knowledge construction while not denying the importance of more analytic, tree-like forms of investigation. A synthetic approach to knowledge construction implies that fresh threads of meaning are constantly being woven into the existing findings of more analytical approaches, resulting perhaps in dramatic alterations.

In the final afterword of this thesis (below: 289), I point to the possibility that this thesis contains some structural features which align it with a yet-to-evolve rhizomic form of collective knowledge construction.

to the possible role of pragmatic, philosophic forms of research within ongoing teacher education. I suggest also, by association, that all forms of teaching and learning could benefit (at this time where constrained forms of pragmatism are brought into play to monitor the progress upon paid workers and unpaid learners alike) from a celebration of creative forms of strategic and ironic pragmatism.

I set out, now, to locate *thought experiments* and *ongoing conversations* as suitable tools for use within pragmatic research.

Thought experiments

A thought experiment is a pragmatic tool that enables insights into ways in which the future might be shaped by our actions. It is substantively different from truth claims, Ernest notes, because there is no attempt to describe causality, or to make inferential predictions; there is no attempt to describe a correspondence to the current world: it is more closely related to the process of planning and experiment than to the process of claiming particular findings. It is substantively different from an interpretive claim, Hélène notes, because it does not discuss interpretations of empirical observations, in relation to the flow of power, the social construction of our selves, or any other way of reading the phenomena we speak about; it does not stake its claim in the internal coherence (or impossibility thereof, in the case of some postmodern, experimental writing) of the arguments discussed. And, mutters Karl, it is no more use as a tool of social change than either truth claims or interpretive claims. Mea-nui, with her/his insight into the ways that philosophical shifts might influence future praxis is not so sure. She/he believes this strategy (a thought experiment) might prove to be very important, particularly if it can be used in a way that might give more voice to people who do not profess to be educationalists.

A thought experiment has been used as a technique by a number of the philosophers who have influenced my thinking*⁴³.

thought experiment, a technique for testing a hypothesis by imagining a situation and what would be said about it. This technique is often used by philosophers to argue for (or against) a hypothesis about the meaning or applicability of a concept. For example, Locke imagined a switch of minds between a prince and a cobbler as a way to argue that personal identity is based on continuity of memory, not continuity of the body. (Audi 1995: 802)

The strategy has been used by others, earlier: Wittgenstein, for example, uses the technique quite routinely in his writing. Although I have not seen his work named as involving thought experiments, per se, I expect I am not the first to notice that Wittgenstein⁴⁴ tends to invite the reader to undertake thought experiments, or to consider the impact of various imagined happenings. The following example (next page) appeals because of its links to earlier writing within this thesis, as I shall show.

⁴³ Gloss on thought experiments as a tool within pragmatic philosophy

Putnam's Twin Earth thought experiment "has generated an enormous literature" (Luntley, 1999: 289)

I first met the notion of *thought experiments* when I found some of this literature: Umberto Eco's *On Truth, A Fiction* (Eco, 1990: chapter 15) is a text where the protagonist meets CSP (named for Charles Sanders Peirce*). CSP explains how it is possible for him to interpret even though he does not have a mind: he (sic) is, after all, a computer which has been programmed to recall information from various encyclopaediac memory banks. I have pored over this text as I struggled to understand different ways of conceptualising meaning; Eco led me to Putnam (1975), via chapter 2 of Rorty (1979). The whole area fascinated me because these authors were the theorists whose work I had already been reading in relation to pragmatism.

The term, *thought experiment*, has become a very useful way of describing much of my strategic thinking, by which I mean the pragmatic kind of thinking I use when attempting to solve a problem, whether it be mathematical or social.

* Charles Sanders Peirce is "the American philosopher, scientist, and mathematician" who was "the founder of the philosophical movement called pragmatism." (Audi, 1995: 565)

44 Gloss on Wittgenstein and thought experiments

The following quotation, from the start of chapter 2 of Sorensen's (1992) *Thought experiments*, appeals not only because of its ironic twist, but because it reminds me that so much of the traditional content of mathematics teaching is made up of thought experiments.

Schoolmaster: Suppose x is the number of sheep in the problem.

Pupil: But, Sir, suppose x is not the number of sheep. (I asked Prof. Wittgenstein was this not a profound philosophical joke, and he said it was.) (John E. Littlewood, quoted in Sorrensen, 1992: 21)

Could it be that thought experiments are so common that they may pass us by unnoticed and unchallenged? This could be an instance of a situation where ...

we fail to be struck by what, once seen, is most striking and powerful. (Wittgenstein, 1953: §129)

If I were sometime to see quite new surroundings from my window instead of the long familiar ones, if things, humans and animals were to behave as they never did before, then I should say something like "I have gone mad"; but that would merely be an expression of giving up the attempt to know my way about. And the same thing might befall me in mathematics. It might e.g. seem as if I kept making mistakes in calculating, so that no answer seemed reliable to me.

But the important thing about this to me is that there isn't any sharp line between such a condition and a normal one. (Wittgenstein, 1967: §393)

Wittgenstein thus demonstrates the power of a thought experiment. This small invitation to imagine new surroundings outside a window brings together many of the threads that I am currently weaving into this thesis. It reminds me of Wittgenstein's way of inviting the reader to become engaged in the ideas he is discussing; it alerts me to all those other conversations which touch on the idea that to be non-conventional is to be mad (and it reminds me of *changing the waters* (above: 45), and of *tangled hierarchies* (above: 80)); it reminds me of a philosophy where, to know is to know one's way around, or to know how to act; it hints at the hopelessness that can go along with giving up on knowing one's way around (of being seen to be mad or deficient within the current language game); and it ends up by reminding us that there is no sharp distinction between these hints of 'madness' and the normal condition.

If we see knowing not as having an essence, to be described by scientists and philosophers, but rather as a right, by current standards, to believe, then we are well on the way to seeing conversation as the ultimate context within which knowledge is to be understood. (Rorty, 1980, quoted in Shotter, 1993)

Further, it suits my purposes to call upon this particular example of a *thought experiment* because it contributes to other discourses that feed into my argument. Wittgenstein, in these items, shows that if we view knowledge, not as a description of some theorised *essences*, but rather as the right, within a particular conversation or culture, to believe certain things and to act in certain ways without being perceived as mad, then we see that conversation (including action, and the ways we talk about particular forms of behaviour) is the ultimate context within which knowledge (sanity) is understood. To be seen to be sane is to adapt to, and live within, the forms of knowledge which are accepted around us: Foucault (1977, 1979) has shown that what is regarded as normal and sane in one era can be deviant and sick in another (in relation to imprisonment and to sexuality); similarly, McWilliam (2000) illustrates how the mores of teaching change over time:

corporal punishment was [when my mother and uncles were teachers] the *right thing* to do in certain circumstances, according to the discursive rules of good pedagogy, but it is the *wrong thing* now. (McWIlliam, 2000: 3)

I have demonstrated, therefore, that a *thought experiment* is a tool which an author might use to tempt a reader to imagine the consequences of an situation which is generated creatively. A *thought experiment* is a philosophical tool which can be used to foster discussion and imagination.

Thought experiments within teaching practice

The notion of a thought experiment is more closely related to the kind of work I do when I plan my teaching, or when I make decisions within my teaching, than is any other hypothesis-testing strategy I have encountered. To undertake a thought experiment is to think pragmatically, about the possible consequences of one's actions. When I plan a lesson, I hypothesise about the things I might do, and their likely consequences in practice, and I make choices, pragmatically, based on the outcomes of my thought experiments. Within class, when confronted with "Can I go to the toilet, Miss?", I hypothesise about the likely consequences of various responses (above: 101) and make a choice, based on my experience and my commonsense theories-in-action.

As a teacher then, I associate this research strategy with my everyday practice, yet I did not read about thought experiments in current texts on research methodology. Current approaches to research in the social sciences, at least as described in standard research methods texts for postgraduate courses, centre around "qualitative and quantitative approaches" (Neuman, 1997), positivist, interpretive, and critical approaches (ibid: chapter 4), or normative, interpretive and critical paradigms (Cohen *et al.*, 2000). Each of these approaches, methodologies or paradigms forms part, but only a part, of a larger human effort which I label, in line with Dewey (1938), pragmatic. The form of knowledge that I am promoting is experiential, it occurs *in situ*, and it is interactional.

The statement that individuals live in a world means, in the concrete, that they live in a series of situations ... The conceptions of *situation* and *interaction* are inseparable from each other. An experience is always what it is because of a transaction that is taking place between an individual and what, at the time, constitutes his [or her] environment ... (Dewey, 1938: 43)

The forms of research that are described in texts such as Neuman (1997), and Cohen *et al* (2000), are attuned to only some aspects of this kind of situated knowledge. I argue that a

teacher working in a classroom is an astute observer who theorises and acts on that theory in ways that cannot be captured by any observer. When I am in the classroom and I see a person who is puzzled or distracted, I do not have a single theory to call upon which tells me how to act in that situation. Instead I call upon my experience which includes my understandings of theory, but also my "practical competency and professional artistry" (Schön 1983: vii). Being that of a practitioner, my theorising is not pure in the sense of being linked to one particular research paradigm of the kind discussed within research methods text books; it is much more eclectic, situated and pragmatic.

The *thought experiment* is a methodology in tune with the responsibility of a teacher to act. Other research practices such as critiquing the literature, surveying opinion, developing grounded theory or analysing discursive practices, provide the data for thinking and planning; these forms of data can challenge assumptions and foster creative ways of dealing with novel situations while not necessarily eliminating established practices. The process of lesson planning does not necessarily capture the theoretical rigour of a thought experiment, but I argue that the processes are similar. At times, however, when the stakes are high, and when there are different possible activities available, I-as-teacher use thought experiments in order to explore the possibility of taking novel approaches to problems or barriers, not least of which is the problem of perceiving those that are different from self as mad. It is this pragmatic dimension of the thought experiment that I am championing.

Thought experiments might be dismissed as a creative madness, not worthy of being named as a research technique, yet they are the very substance of the creativity which allows divergent approaches to research to be undertaken: stories abound of scientists who thought differently from their peers, were laughed at, and later were lauded. Perhaps more attention could be paid to ways in which creativity and difference might be valued. I champion the notion of a thought experiment and wonder about how *collective thought* experiments might emerge within some future investigations into social change.

A collective thought experiment

A *collective thought experiment* would take place if a collective (a group of people with a shared interest in fostering social change around a particular issue) worked together over a period of time to bring some *emerging-object* into being. The notion of a *collective thought experiment* is more helpful to me than more concrete realisations of this kind of

concept such as a Think-Tank (TT), or a Participatory Action Research project (PAR): both these entities bring people with different interests, skills and roles together in the interests of effecting social change, and/or envisaging the ways things might be different in the future, and/or implementing a particular policy which would foster/force social change. Unlike TT or PAR, the term *collective thought experiment* suggests that the scope of the thinking is not restricted by time or location, resources or resistance: a collective thought experiment is a discourse which, if it grows, creates itself as an emerging-object. Agencies such as Greenpeace, Amnesty International, and on a smaller scale, the EQUALs network (above, gloss 33, page 172), and movements such as Marxism and the feminist movement are examples of organisations or structures which have emerged out of what I am referring to as *collective thought experiments*.

The passion that sits behind this thesis cries out: if we care enough about our young people then we will create a discourse that will address the factors that perpetuate the problems: we will create collective thought experiments that constantly bring the harsh reality of the lives of people who end up in prison or dead (through suicide or abuse) to the fore, and face us constantly with the pragmatic question: what do we do about this reality?

A collective, viewed as a *self-organising system*⁴⁵, and also viewed as a site of an emerging political discourse, is therefore, something that is more enduring than any particular project: the network of participants is not closed by geographical boundaries and there is no point in the future where the project will end: it may change in structure and it may fade so as to become little known, but these effects are better described in terms of the life of an organism which has an interest in its own preservation than in terms of an externally-funded project.

⁴⁵ Gloss on collectives as self-organising systems

A collective obeys the principles of a self-organising system (above: 24): there is interaction among neighbours (members of the collective), patterns related to the emerging-object are investigated and recognised, there are feedback mechanisms through which the members of the collective analyse the consequences of their actions to date, and consider what actions to take from here, and most importantly, the direction of the collective emerges rather than being guided by some pre-determined ideology. This evolutionary aspect of self-organising systems locates them as distinct from organisations which are brought together and driven by bodies or policies external to the group as a whole: where external dominance takes control the system loses its internal coherence - let us be wary of state control.

A collective does not exist until there is a sufficient accumulation of "relatively stupid" (Johnson, 2001, above: 23) but related component parts for patterns to emerge. Internal communication is central to *self-organising systems*. The energy of the system is sustained through its *feedback mechanisms* among component parts. Under this model, the challenge within any system (organism or organisation) is to keep the conversation going, to create a discourse, "to describe lots and lots of things in new ways, until you have created a pattern of linguistic behaviour which will tempt the rising generation to adopt it ..." (Rorty, 1989, above: 45).

Ongoing conversation

Conversation, we are told by Rorty (in Shotter, 1993, above: 219) is the ultimate context in which knowledge can be understood. If knowing is the right to believe according to current standards, then the importance of conversation is paramount. It is in this sense that Parker (1997) suggests that therapy, not argument is needed when our certainty is in doubt (above: 198).

I suggest that the more general term *conversation* (not argument or therapy, but a term that includes elements of both) is a key ingredient in a recipe for overcoming the misery of madness-through-isolation within the human condition, and wonder about the ways in which schooling systems give our young people access to conversation of various kinds. The insights which follow are snippets from various conversations; they are not ordered in a way that suggests a rational argument because conversations are not like that: lots of diverse ideas occur, no conclusion is necessarily drawn, but the participants are changed (how? in what ways?) and the collective understandings are changed (but subtly, in ways we might not recognise). Within a conversation, ideas flow somewhat randomly from point to point so that each participant has some control (each is free to raise points) and no control (none can dominate and control the direction of the discussion). In this idealised notion of conversation (perhaps a middle class notion?) people learn and culture develops, ideas are hatched and opinions shaped. In the pages that follow I chat over various aspects of conversation in a way that seeks to recall the flow of a conversation; for ease of reading, I signal each fresh move or turn with an italic subheading that is embedded in the paragraph. In conversation new topics commonly emerge from preceding ones, but not

necessarily, and sometimes difficult topics are left, to be picked up at a later date, if the participants choose to revisit them.

Serious gossip Mary Leach's (1995) work on gossip points out the importance of conversation (in the form of gossip) in shaping theory within day-to-day experience. Exhibit 5.1.2 opens up the possibility of conversations surrounding the notion of gossip; I invite readers to take part in exploring the possibility that *serious gossip* might become part of serious, ongoing collective conversations and research.

Exhibit 5.1.2 Serious gossip (Mary Leach)

Leach's discussion of serious gossip alerts me to the idea that ordinary conversations are theoretical.

I am using the term serious gossip here to describe conversations which take place in small groupings, usually at ease, in relations of trust[,] and which I believe provide a resource for the practice of a number of educational activities: play, moral investigation, self-reflection, wonder, self-expression and discovery. Serious gossip frequently functions as an embodying of solidarity, promoting new formulations of ideas and circulation of information. (Leach 1995: 127)

Leach distinguishes 'serious gossip' from other forms that have been judged as reprehensible: "gossip as a breach of confidence, gossip the speaker knows to be false, and unduly invasive gossip." (Ibid: 128)

The stuff of scandal which serves to damage competitors or enemies, gratify envy or rage by diminishing the other, or which generates disparaging or discernible representation in hopes of *benefiting* one's own position obviously invites our moral condemnations. (Ibid: 128)

Clearly, gossip, thus constructed opens up space for collective meaning-making:

The latitude of free play in which parties engage can release the passionate substructures of thought *and* feeling in a space safe to wonder about or speculate on diverse forms of evidence about ourselves or other's humanness. (Ibid: 134)

Further, this collective meaning-making provides a basis for the examination of differences:

[A]s a practice, gossiping shows us an alternative space in which to find the actual *conditions of possibility* for both the creation and examination of difference ... we also observe the aim of a practice which is to help unburden: not to load life with the weight of "higher" values, but to create new values which are those *of* life ... [it] inhabits the borderlands of socially sanctioned oral communication ... [it] *infuses* the details of living with meaning." (Ibid: 134-5)

I link this to the notion that within *self-organising systems*, the relatively innocent actions of a multitude of participants create the emerging patterns, I see a connection with political activity, and I see ways in which accusations of madness and blame are laid upon those who are silenced (recall the notion of "suburban neurosis" of isolated women in the 1970s, the prison statistics of today's disenfranchised men and women, and the suicide and self-mutilation rates of our current youth). It could be argued that gossip became an important tool in changing the discourses that surrounded assumptions about women's place in society. I argue that, similarly, talk from within, talk which involves the disenfranchised in theorising is a fundamental component of social change. This grassroots theorising leads me to want to involve teachers more in serious, theoretical gossip about teaching. This is much more important, and much less patronising, than any top-down model of professional development.

Perhaps serious gossip, of the sort Leach constructs, might let conversations straddle divisions between academic discourses and the practical theorising of day-to-day experience. It could be that serious gossip should find a place in my classroom, a place where the hurts and worries of the kids I teach might get discussed in ways that straddle the barriers of age and power and status and authority that separate teacher from student. I, personally, value *serious gossip* deeply as a form of communication: to gossip with someone who sees the world quite differently from myself, about some issue of shared concern, gives an opportunity to gain fresh perspectives, to test my own ideas, and to create collective knowledge (even if the collective is only two people, each conversation "*infuses* the details of living with meaning" (Leach, 1995, above: 224)).

Interesting conversations This reminds me of Rorty's discussion of interesting philosophy (exhibit 1.2.1, above: 45). I can envisage interesting conversations where the negative connotations that surround the word gossip, as trivial, for example, are paraded: yet this parading would be a form of resistance because gossip is very threatening to those structures which rely on secrecy to retain their power. I recall when, as an employee of the state (a civil servant), following the educational reforms of 1989, I was required not to talk freely with my previous colleagues in other institutions, encouraged not to associate with them, in fact. Later when it came to negotiating salary, I was required to assure my employers that I would not divulge my salary to my colleagues within the office. Gossip was clearly being suppressed in each case, for highly manipulative, political ends.

Half-formed new vocabularies The half-formed new vocabularies that Rorty identifies (in exhibit 1.2.1 (above: 45)) could, therefore, be sitting within our existing language as

sanctioned, or not-quite-proper, vocabularies (these vocabularies could be sitting with conversations that, like gossip, are undervalued). It could be that these vocabularies might emerge from resistances, because gossip creates theory in practice: my colleagues (above, the civil servants) and I, for example, talked about the silences that were being demanded, about salary and the like, and the impositions being laid upon us: our talking was clearly a site where we tested our emerging understandings of the structures that were being constructed around us, and of our options and possible responses, and the effects of these. Gossip could be penalised, by those in authority, because it is a form of resistance to existing and emerging forms of domination.

Resistance is a form of communication When we are silenced, and organised into doing things which are not of interest to us, or we see that we are being required to do things that we do not think are in our best interests, we tend to resist.

I know from experience of working with teachers in workshop settings, that it is important that they see the relevance of the activities we are undertaking, and that there are opportunities for the participants to relate theory to the practical experiences of their real working lives, otherwise they will tend to become like resistant adolescents who are bored and disenchanted by school. Yes, I do suggest that teachers, *en masse* and individually, can also resist if they are treated like a herd and expected to comply with the instructions of others: resistance is a form of communication that is not restricted to the young; resistance is a strategic-ironic life-skill that is fostered by some aspects of schooling.

Exhibit 5.1.3 Knight Abowitz: Pragmatist analyses of resistance

Knight Abowitz' discussion of resistance alerts me to the idea that resistance can be read in various ways:

The scholarship of resistance calls us to examine oppositional acts of students in school settings as moral and political expressions of oppression. Resistance theorising over the past several decades has not, however, adequately explored the idea that resistance is communication: that is, a means of signalling and constructing new meanings, and of building a discourse around particular problems of exclusion or inequality. (Knight Abowitz, 2000: 877)

Whereas earlier readings of resistance might have labelled the person who resisted as (a) deviant or naughty and needing to be taught to conform, or (b) as oppressed by structural constraints within the system, Knight Abowitz alerts us to a third reading where resistance is a form of communication that invites response. Resistance is a form of communication that appears when particular problems of

exclusion or inequity occur. Rather than blaming (a) the individual or (b) the system, as traditional analyses have, this third reading of resistance suggests that the site for dealing with the resistance lies in the present, the here and now: the site for analysing and understanding and addressing and altering inequity or exclusion is the site of its occurrence: the site for this action is in my classroom and in my conversations with my colleagues. The need is for us all to open up, within classrooms, fresh conversations that oppose and expose exclusion and inequality: the need is for students and teachers alike to be participants in conversations (or recipients of communications).

To be a recipient of a communication is to have an enlarged and changed experience. One shares in what another has thought and felt and in so far, meagrely or amply, has his [or her] own attitude modified. Nor is the one who communicates left unaffected. (*Democracy and Education* p5) ... The act of opposition produces growth and changes in the current situation among all involved through inquiry and communication. (Ibid: 900)

This is far too important an observation to remain buried in an exhibit: the notion that resistance is a form of communication needs to surface again, within discussions among teachers and students about praxis. But this question is too far-reaching to bring it, yet, into the main text. It is too scary to address this issue face on. I do not have the supports around me, I do not have the fellow travellers who understand this issue in these terms, and I cannot cope with the enormity of this question alone. Therefore, I need to address the question of how to gather together an Expotition⁴⁶ (a collective venture) into this alien, scary, unknown space (where we investigate this Substantive Issue together) where I try (we try) to talk differently within our classrooms: if we tread roughly we could damage our students, our schools, and ourselves.

46 Gloss on an Expotition

The word *Expotition* (Milne, 1926) provides a name for the thought experiment which has allowed this thesis to emerge. It refers to the notion that a *Company* of travellers (researchers in a very broad sense) go together (with their respective and different forms of expertise and knowledge) to investigate a new land (an emerging object) over an extended period (they take Provisions, to eat - or as researchers/teachers/students, they retain an income).

"Oh! Piglet," said Pooh excitedly, "we are going on an Expotition, all of us, with things to eat. To discover something."

"To discover what?" said Piglet anxiously. (Milne, 1926, (1994: 87))

My Expotition with Pooh, Piglet, and friends, Ernest, Hélène, Karl and other unnamed imaginaries, and my perceptions of the way real colleagues might react made up the *thought experiment* which allowed this thesis to emerge, but the experiment was real because I did talk with a myriad of real colleagues about the ideas as they were emerging, within our collective conversations, at conferences, within teaching, as part of living, with family and friends.

"To discover what?" is a key question, for the what cannot be known before the discovery. Yet the general direction of the (re)search can be defined, and the expectation is that fresh territory will be explored.

Communication, the foundation of pragmatist notions of community, involves the sharing of experience, not the sharing of certain physical traits or world-views, or metaphysical beliefs. Communities certainly can be formed from shared experiences of marginalisation, especially if oppression and exclusion have historically victimised the group. Such communities provide the networks and relations within which collective political actions might develop. However, these foundations of solidarity and sameness are not the only experiences of community, for we are members of multiple communities with amorphous, shifting boundaries. ... In the light of considerations of multiple identities – credited to postmodern theorists but acknowledged by pragmatists at the turn of the [twentieth] century – no one person belongs only to one community. (Ibid: 898-899).

Communities, then, within classrooms, and across research networks, are sites where resistance can be celebrated: communities allow matters of exclusion, oppression, and inequity to be identified, and therefore brought out into the open.

If resistance is seen as form of communication then resistance Future conversations invites conversation. Resistance is a form of communication which might alert me, as teacher, that all is not well in my classroom. As a teacher of adults, I am very sensitive to resistance, I try to seek it out before it emerges, and to gain an understanding of what causes it. I use techniques such as Brookfield's (1995) Critical Incident Questionnaire (below: 260) in order to create conversations in which students talk about their experiences as learners, and the ways in which our shared activities foster or restrict learning. Yet this is not enough for two reasons. Firstly, it is not enough because it does not work easily in the school classroom where students resist learning: some of them have no interest in analysing when they learn well because, it appears to me, they are quite convinced that they are not able to learn well; some students have been taught that lesson repeatedly over many years of schooling. Secondly, the conversations that this kind of technique raises are inward-looking conversations about learning within this particular kind of pedagogy: they fall into the trap I identified in chapter 4, where instrumental forms of reflective practice focus on the detail of classroom interaction and leave the wider social constraints untouched.

I see hurt, disillusionment and pain within my class of year twelve students who have not achieved well at school, who are disorganised and do not bring books or do homework

except under duress; I have the tools to understand their resistances, and the structures that perpetuate them. I know that life would be simpler for them and for me if I sidelined the curriculum, did not challenge their work habits, believed that they had only limited ability and just helped them to achieve as many assessment credits as possible for their year's work. Yet I see their current disillusionment as being an accumulation of various experiences in which teachers (probably very caring teachers) over many years have bowed to their behaviours and thereby perpetuated and created their ways of interacting: in order to avoid a battle there is an uneasy truce which does not address the underlying issues which relate to finding safe places where disadvantaged kids can find a secure base for their growth and their emerging activism. As a teacher, I know that this is what happens, I know I can only do my best, and I try not to make it worse for the kids by pushing them too hard. As a pragmatic researcher, I want a lot more - I want creative conversations with colleagues who share my concern about this issue of social reproduction, and I want creative conversations with my students about what is happening, and why, and how it might be changed - but these questions are too hard, there is no time, the issues are structural and systemic. I am just one individual, and so is each of them short-term, constrained pragmatic demands (from timetables and curriculum) keep our class in order - and I know that the social change that is needed is not primarily in them, or me, but in all of us.

Resistance as a form of communication, again I want to go back to the idea that teachers might resist in the way young people do. I want to turn the idea around differently and argue that I would (now) be likely to resist in exactly the same kind of way if I (at my advanced age) were treated, in a school classroom, in the way that adolescents are. If I were required to complete particular exercises without being able to relate them to my lived experiences in ways that were meaningful to me, then I would resist too.

Ongoing conversations When issues get too deep, in a conversation, they are commonly left, and may be revisited later in an ongoing conversation, when the parties have had time to think afresh about the emerging issue/object. This time allows, also, for the ideas to be explored in other networks - this is akin to hypothesis testing where an emerging idea is "put under strain" (Putnam, 1995: 71)*⁴⁷ rigorously if it is seen as being important, in a variety of contexts.

Frustrating conversations Isn't it frustrating when a conversation is dominated by one person and where you (the reader, in this case) have no opportunity to debate or question or clarify or discuss the issues that arise, where there is no opportunity to interject because the speaker holds the floor? This is not a conversation, it is a monologue. Yet, for me, this is a form of virtual conversation because I am building the structure around voices of my friends and colleagues and some of the conversations that have taken place around these issues. "Learning goes on after the event", says one of my colleagues within a recall morning where colleagues and I talked about pedagogy (chapter 6, below: 276): it is not as though a conversation is finished when we depart, she reminds me, the memory of the discussion continues to influence our thinking and learning after the event; my memories of past conversations provide voices within my internal conversations. I am frustrated when it is not possible to continue the interesting conversations from the past into consequential conversations in the future:

"You recall we were talking about Y last week, I've been wondering about this and think Z now, what do you reckon? ... Oh, and during the week, W happened, and when I was talking to A, she said M. What happened when you tried H? ... We had this theory that Q, but I wonder now whether P ... might be more helpful, so I thought I would try G with my class next week. What do you think?"

A feature of ongoing conversations is that they loop back upon themselves: when directed toward a shared investigation, this kind of looping back provides the *redundancy**⁴⁸ which is necessary within self-organising systems where the loss of some pieces of information or some components of the system do not affect its overall ability to function.

The problem with the conversation I am creating is that it keeps bringing to the surface very big issues that are far too great to be addressed here. That is the trouble with unconstrained conversation, it is ongoing, and it pulls in ideas from various other communities ("no one person belongs to only one community", Knight Abowitz reminds

Putnam reminds us that long before Popper (1959) proposed that science is characterised by its method (i.e. falisifiability), C.S. Peirce (1839-1914), the founder of the pragmatist movement (Audi, 1995: 565), emphasised that ideas will not be falsified unless we go out and actively seek falsifying experiences.⁴⁷

Ideas must be put under strain, if they are to prove their worth; Dewey and James both followed Peirce in this respect. (Putnam, 1995: 71)

⁴⁷ Gloss on "putting ideas under strain"

us (above, exhibit 5.1.2: 226)). Yet unconstrained, creative conversations do produce effects: it is as though they are the sustenance, the background, that allow decisions to be made effectively and confidently in constrained situations where action is required. My call for ongoing conversation and collective thought experiments is a call for unconstrained, creative conversations that link understandings among different cultures and communities so that we might bring fresh insights into significant issues of our times: I seek pedagogies and research strategies which foster redundant and multiple insights and explosions of creativity, to be generated and circulated at many levels and in many locations.

Section 5.2 Wittgenstein's methods

I conclude this discussion of conversation by calling upon the work of Shotter and Katz (1996) who discuss Wittgenstein's conversational strategies within the context of pedagogical work with medical interns. The methods they identify suggest how philosophical investigations might come to be seen as important, collective tools within both research and pedagogy in ongoing teacher education.

⁴⁸ Gloss on redundancy

Redundancy refers within engineering, computing, etc. to the incorporation of extra components or processes to permit continued functioning of a system in the event of a failure; it also refers, to the condition of being surplus to an organisation's staffing requirements, and the loss of job as a result of this (NSOED). The tension between the (positive, safety-conscious) need to incorporate additional components as opposed to the (negative, cost-saving) need to reduce staff in an organisation resonates. An analysis of the positive long term cost-benefits of retaining a certain level of redundancy (so that if key staff leave, others are able to compensate) could prove interesting.

Redundancy is a feature of language: Skyttner (2001) writes that redundancy is:

both necessary and desirable in human language and is one of its most typical qualities. ... Redundancy is ... potential information available for us if necessary. A language is always a compromise between basically inconsistent demands: precision and security in contrast to flexibility and efficiency. ... The more extra names for the same thing, the greater the probability that making everything clear and avoiding misunderstanding. (Skyttner: 2001: 226-227)

The celebration of redundancy is in opposition to the cold hard logic of rationalism: only when there is redundant information within a system is there freedom to choose which elements to throw out, by throwing out seemingly foundational elements it is possible to generate fresh, creative questions and approaches. Necessity, when hinge propositions (Wittgenstein, 1969: §341) are challenged, becomes the mother of invention.

Conversational methods

Wittgenstein's methods can be described as non-theoretical because of his argument that theories do not describe anything except relationships within a language game and, secondly, because a focus on theory detracts from our understanding of those fleeting moments in which the essential ethical and political struggles take place. As Wittgenstein sees it, classical theory with its need to be convincing about the nature of truth prevents us from noticing the moment-by-moment subtleties of "appearances (our voicings, as the unfold before our eyes (or, better, in our ears)" (Shotter and Katz, 1996, above: 128).

This insight, that if we focus on theory we may miss the novelty of the moment, is empowering for those who see themselves as practitioners and also to others who see themselves as theorists. The focus of learning shifts from the need to convince others of the validity (or applicability) of particular theories (although ongoing discussions about the relevance of articulated theories remains an important aspect of ongoing discourse). The focus of learning becomes the ability to know what to do next.

Wittgenstein's work was dialogical and conversational; he developed the notion of language games. He argued that

... we may not advance any kind of theory. There must not be anything hypothetical in our considerations. We must do away with all explanation, description alone must take its place. The problems are solved, not by giving new information, but by rearranging what we have always known ([Wittgenstein, 1953: §109].

Shotter and Katz (1996) discuss ways in which Wittgenstein's methods apply in the present: in everyday terms that are to do with the ways in which we use language in practice. His methods, they argue, lead us to focus on novelties, those things that go unnoticed within the present, the things we see for only fleeting moments.

If we allow ourselves to be 'struck by' these novelties, then we can go on, not to solve what had been seen as a problem, but to develop new ways forward in which the old problems become irrelevant. (Shotter & Katz, 1996: ¬1/11)

Note that non-standard notion (such as $\neg 1/11$) is explained in footnote 26, above: 128

Shotter and Katz (1996: ¬8/11) discuss four strategies that Wittgenstein uses to "remind us" of things that we already know. I summarise these strategies rather fully because of their relevance to methods of teaching which promote ongoing conversation, based on the

understanding that we are not teaching theory which needs to be recited or explained, but understanding in the sense of knowing how to act.

1. His expressions are full of invitations to think for ourselves:

```
Thus his talk is full of such expressions as "Suppose ...," "Think of ...," "Imagine ...," "It is like ...," "So one might say ...," and so on, all designed "to draw someone's attention to the fact that he [or she] is capable of imagining [something]" (1953, no.144). (Shotter & Katz, 1996, ¬8/11)
```

In this way Wittgenstein affects the reader, or has an influence on his or her way of thinking, by interrupting the spontaneous unselfconscious flow of ongoing activity and/or by showing that the person is capable of imagining something. Invitations such as these are different from truth-loaded propositions which must be either affirmed or denied.

Where, in imagining something new, a person is "now ... inclined to regard a given case differently: that is, to compare it with *this* rather than *that* set of pictures. I have changed his *way of looking at things* (1953: §144). (Ibid: ¬8/11)

2. Wittgenstein uses various forms of imagery, simile, analogy, metaphor or picture to suggest new ways of making connections that are different from those that are 'representational'; instead he calls on relational-responsive ways of thinking about meaning. To understand the entwined ways in which our language operates we are invited to look out for unnoticed distinctions and relationships that emerge when we explore the ways in which a novel analogy works (A is like B in these several ways, but A is unlike B in those ways, and ...oh ... here is something I hadn't thought of ...). Our understandings, which are our capacities to act, are extended in these ways.

To know our way about inside our own, language entwined forms of life, we require relational-responsive rather than representational meanings. (Ibid: ¬8/11)

3. The third method Shotter and Katz identify is that Wittgenstein highlights not only those things that work about our language and the ways we make meaning but also the things that do not. By highlighting the surprises, the things that do not work, he undermines a complacency, he highlights

a knitting together of details and subtleties into a great overall network of possible ways of 'going on.' (ibid: ¬8/11)

We talk, we utter words, and only later do we get a picture of their life (Wittgenstein, 1953, Part 2: page 209).

What we find out in philosophy is trivial; it does not teach us new facts, only science can do that. But the proper synopsis of these trivialities is enormously difficult, and has immense importance. Philosophy is in fact the synopsis of trivialities. (Wittgenstein, Lectures, 1930-32, quoted in Shotter and Katz, 1996: ¬1/11)

Because our language is made up of similarities as well as dissimilarities (Wittgenstein, 1953: §130) a philosophical method is that of noticing how things that have previously gone unmentioned might be understood afresh, as a synopsis of trivialities.

4. Shotter and Katz note that none of the methods can ever lead to a final, fixed account of what something 'really' means. Past meanings, or the dialogues of previous theorists in past centuries can never be stable, they will always change or be renewed in future debates and discussions.

This kind of rhetoric supports and underpins the synthesis of ideas that constitutes this thesis. The clear distinction between what philosophy can do and what science can do (recognising however that the distinction can be deconstructed, (∞)) supports an argument that reflective practice is a philosophical as opposed to empirical endeavour, and that it therefore complements more evidence based forms of research such as Participatory Action Research. The notion that the work of philosophy can be thought of as a complex collation of trivialities suggests, when applied to teaching and teacher education, that the juxtaposition of theory generated in the literature with understandings gained through experience and in conversation with students and colleagues (i.e., Brookfield's model of reflective practice, above: 164) is, indeed, a way of going forward, and knowing what to do next.

Wittgenstein's methods direct our attention away from a focus on theory and critique, they direct us toward a far more relevant form of philosophy for teachers, a philosophy that privileges the practical, one that privileges the conversational over the dialectic and argumentative. This philosophy preceded Rorty's belief that the place of philosophy is to "keep the conversation going." "I understand" need not be thought of as an indication of a particular form of cognition; instead we can think that "I understand" is an utterance or a signal that the speaker knows what to do next.

When I argue, for example, that I understand that "essential ethical and political struggles take place in fleeting moments" then I assert that knowing how to act, or understanding, and influencing the understandings of others, is always a political endeavour.

Section 5.3 Toward collective praxis: An emerging discourse

To adapt the words of Kane *et al.* (2002, above: 57): "One promising area that warrants further research is that of *collective* self-study." I suggest that there is already an emerging focus on collective learning and knowledge construction, and there is a recent focus on research funding⁴⁹ which involves teachers and students as research partners rather than subjects. The challenge now is to articulate these developments in ways that will allow further collective development while at the same time developing theory around the notions of collective research, collective pedagogy, and collective praxis.

Praxitioner research has family resemblances to participant action research, and various forms of partnership research. By calling for the emergence of praxitioner research as an entity, I am asking that we, the educational family, seek to understand how we might work together to create the kinds of knowledge about collective pedagogies, collective research practices and collective knowledge constructions as to enhance our (collective and individual) ability to react in ways that will address pressing social injustices. I say again:

⁴⁹ Gloss on recent research funding

I point to three examples where research funding in New Zealand is currently being channelled into collective development.

This initiative supports research to build knowledge about effective teaching and learning, to build practice based research capability and stronger research-practice linkages.

(http://www.minedu.govt.nz/index.cfm?layout =document&documentid=7151&data=1)

⁽¹⁾ The Centres of Innovation project (funded 2003-2006) involves six Early Childhood Centres, nationally, which have each demonstrated their effectiveness in making changes to address local interests and needs. Each of these Centres has gained funding to support the innovation, and each is contracted to work with a researcher whose responsibility is to support the innovation and to report on its evolution. The focus is the innovation, and the researcher has an active role to play as participant in and supporter of the development.

⁽²⁾ The Teaching and Learning Research Initiative (TLRI) (funded 2003-2006) has evolved from the New Zealand Government's Vote Education 2002 Budgetry Initiatives.

⁽³⁾ Research into *Discovery 1* school in Christchurch (funded 2001-2003) involved researchers from the University of Canterbury working in research partnership with teachers, parents and Board of Trustees. Funding comes from professional development and research initiatives. (Research seminar, Canterbury University,11/8/03)

My dream is that the teaching profession might become more closely linked to positive social change in a society where, by caring more deeply for community as a whole, we can treat structural barriers to individual achievement as communal concerns. (Self reference, above: 7)

My dream is not only that teachers will be better able to transform reality, but also that the other participants, the researchers, the policy makers, the students, the administrators, the parents, and the advisors might also share the same kind of vision. I seek fresh ways of viewing research, ways that are more collaborative in working across the educational community, ways that are more questioning of paradigmatic assumptions, and ways that focus attention on *substantive issues*. I seek fresh ways of viewing teaching, ways that are more collective in that they foster engagement, debate, and practical actions, practical outcomes which feed back into the curriculum. I seek fresh ways of viewing theory, ways that are more critically reflective and conscious of the philosophical shifts that have emerged in the twentieth century and upon which I have focused in this thesis. I argue that we, in the social sciences, must shift away from a notion that theory can be applied in practice and move toward an understanding that all theory (all knowledge) emerges in and from our lived practice, and that existing theory, existing understandings, existing skills and habits, form the basis of all current decision-making and activity. Far from being relativist, this argument recognises that existing theory and language describe and define our understanding of reality as we experience it: existing theory is therefore of fundamental importance, both at individual levels where theories-in-practice guide our individual actions, and at collective levels where shared understandings and decisionmaking processes guide our collective activities.

The notion that existing theory is *applied* in the classroom is demeaning to teachers: it fails to recognise that the teacher is responding to a complex, unpredictable, and changing environment where her/his every action has social consequences. As has been shown within Māori, feminist, and socialist investigations into research, the participants within any culture or social setting do not act alone, and they do not construct meaning alone: existing theory (cultural knowledge, experiential knowledge) are called upon selectively and contribute to emerging understandings and practices. Under this model, existing theory is a conceptual tool, not a pre-packaged product which can be applied. A key argument in this thesis is that pedagogical decision-making processes are more flexible (and therefore have more scope to work against the grain of hegemonic assumptions at individual or

collective levels) when teachers have access to a range of theoretical models and a range of practical activities on which they might call in their teaching.

The criteria for judging the quality of existing theory are, I argue, pragmatic criteria: consideration of the social consequences (both short term and long term) of our judgements ought to form the basis of our ongoing research and practice within education. I champion a philosophical shift away from a paradigm that values truth as correspondence with reality toward a paradigm which recognises truth claims as a form of social control; postmodern understandings of knowledge as socially and linguistically constructed are central to this argument in which I have shown that a postmodern perspective need not deny the lived experience which we call reality (nor the findings of the physical and biological sciences), nor the value of the structural concepts we have created to describe our social world (i.e., the psychological and sociological structures which allow us to theorise about enduring patterns within our individual and collective worlds).

By developing models and arguments which show various ways of representing and understanding conversation, I have attempted to shift the focus of research attention in the direction of the collective: I seek fresh understandings of collective knowledge constructions, collective research practices and collective pedagogies which will, and do already, emerge from collective conversations. By caring in this way for the collective, and by developing a discourse surrounding collective, robust well-being, there is a chance that our collective praxis will evolve in the interests of democracy and social justice.

There is a chance that our social structures will (if we reduce our philosophical reliance on single correct, or best, answers and recognise that different theories are interesting in different situations, and for different political reasons) evolve so that we come to value pluralism and *dissensus* as sources of those heated conversations which ensure that power continues to circulate.

There is a chance that individualism, which permeates Western society in guises such as selfishness, materialism, loneliness, isolation, and an educational focus on self-esteem, might (if we come to understand how social groups might be thought of as emerging systems) be balanced by a stronger focus on collectivism and the values and practices that nurture communities, and therefore a stronger focus on care for all people through the elimination of all oppressive forms of exclusion.

This dream provides pedagogical, methodological and philosophical challenges to teaching and teacher education: if we are to effect the changes I dream of, we have much talking to do, we have many changes to make in the ways we think and act, we have much research to do in order to understand the social consequences of our actions, and we have much theorising to do. I have taken a first step toward achieving this dream by listening, talking and writing: my companions in these conversations have been my colleagues, my students, the literature, and the voices I have constructed from my past experiences; the outcome of this first step is this thesis; the next step is to build upon half-formed new vocabularies (Rorty, above: 45) through collective conversation: the long term goal is to create and support voices which will revitalise our collective, democratic and inclusive discourses.

My promotion of the vocabulary associated with praxis (by which I mean praxitioner and its various extensions, for example, praxitioner research, praxitioner pedagogy, and praxitioner collective) is designed to tempt the reader to investigate their use; I do not set out to convince the reader of the value of this new construct. My aim is to invite the reader to consider how things might be different if these terms were used to distinguish practices which (a) recognise postmodern understandings of the socially constructed nature knowledge and power (but do not jettison other understandings) (b) foster collective meaning making about substantive issues, (c) focus attention on praxis and political and strategic ways of acting, and (d) refer to eclectic forms of knowledge and ways of making meaning in order to transcend any particular ideological bias, yet at the same time to operate pragmatically within or on the edges of existing cultures and contexts. I know that when I work in communities which have practices like these it is possible to create learning spaces where robust, rational and paralogical conversations can be ongoing, about matters that are of importance to the group. In the case of ongoing teacher education and knowledge construction, I seek ways to construct such communities of learning within existing resources.

Some people might consider the notions I have discussed to be predominantly feminist, or pragmatic, or postmodern, but none of those terms captures the eclectic mix I seek. Pragmatism, in its philosophical sense is closest, as I have argued in chapter 3, but it loses its power because of the common usage of the term. I therefore invite ongoing discussions in which the terms might occur, and might be found to be useful in clarifying where-to-from-here in teacher education.

The final chapter of this thesis acts as an opening, rather than a conclusion. In it, I describe how a group of teachers worked together to foster an understanding of a substantive issue. The attempt is both a feeble start and an exciting beginning: it is feeble, in that the events I describe occurred on only one morning with only one small group of people, but it is exciting in that the events of that morning inspired the thought experiment (the Expotition) which gave life to this thesis, and it provides an example of how (as chaos theory reminds us) small events can have far-reaching consequences.

Chapter 6 Toward collective pedagogy: A praxitioner's report

Introduction: Toward collective pedagogy	242
Section 6.1 Postmodern and critical perspectives	243
Postmodern perspectives: Knowledge	245
Critical perspectives: Engaged pedagogy	247
Praxitioner perspectives	249
• Exhibit 6.1.1 Diagram of praxitioner perspectives	249
• Exhibit 6.1.2 Praxitioner voices	250
Section 6.2 Current, pragmatic perspectives	251
Section 6.3 Praxitioner research in practice: Seeking collective pedagogies	259
The student lens	259
 Exhibit 6.3.1 My invitation to Teachers (Students) to take part in an a conversation about pedagogy 	261
An Engaged Learning Space as an emerging-object.	262
• Exhibit 6.3.2 Components of an Engaged Learning Space	263
What makes and what breaks an Engaged Learning Space?	264
• Exhibit 6.3.3 Adrienne (the pedagod) with the team and the whiteboard	265
• Exhibit 6.3.4 A printout of whiteboard writing.	266
The diamond 9 activity	267
• Exhibit 6.3.5 Group one's response to the Diamond Nine exercise	267
• Exhibit 6.3.6 Group two's response to the Diamond Nine exercise.	270
Section 6.4 Praxitioner research in practice: Seeking collective praxis	275
Toward understanding and evaluating pedagogy	276
Toward wider issues	279
• Exhibit 6.4.1 Reflective questions for praxitioners engaged in an Expotition	280
• Exhibit 6.4.2 A brief report on a snippet from a later conversation	281

It is debatable whether postmodernity is actually a break with modernity, or merely its continuation. ...

What is new today is the pervasiveness of postmodern themes

in the culture at large. ...

Postmodern thought is characterised

by a loss of belief in an objective world

and an incredulity toward metanarratives of legitimation. ...

Knowledge becomes the ability to perform effective actions. (Kvale, 1996: 19)

It is the unruliness of knowledge that challenges us now.

(Stronach and Maclure, 1997: 98)

Introduction: Toward collective pedagogy

... legitimation can only spring from ... linguistic practice and communicational interaction. (Lyotard, 1984: 41, quoted more fully on the front page of this chapter)

In this chapter I describe a practical investigation which arose as a consequence of my teaching but which contains elements of both research and knowledge construction: this investigation has been central to the emergence of the ideas I report upon in this thesis. In direct contrast to my work with the AGNET network (exhibit 1.4.1, above: 67) I found that, in this experience, the teachers and I shared a common issue around which we wanted clarification: our work was therefore collective rather than (merely) supportive and collaborative. I write as a praxitioner; in my interactions with the teachers, I was open about my research, acted as a facilitator for the session, and employed a form of praxitioner pedagogy⁵⁰; in this report, I experiment with the notion of working as an individual praxitioner researcher.

Based around my understandings of postmodern theory and my experience as a teacher, I invited a group of teachers who had completed a short course with me to return for a morning to discuss pedagogy. Six of the ten teachers who had completed the original course attended; the workshop session generated some findings that surprised me, and which have provided me with insights that have informed this thesis. Here, in ideal conditions, was an opportunity to investigate theories and practices of teaching with a small group of experienced teachers who not only knew each other (as a result of our 10 hours of shared contact in the short course on reflective practice) but who had also volunteered to attend a session which was not linked to their assessed programme. We expected to enjoy each other's company and to explore interesting ideas.

I do not know if I was teaching, or facilitating, or guiding, or researching, or theorising with, or hosting, this group of teachers: it was all of the above and more. I do know,

I use *praxitioner pedagogy* to refer to a philosophically-based activity where hosting or facilitating a group (teaching does not quite work) sets out to create a *collective* learning space in the sense in which I have used the term in this thesis. The pedagogy (as it emerges, shaped by the teacher (the pedagogue) and all the participants) sets out to create a learning space where all participants are engaged in clarifying their respective understandings of a particular issue, and generating some shared, yet contested, collective understanding which will guide future praxis.

⁵⁰ Gloss on praxitioner pedagogy

however, that I would not have called such a group together without the insight of theorists who have written in the fields of postmodern and critical theory. This chapter is, therefore, one example of ways in which these theories might inform teaching. It is a very small example, but small examples can generate other examples and strategies; small examples can link with other small examples to become substantive.

I begin the chapter by discussing the specific theory that informed my experiment into praxitioner pedagogy and indicate how this kind of *praxitioner*⁵¹ *collective*⁵² is relevant within the context of Aotearoa New Zealand. Some detail of the session, and the findings that emerged are then presented and discussed. I conclude by considering the possible implications of this kind of shared investigation within teacher education. Legitimation, for *praxitioner pedagogy* and *praxitioner collectives*, if Lyotard is to be believed, can spring only from linguistic practice and communicational interaction. I seek discussion and more writing, collective writing perhaps, about experiments into praxitioner pedagogy and research.

Section 6.1 Postmodern and critical perspectives

In retrospect, my goal on the morning of 9 June 2001 was to call on teachers' voices of experience; I wanted to create a collective space where our knowledge of teaching could be shared in ways that that would enhance all our understandings.

I can explain this best by extending the model of a *prism of praxis* (above: 110, 155): that model is too constrained for my purposes, it is too straight-edged, too sharp-cornered, too

⁵¹ Gloss on praxitioner

A praxitioner is a practitioner who has a commitment to social justice, an understanding that theory both guides action and emerges out of action, and an intelligent curiosity about the consequences of action in reproducing injustice. A praxitioner is simultaneously aware of self-as-individual and self-as-element-incollective: she/he therefore has access to discourses that assume an understanding of postmodern constructions of subjectivity. A praxitioner is aware that theories and names are all socially constructed as tools: the negotiated nature and political nature of meaning is therefore accepted as axiomatic; a praxitioner takes a pragmatic interest in the consequences of action and analysis.

⁵² Gloss on praxitioner collectives

I use *praxitioner collective* to refer to a group of praxitioners who have a shared interest in developing theory and investigating the consequences of their individual, personal actions and strategies around an emerging object.

limited by its six discrete and stable vertices, so, therefore, I adapt it into what I call my *scope of praxis*. The prism of praxis has served its purpose of showing how voices (both theoretical and active) can vie for attention and guide my action, it is time to throw away its constraints and let the edges and corners blur and distort: within the new topology, the shape remains closed, but it has become dynamic (imagine a sack of some sort, perhaps a sleeping bag, which contains voices, all those people, Ernest *et al.*, whom I have described as my current voices and therefore all of my potential praxis: as any particular voice is summoned, it kicks against the surface of the sack creating a momentary vertex, a conscious recall which influences my decision-making).

The scope of my praxis (i.e., the voices and *strategies* affecting my actions) on that morning called upon: my recent reading of postmodern theory (Kvale, Lyotard, and Stronach and Maclure) and of critical pedagogy (hooks, Shor, McLaren); my recent experiences in working with groups of teachers to produce shared understandings (Mayo & Hannah (1998, 1999), Mayo *et al.*, (2000 (above: 183)), Mayo & Thurlow (2002)); and my knowledge that this particular group had a shared experience of being in my class while we investigated reflective practice as a tool for ongoing teacher professional development; various other voices from the media and from conversations with colleagues - all these things impacted on my thinking about and on that day. Any of these voices and experiences (and also others, like Hélène, or irony) were present within the scope of my possible thoughts and actions during that morning.

Other participants would have come to the session with very different sets of possible thoughts and actions. My aim was to facilitate a session in which we all focused our attention on a specific goal (emerging-object) so that our discussions would be (a) clearly bounded and (b) call openly on our respective understandings.

My mission, therefore, was to facilitate a session where we, collectively, worked toward developing a shared understanding of something that was not yet defined, but which would emerge during the session as the participants came to share the scope of their respective viewpoints and experiences. The shared understanding did not imply that we would all agree; on the contrary, a shared understanding would allow us each to gain understanding from viewpoints that were different from our own: we might or might not agree with these fresh perspectives, but our understanding of the scope of the emerging-object would be enlarged. This is what I mean by collective understanding: not agreement but

understanding that a variety of different perspectives exist: the collective question then becomes one of clarifying when and where these different perspectives might apply, and how they might influence future praxis. Conversations continue across differences, the collective thrives on *paralogical* discussion and does not seek a universal solution: it seeks to become a discourse where the emerging-object can surface.

I had not developed praxitioner theory at that time, yet I was well aware that these teachers and I shared cultural baggage in relation to the particular roles teachers and learners play when they come together as a group. I needed to break down the teacher/learner divide in a way that would still leave me in charge of the agenda (I wanted to learn specific things from them so that I would have data on which to build more theory); I located myself as researcher of my own practice and proposed to the teachers that that was their role too; I located myself as a teacher who was striving toward something I did not understand, and invited the teachers to join me to explore possible meanings. My description of my questions, in the invitation that went out to the teachers (exhibit 6.2.1, below: 261), interested them enough for almost everyone to want to attend (a couple had other engagements yet six out of ten attended). At the time of writing the invitation, I was not using language that emerged in the pending *recall morning* (where discussion revolved around the idea of an *engaged learning space*) and within this chapter (where I focus on *collective pedagogy*).

Before reporting, in the next section, on my attempts to generate this unnamed, fresh culture, and our shared learning as a result, I shall comment further on the scope of the theoretical and practical considerations that influenced my actions on that day. These are relevant because they demonstrate my attempts to use theory as data within practice: the value of theory from this perspective is that it gives insight into possible action, it expands the scope of praxis; it is not that I have understood the theory and then later apply it, I do not apply it - instead, I create fresh interpretations of theory, I create fresh theory as I juxtapose my understandings in a particular situation and choose how to act. Under this construction, reflection on practice is a highly complex, political process.

Postmodern perspectives: Knowledge

My search for an emerging-object was enabled by postmodern understanding of knowledge as not only socially constructed but also an ability to perform effectively. I was

investigating ways of performing effectively as a member of a group, each of whom had personal understandings, but not shared understandings, of the pedagogy that might emerge. The goal was not to describe our current knowledge, but to generate new knowledge.

Postmodern deconstruction must *address* rather than *arrest* the 'mobilisation' of meaning in educational policy, and attend to the *uncertain trajectories* of meanings in contemporary times. (Stronach and Maclure, 1997: 97, italics added)

When we sought to gain fresh understandings, we sought to *address* the mobilised meaning; by avoiding the goal of describing our shared understandings we avoided an attempt to arrest meaning. By looking ahead to our future praxis, we sought to attend to uncertain trajectories.

I did not teach this theory: I implied it, and in occasional sentences I explained it to the group. The theory sat as essential background material; it was introduced within the discussions, to clarify a point that was being made, or as supportive material. It was not my role to teach yet it is impossible to remove teaching from discussion within praxitioner research: to express one's understanding is, in the context of praxitioner research, to teach; to listen with curiosity to the perspectives of others is to learn; and to work together in ways that recall past praxis and look to future praxis is to research. Within a collective, we are all teachers, learners, and researchers; it is not that we are hybrids, rather it is that clear distinctions between these roles disappear. We do take on one or more of these roles, moment by moment, as conversation flows: sometimes we teach, sometimes we listen and learn, other times we reflect and seek new patterns, but these operations mingle so that all of us in the collective are involved in everything. (This occurs even if, as I shall discuss later, the collective includes specialist teachers, researchers, and those seeking further qualifications: even though some members carry out specific functions, all members have responsibilities as teachers (to share and facilitate), as learners (to listen and question), and as researchers (to theorise and investigate fresh understandings) in the co-construction of emerging knowledge.

Other quotations were close to the surface of my thinking during the session. They too would be called upon if needed:

... legitimation can only spring from their own linguistic practice and communicational interaction. (Lyotard 1984: 41)

Knowledge becomes the ability to perform effective actions. (Kvale, 1996: 19)

It is the unruliness of knowledge⁵³ that challenges us now. (Stronach and Maclure, 1997: 98)

It is irresponsible to continue to privilege the escape clauses⁵⁴ of a foundational appeal. (Ibid, 1997: 98)

Given the inherently disordered nature of discourse, how are individuals to understand and accept the disorder ...?" (Ibid, 1997: 98)

I was trying, somehow, to infuse these ideas into my practice, my pedagogy, within the session. I wanted to facilitate in ways that recognised and assumed the importance of "linguistic practice and communicational interaction", ways that addressed "the unruliness of knowledge", ways that enabled us all "to perform effective actions" and avoid "foundational appeals" so that we might all understand "the inherently disordered nature of discourse" more fully.

But this is only part of the story: the voice of hooks and other teachers who called on critical, Marxist theory, were also to the fore, and the concern that brought us as teachers together that morning was pedagogy, not postmodernism *per se*. My recent pedagogical questions had been around critical pedagogy: I wondered why these approaches appeared to be discussed very little within teacher education.

Critical perspectives: Engaged pedagogy

Critical theory raises questions about ways in which students and teachers conspire, unknowingly, within a factory model of schooling to create learning spaces where oppression is perpetuated. The ideal of teaching in a classroom where everyone is enthusiastic and involved, curious and creative, seems to be a distant dream, particularly in

⁵³ Gloss on unruly knowledge

We have believed since Copernicus that the world is not flat, but social versions of the flat earth theory continue to thrive (I teach flat-earth geometry when I teach that the sum of angles in a triangle is 180°). Not only are the ideas about the theoretical nature of knowledge complex, there is now, the even greater complexity that arises from the realisation that different and competing forms of knowledge can exist simultaneously, that what counts as knowledge is not pre-existing but evolves within the social setting.

⁵⁴ Gloss on the escape clauses of a foundational appeal

The "escape clauses of a foundational appeal" is a counter to "the criticism of those critical theorists who hold that deconstruction and/or postmodernism is irresponsible in its relativism" (Stronach and Maclure, 1997: 98). Responsible texts do not disguise the context in which they are created, nor their partial (incomplete and necessarily biased) interpretations: in Sacks' (2000) terms (above: 31) the escape clauses of a foundational appeal would refer to *uncritical* analyses which assume an ontology with real foundations. Postmodern texts are, within this argument, more responsible than texts which disguise their underpinning assumptions.

classrooms of children who are poor, or somehow disenfranchised, or disadvantaged, or different from the cultural norms of the school.

The literature of critical pedagogy tells of teachers who have sought to overcome such patterns. In many cases, discussions relate to teaching in an post-compulsory settings (see for example: McLaren, 1993; Brunner, 1994; hooks, 1994; Shor, 1996) where there is perhaps more opportunity to undermine traditional assumptions about the role of the teacher as the one who "knows" and the one who has sole responsibility for classroom dynamics.

(H)ooks' (1994) work, in particular, had attracted me because it spoke to me of voice and raised fresh understandings of the ways that schooling silences and excludes people on the basis of gender, class, race, and lack of prior knowledge. (H)ooks discusses learning within a community where excitement is generated as participants engage in creating fresh understandings. The notion of engaged pedagogy, promoted by hooks and expanded by Florence (1998)⁵⁵, provided the theoretical base for the emerging-object of our morning workshop session.

As a classroom community, our capacity to generate excitement is deeply affected by our interest in each other, in hearing one another's voices, in recognising one another's presence. Since the vast majority of students learn through conservative, traditional educational practices and concern themselves only with the presence of the professor, any radical pedagogy must

55 Gloss on Engaged Pedagogy

Engaged pedagogy seeks to counteract a monocultural curriculum and critiques the prescribed roles of teachers as privileged voices and students as passive learners. It seeks:

to counteract insidious hierarchical relations in social arrangements and the often insidious cultural reproduction in schools. (Florence, 1998: 76)

Namulundah Florence provides a summary of the five elements in traditional educational practices critiqued by bell hooks. The practices bell hooks challenges and which are absent within an engaged pedagogy are:

- (a) the metaphysical notion of knowledge as universal, neutral, and objective;
- (b) the authoritative, hierarchical, dominating and privileged status of professors;
- (c) the possible image of students as recipients of compartmentalised bits of knowledge, which limits student engagement in the learning process by not considering them as whole human beings with complex lives and experiences;
- (d) the traditional notion that the sole responsibility for classroom dynamics rests with teachers; and
- (e) the Western metaphysical denial of the dignity of passion and the subordination of human affectivity to rationality. (Ibid: 77)

insist that everyone's presence is acknowledged. ... the professor must genuinely value everyone's presence. There must be an ongoing recognition that everyone influences the classroom dynamic, that everyone contributes. These contributions are resources. (hooks, 1994: 8)

The notions of *contributions as resources* and *engagement* were central to the pedagogy / methodology we, as a collective, were seeking on that recall morning. hooks writes that her:

commitment to engaged pedagogy is an expression of political activism. Given that our educational institutions are so deeply invested in a banking system, teachers are more rewarded when they do not teach against the grain (ibid: 203).

We were, on that *recall morning*, engaging in talking theoretically and politically about our practices as teachers. hooks talks about writing as theoretical talk (which invites readers to engage in critical reflection); she reminds us that theory emerges from the concrete; her theory arises from her efforts to make sense of everyday life experiences, from her efforts to intervene critically in her life, and in the lives of others (ibid: 70).

All these ideals about collective engagement, praxis, and political and theoretical possibilities, and the desire that I and other teachers might learn to "teach against the grain," sat with me as I talked with my colleagues in that recall session in June 2001. hooks' voice reminded me, "It is not the subject matter but practices in teaching that make for a liberatory pedagogy" (ibid: 148): our task for the morning, based on all the above,

became that of investigating the meanings we could construct around and within *an engaged learning space*.

Praxitioner perspectives

Exhibit 6.1.1 represents the directions in which a praxitioner (located at the centre of the arrow diagram) might look for inspiration into possible choices of action: the diagram

Exhibit 6.1.1 Diagram of praxitioner perspectives

Current, pragmatic issues

(context, practice, constraint, opportunity, reality)



Theory emerging in philosophy

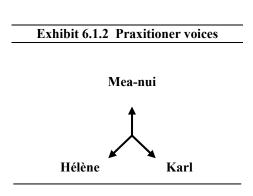
(Lyotard, Stronach and Maclure, Kvale)

Theory emerging within teaching

(Ellsworth, Shor, hooks, McLaren)

illustrates that she/he is aware of critical theory, postmodern theory in both their philosophical and applied guises (lower arrows), and the upper arrow reminds the reader that a praxitioner is also a pragmatist who takes an active political interest in current constraints and opportunities. A praxitioner, because she/he is a pragmatist, also looks toward the current context in order to understand both structural constraints and opportunities for creative intervention. This model is very similar to that in exhibit 2.1.2

(above: 102) where Ernest, Hélène, and Karl connote voices which are informed by realism, moral philosophy, and the politics of teaching: in this case, as is shown in diagram 6.1.2, Ernest's voice has been replaced by that of Mea-nui, connoting pragmatic considerations (both constrained and creative). This



replacement is not a substitution: it connotes the view of a different surface of the tetrahedron in exhibit 3.0.1 (above: 116).

I have discussed, above, the ways in which voices of Hélène and Karl influenced my thinking on the recall morning. In the next section I discuss some pragmatic issues related to the context of my teaching.

There is a need, I argue, to promote investigation into pedagogical matters at a philosophical level where dominant assumptions are rigorously challenged. Depending on one's perspective, it is possible to argue either that we are overcoming the banking pedagogy identified by Freire, that innovative teaching and the restructuring of some schools is showing a way forward to a more egalitarian form of schooling, or that schools continue to operate within a factory model where children are shaped to conform to existing social structures, and where democracy is being undermined as a sense of hopelessness permeates some sectors of the population.

The investigations I envisage need to engage both these perspectives (and many others) in *ongoing conversations* which address pragmatic, postmodern and critical issues. These conversations need to challenge the certainty, the genuine confidence, of those teachers around me who express a certain surety in their personal understanding of what constitutes good teaching and who seek to train their students to conform to certain predefined cultural

expectations: such transmission pedagogies do not engage students in ongoing conversation. Yet, for every pedagogical stance, there is a specific literature which supports this particular ideology (those who base a theory of learning on behaviourism as opposed to those who theorise around constructivism, for example, call on quite different sources for as authorities); those who are very confident in the correctness of their position will commonly be able to name, undermine, and therefore ignore debates which are in opposition to their own position. The need is for a form of investigation that straddles these divisions, yet if one individual attempts to work in several fields the precision of each is lost. In attempting to identify a significant issue (a really major issue that attracts widespread interest) and to create a discourse which straddles ideological boundaries around this issue, I need to call on the notion of a collective in order to retain the expertise of specialist investigations while constantly calling attention back to the central social issue I have called an emerging-object.

Within institutions which focus on teacher education, there is an opportunity, now, in 2003, in Aotearoa New Zealand, to foster a form of research which addresses the issues I raise: institutions, such as the one in which I work, which once centred around initial teacher training, have become institutions which (a) teach post-graduate qualifications, (b) work directly with teachers through Teacher Support Services contracts, (c) are developing strong research cultures and (d) work in partnership with (or have merged with) traditional faculties of education within universities. Prior to the 1989 New Zealand educational reforms, institutions which were able to link ongoing teacher education with postgraduate teaching and research did not exist: changing relationships between teaching practice and pedagogical theory open up the possibility of the emergence of distinctive research cultures.

Section 6.2 Current, pragmatic perspectives

In this section, I reiterate some of the pragmatic perspectives that have been discussed already in this thesis and then make some observations about relevance of various strategies to local, national and international contexts. The constructs I have discussed above (for example, creative pragmatism, unachievable equilibrium, and the notion of a praxitioner) were not clear to me in June 2001 (which came, obviously, before September

2001, and therefore before Latour wrote, in the aftermath of 9/11, about the need for a philosophy which promotes pluralism and fosters diplomacy within conversations about what counts as truth and what counts as epistemological arrogance (above: 150)). Yet the ideas were already emerging, that there was a need to find ways that knowledge and understandings of what counts as truth could emerge within conversations at every level (in classrooms as well as internationally), and that diplomacy was necessary at every level if we were to learn to foster democracy in fresh, plural ways.

Pragmatic perspectives introduced within this thesis

I have written, so far in this chapter, about myself as an individual praxitioner, but have not yet addressed the notion of a praxitioner collective: what is needed next is to consider how the notion of *praxitioner collective* might be constructed. I have written, in chapter 4, of my concern that many, very caring practitioners may be unaware of insights arising from postmodern and critical theory and therefore be seen as naïve in their philosophical understandings of the possible impact of their praxis. By introducing the notion of *praxitioner* I have sought to produce theory which might allow teacher educators to recognise the need to attend to these missing dimensions, as illustrated in diagram 6.1.1 (above: 249). What is needed next is to consider how a group of *praxitioners* might address an *emerging issue* (i.e., the virtual glue that binds the collective together).

I have written, in chapter 5, of my concern that research methodologies as they are interpreted around me, tend to be based on modern theories of knowledge construction (knowledge is located in the text, it is poured into an individual (as empty vessel), or it is assimilated (in a constructivist way); the quality of individual constructions can be assessed (by measuring and judging actions/words under test conditions); research produces new knowledge which can then be checked (through replication) and disseminated (as theory to be applied in other contexts)). I argue that *praxitioner research* needs to encompass both (a) postmodern theories of knowledge construction (where knowledge is unruly, lies in the reader's interpretation (Barthes, 1968, above: 49), and is demonstrated through *performativity*) and (b) critical theories related to social structuring through categorisation (by socio-economic status, sexuality, age etc.). By constructing the notion of *praxitioner research* I have sought to produce theory which might allow those who teach about and carry out educational research to question to what extent these dimensions may be missing.

By constructing the notion of a *tangled hierarchy* I have enabled the interests I discuss to be introduced as strategies that sit alongside but do not jettison existing forms of research. In sections 6.3 and 6.4 I describe an attempt to develop a pedagogy/methodology (I do not wish to distinguish between teaching and researching at this point) which might serve the interests of a *praxitioner collective* as it seeks to construct fresh understandings (this is learning/researching); these understandings (this knowledge) could then be shared with others (this is reporting to other teachers and/or to other researchers, and or both).

The location of my work: Opportunities in a changing institution

The institution within which I work is undergoing a transformation from being primarily an establishment that provided initial teacher training to being an institution with an active involvement in the production as well as the consumption of research, and which has an active part to play in ongoing teacher education. This emerging research culture is different in significant ways from that found in education departments within existing universities. Because the emerging researchers are grounded in teaching, rather than in educational theory, they have not generally been immersed in discussions about relationships among research and knowledge, or theory and practice. however, is for these emerging researchers to undertake studies which fit the mould of the work carried out within other institutions. I do not wish to undermine the importance of these studies: interpretative research reports that are written by experienced school teachers provide us with important insights that are (inevitably) not present in the work of those with other backgrounds and strengths. In making a case for praxitioner research I am suggesting, first and foremost, that the emergence of a research culture within my institution offers a unique opportunity to view the research process in a new way: traditional interpretative or representational forms of knowledge construction are built upon a long tradition where the goal is realistic description of material, social or linguistic patterns, whereas teachers as praxitioners have lived with the pragmatic reality of dealing with the consequences of their every action within the classroom. *Praxitioner research*, with its roots in a pragmatic epistemology, builds upon the existing knowledge-base of teachers.

Whenever I have talked with colleagues about this emerging model of praxitioner research they have wanted examples of what I mean, in order to consider how the ideas might apply to them. The common sense understanding of research in the education community continues to be based upon a realist epistemology. Even when action research or reflective practice are discussed, the conversation veers toward wondering what knowledge claims can be made within these forms of research. The epistemological break with realism has not been made. Moreover, the status of these forms of research is based upon criteria which do not fit their political agendas. They are forever seen as lacking because they do not produce the kinds of products that realist research expects.

The need for local examples of praxitioner research

I suggest that the notions of praxitioner research and collective praxitioner research, focused on a particular emerging-object, are strategies that are particularly relevant to practitioners who are advising teachers, and to teachers who are studying for post-graduate

qualifications. There is an urgent need for further case studies of praxitioner research to illustrate the methodology. When I talk with *Kevin*, for example, about the work of the *Advisors* at *Teacher Support Services* he wonders how these ideas might apply within his work and that of his colleagues, and whether this is a form of reflective practice. He asks, for example, "Is this a form of action research? How might it

Kevin Hannah: Mathematics advisor at Support Services, colleague and friend, coordinator of the *AGNET* project (above: 51).

Advisors: Teachers who work in schools and centres and with teachers to foster institutional and professional development, particularly in relation to current curriculum initiatives as defined by government policy.

Teacher Support Services: The branch of the College of Education in which advisers are located.

work? What would the products look like?" I have sought to give one answer to these questions although my study was centred on the engaged classroom, but the methods and results do not immediately yield a report of praxis that relates to the work of an advisor. More examples of praxitioner research are needed. To generate them is an exercise in collective praxitioner research. Strategies for, and the implications of, investigating one's own praxis need, I argue, to be the focus of a collective investigation into praxitioner research as a tool for fostering emancipatory social change in an age which is dominated by performativity rather than by the search for truth or justice. This is the changing of the waters I am seeking.

My aim is to provide concrete representations of this approach to research so that advisors can relate to them. I also want to write in a way that other lecturers will make sense of, because my goal is to influence them into discussing this material and exploring the

possibility of implementing this form of research within a collective network, within my institution.

Support for the work of teachers in schools

A second reason for fostering *praxitioner research* as a reputable form of research relates to the work of *teachers* in schools. Now that funding for specific initiatives is sometimes directed at particular schools, schools have the responsibility of demonstrating the effectiveness of this funding in changing educational outcomes. Current measures of educational outcome tend to be based on quantitative data which are not commonly sensitive enough to detect emerging cultural changes. Qualitative methods and action research models are more able to demonstrate the existence of these subtle changes but they continue to be seen as not producing the kind of hard data that drives political decision making.

At Lincoln High School, for example, during 2002, some teachers talked together on a regular basis about aspects of reflective practice based upon Brookfield's (1995) model. In conversation, the principal of the school, Linda Tame, asked me, "How do we show what we are achieving? How do we measure the changes we are making? How can we demonstrate that this work is making a difference?" Linda knew that they were achieving something important and interesting; she had stories to tell of the excitement generated and the ways that staffroom conversations were changing as teachers began to talk more about actual learning experiences (their own, and those of their students); she could identify specific instances when particular teachers acted in ways that showed a changing understanding of teaching and learning. Yet she was asking: "What can we measure? Where is the evidence of changes for our students?" The problem here is that systemic forces require immediate, short-term evidence in terms of measurable outcomes of school success; the system does not listen to and build upon the opinions of its senior educators. How do we listen to and make use of professional knowledge within policy development and in relation to the allocation of research and development money to institutions?

Toward trust

Onora O'Neill, who presented the BBC's 2002 Reith lectures (www.bbc.co.uk/radio4/reith2002/) around the general theme of developing trust, argues

that new forms of external accountability are undermining the real work of professionals, by undermining rather than fostering trust.

The pursuit of ever more perfect accountability provides citizens and consumers, patients and parents with more information, more comparisons, more complaints systems; but it also builds a culture of suspicion, low morale and may ultimately lead to professional cynicism, and then we would have grounds for public mistrust. (www.bbc.co.uk/radio4/reith2002/: lecture 3)

It is central to the argument of this thesis that the voices of teachers as practitioners and researchers who have an experiential knowledge base need to be listened to and valued, not as sage-like authorities, but as active agents who promote discussion about teaching and learning and about ways in which society might recreate itself through its education system. Teachers work with the community (in the form of children and their parents) and with policy makers (through their networks within the education system). I am suggesting a need to reconstruct the role of teacher / researchers in the light of their potential, as praxitioners, to act as agents of democratic change.

Tertiary Education Strategy - a document showing a transition

There is a third reason why the emergence of praxitioner research is of importance in Aotearoa New Zealand. Whereas metaphors of "knowledge as a product" might be relevant within the applied, commercial, industrial, and physical sciences, they do not transfer well to the social sciences. Pragmatic ways of knowing, and the value of teachers as researchers and constructors of knowledge, are not adequately recognised within governmental policy documents. Objective 34 of the New Zealand Government's Tertiary Education Strategy 2002/7, for example, builds upon the metaphor of knowledge as a product that can be applied in commercial settings.

Objective 34

Improved knowledge uptake through stronger links with those that apply new knowledge or commercialisation of knowledge products. (Ministry of Education, 2002: 58)

This objective is progressive in that it advocates that

By 2007, the nature of research uptake will have changed, from the previous linear 'from academic idea to implementation or commercialisation' approach to a much more networked approach, focused on problem solving. (Ibid: 59)

In relation to teaching, this objective is flawed when it promotes the 'increased research literacy of users, so ensuring the uptake of research results' (ibid: 59, point 4). The

implication here is that knowledge is product. Postmodern theory, as well as practitioner theory such as Schön's imagery of reflection-in-practice, implies that knowledge is emergent and located within practice.

The objective continues:

There will be genuine two-way learning between researchers and users throughout the research process, including the engagement of end users in research programme design, development, execution, and implementation, and the movement of staff and students between providers and users. (Ibid: 59, point 4)

Within the educational context, this could be interpreted as action research where some teachers are included in the research process so that the knowledge that is created will be more relevant to teachers, and easier to disseminate. It could also be interpreted as a call to include more teachers (working as researchers and/or as post-graduate level students) within research initiatives. While these are valuable calls, they do not cater for the kind of epistemological shift that routinely locates the teacher as the source of knowledge in action. The teacher as practitioner is the arbiter of knowledge that is applied/created in the classroom: arbitration is, therefore, a professional responsibility of teachers.

Teaching and learning research initiatives

In sum, responding creatively to the changing research culture in all our institutions, recognising the essential role of teachers in schools in inquiring into and developing their own teaching and learning, and recapturing the delineation of knowledge at a political level are all compelling reasons to give voice to the notion of praxitioner research. The case for praxitioner research is an attempt to restore, on many levels, a recognition of the role of teachers as active participants in the kinds of communal decision making that are essential safeguards within a democracy.

All this stands for nothing, unless the theory influences practice or performance. The notion of *performativity**56 defines knowledge afresh, as the ability to perform effective actions**57, which, in this case, relates to trying to find ways in which a collective pedagogy may operate. Stronach & Maclure (1997) discuss the changes in funding for research and how funding does not allow for the detailed and reflective investigations that could have been carried out in evaluative research projects in the past. They indicate that the apprenticeship model for training researchers is also being truncated and that research

techniques that have been developed and authenticated over time are no longer being sustained. Hence a researcher is judged more on performance than by conventional criteria related to reliability and validity. Similarly, in the last decades, teachers have not had the opportunity to indulge in detailed and reflective investigations of the learning of their

⁵⁶ Gloss on performativity

The principle of *performativity*, or the principle of *optimal performance* is: maximum output for minimum input (Lechte, 1994: 247), and, in Lyotard's original words,

Performativity is the best possible input/output equation. (Lyotard, 1984: 46)

Performativity now dominates the scientific language game (rather than the earlier sources of legitimation of knowledge, namely, the grand narratives of speculation (truth) and emancipation (justice), which is the territory in which Ernest, Hélène and Karl have lived).

Once performativity dominates, truth and justice tend to become the outcome of the best funded research (best-funded therefore the most convincing) ... And if those who have wealth to fund research also have power (and they have power, according to Lyotard, because they profit from research), the postmodern era would be one in which power and knowledge come into contact with each other as never before. (Lechte, 1994: 247)

Performativity has, within Lyotard's account, become more important in the legitimation of knowledge than either truth or justice: performativity has become the criterion which legitimates knowledge. A consequence is the realignment (with a focus on technology over philosophy, and greater funding for applied rather than pure research) currently occurring within tertiary institutions: this was presaged by Lyotard's (1984: section 12) discussion of *Education and its legitimation through performativity*.

⁵⁷ A second gloss on performativity

Butler (1993) uses performativity both as the ability to perform effective actions and, in a sense, the inability to avoid performing and therefore the inability to avoid being subject to interpretation. She "views all gender positions as forms of performance" (Gamble: 127).

Butler's notion of performance identification functions ... by ... either being employed to establish a normative notion of gender and sexuality as compulsory, or as a way of revealing its fictitious nature. (Gamble: 60)

Humm (1995: 28) reports that Butler (1993: 3) suggests new possibilities to counteract sexual regimes constructed around binary oppositions: she proposes 'performances' of multiple gender representations, as 'cultural phenomena' (rather than as opposed to 'isolated acts'). The binary is undermined by multiple representations.

Performativity is .. not a singular "act," for it is always a reiteration of a norm or set of norms, and to the extent that it acquires an act-like status in the present, it conceals or dissimulates the conventions of which it is a repetition. (Butler, 1993: 12)

These uses of *performativity* in relation to gender roles are in accord with the notion that to act or to perform is to affect social norms; it highlights the idea that to know how to act or perform is to know how (whether consciously or not) to adopt (or resist) the normative behavioural patterns of a culture; it also highlights the notion that, no matter how one chooses to act, one performs, so that we are, all of us, complicit in the structuring of the fictions we interpret.

students, or of their own teaching practices. Judgements about the quality of a teacher are linked more to measures of performance in achieving satisfaction in a classroom than to any objective measures of validity. What does this notion suggest for teacher education?

Section 6.3 Praxitioner research in practice: Seeking collective pedagogies

This investigation into my teaching focuses on a two hour session which followed a short course on reflective practice. The material is discussed more fully in Mayo (2001). My specific interest at the time was in evaluation, in particular in whether, and how, students' awareness of their own learning, involvement and engagement throughout a course might enhance both their participation and the teacher's ability to adjust teaching strategies to the same end. Brookfield's second lens on practice (the lens of the student) was the focus of my attention.

The student lens

The short course, *Reflecting on Teaching and its Constraints* (RTC), was a taught course within a masters level qualification designed for practising teachers (MTchLn, gloss 3, above: 14). It ran for three sessions, each lasting 3 hours, between November 2000 and February 2001. The course represents one 4 credit (40 student work hours) module within a taught course. The curriculum involved an exploration of texts that were chosen to promote reflection on, and discussion about teaching practices: Brookfield (1995) and Smyth (1992) (both discussed in chapter 4) were key texts.

Students were required to develop a portfolio of work that showed that they had trialled various forms of reflective practice. The format was not defined and students were encouraged to be as varied as they wished; where their strategies did not involve writing they were encouraged to note their learning in some written way. The final submission was a 500 word critique of the processes of critical reflection based on their experiences in the class and their experiences in developing the portfolio. This work was submitted within the month following the final session. It was marked and returned when all submissions had been received.

Ten teachers enrolled in the course, all completed it, and six of these attended a voluntary recall morning for two hours on a Saturday morning in June 2001. I advised the teachers

about this opportunity in a letter posted with feedback on their assessed work. My interest was in trying to learn, together with these teachers, more about what it might mean to teach in what I had begun to refer to as an "Engaged Learning Space." My aim was to find a way to engage the teachers in discussion about shared interests in classroom climate and pedagogy. The nature of the discussions to come was implied in the note (see exhibit 6.3.1) that I sent them regarding the breakfast workshop: this aim is very different from calling the students (teachers) back in order to evaluate my teaching.

I was trying to tempt the teachers to attend by interesting them in a topic that had already attracted their attention during the classes. I had known the teaching sessions had gone well and that a lot of enthusiasm had been generated among the students involved in the course. I had been alert to ongoing evaluation of learning during class: I had used Brookfield's (1995) Critical Incident Questionnaires⁵⁸ to learn about learning within the class, and to teach the class about using this process; I had invited summative, open evaluations at the completion of the course and had summarised these; I had read their required assignment work. All of these indicators suggested that we had managed to bring our interests together and to create a highly effective learning space. I wanted to understand more, and to tempt the teachers to think more about what kind of learning space we had created, and might wish to create in the future.

⁵⁸ Gloss on Critical Incident Questionnaires

Variations on Brookfield's (1995) Critical Incident Questionnaire (CIQ) have become important in my teaching. I find the tool is helpful in shifting the locus of attention of students onto their own learning strategies. This commonly enables them to undermine myths they may have developed about their own ability (or inability) to achieve. The questions suggested by Brookfield are:

- 1. At what moment in the class this week did you feel most engaged with what was happening?
- 2. At what moment in the class this week did you feel most distanced from what was happening?
- 3. What action that anyone (teacher or student) took in class this week did you find most affirming and helpful?
- 4. What action that anyone (teacher or student) took in class this week did you find most puzzling or confusing?
- 5. What about the class this week surprised you most? (This could be something about your own reactions to what went on, or something that someone did, anything else that concerns you.) (Brookfield, 1995: 115)

Exhibit 6.3.1 My invitation to Teachers (Students) to take part in an a conversation about pedagogy

••• I have really enjoyed teaching this course and working on some of the issues it raised for me as I continue to try to understand the relationship between Critical Reflection and good teaching practice.

I continue to question how it is possible for
a classroom
to become a space where
the issues that concern teachers
(ie both you as students and me as a lecturer)
can be addressed in ways
that challenge assumptions
while at the same time
retaining safety for learners and teachers
and also getting through the prescribed curriculum.

There are issues in here about
who sets the curriculum,
who plans the pedagogy,
what the role of the teacher is,
how key issues that restrict learning can be identified
when we may not be conscious of them ourselves
— etc etc etc.

Are you interested in continuing to talk with me about some of these things? I am interested in possibly talking on the email with some of you, and also I would like to shout breakfast for you on Saturday 9 June between 9.00 and 11.00am. There is absolutely no need to be involved. If you are interested though, you will be contributing to my own research.

I will email you to ask if you would consider being involved.

(Mayo, from a letter to students, March 2001)

We began the session with some food, drinks and conversation then assembled on the low seats around the whiteboard at the other end of our large learning space. Three main activities were to occur over the next hour and a half: an introductory discussion in which I introduced and we talked about some of the key ideas that would focus our thinking; a half hour session in which a colleague, Adrienne Roberts, would talk with the group, in my absence, about their shared experiences of a learning space; a session in which I involved

them in a group activity where they further refined the ideas we had been discussing; and a wrap up time at the end of the two hours. I describe and discuss these sessions in turn.

An Engaged Learning Space as an emerging-object.

My hope was that as participants, we would all move forward in clarifying the notion (coined for the day, built upon hooks' (1994) notion of engaged pedagogy) of an *Engaged Learning Space*: this was the name I gave to what I have since come to think of as an emerging-object.

Within this section I provide a description of the findings of the group as I recall them, based on my record of them at the time and subsequent conversations with Adrienne and to a lesser extent, other participants. I am not seeking to provide an detailed account of events as they occurred; instead, I am trying to describe the kinds of interactions that can contribute to the production of an emerging-object. The outcomes of three different approaches to creating meaning are described.

An Engaged Learning Space as an emerging-object

Exhibit 6.3.2 shows the components (first column) of an Engaged Learning Space as I presented them to the teachers. The descriptions in the second column give an indication of the kinds of ideas I introduced and we discussed, and the concepts (third column) give an idea of the discussion or agreement that evolved as the group talked over the three components. This figure summarises about half an hour of conversation which included some of the ideas (described above in exhibit 6.3.2) arising from postmodern theory and critical pedagogy.

I was pleased with this discussion as a tool for clarifying ideas. The *components* served us well in allowing for discussion surrounding, firstly, engagement, critical pedagogy, and the location of learning (we talked, also, about settings outside formal schooling where learning occurs). This discussion alerted us to situations which may be very structured and focused where listening and watching were dominant activities of the participants (as in a concert): it is not necessarily the case, we decided, that engagement means active participation in the sense of speaking and moving. Learning occurs in many settings.

Exhibit 6.3.2 Components of an Engaged Learning Space

Component	Description	Concept
A place where	- it may be within formal schooling or adult or early	'Wanting to be there and
people want to	childhood education – or it could be outside the formal	wanting to be involved' is
be	education system – in casual activities or learning on the	engagement
	job, or fishing, or playing a sport.	
A place where	- whatever is happening affects two things. It affects	Learning has occurred
learning is	theorising (or cognition or ideas or how we make sense	when ideas and/or future
important for	of the world) so that the learner's thinking is somehow	action are affected by the
the learner	affected by the experience. And secondly it affects	process.
	future practice (or behaviour or action or skill or what we	
	do in real life).	
A place where	– some person or group of people has responsibility for	I referred to the person
there is some	fostering the learning. This means that the learner (as in	with the agenda as a
organisation	early childhood) may not be conscious of the process.	pedagogue. About 12
related to	Or that the 'teacher' could be, for example, a	similes were found for this
learning –	grandparent who is not a trained teacher, but who is	term – ranging from
someone has	passing on family or cultural knowledge to youngsters as	teacher or lecturer, through
responsibility	they enjoy each other's company. The link is that there	to a catalyst, midwife,
	is a pedagogical agenda of some sort being lived out.	tutor, facilitator.

The second component, a place where learning is important for the learner, opened up discussions that clearly have a pragmatic tendency. The importance of learning depends on the value the student places on it, and that, we decided, was related to the ways in which the student might see the learning as having future value. I wonder, now, in retrospect whether we missed discussing the notion that learning could simply be fun at the time, with no consideration of future value. I wonder, too, given my focus on an emerging-object, whether there was scope here to consider the learning of the collective as a motivating force: the notion that we were, together, with everyone's perspectives being sought, trying to make sense of an Engaged Learning Space was, I believe, highly motivating. It was not only the professor (hooks, above: 249) who genuinely valued everyone's presence, it was the entire group - we were seeking to understand each other in the interests of our coconstruction.

Discussion around the third component focused our attention on teaching, or leading, or facilitating learning. The variety of similes for the word pedagogue (derived from pedagogy, with barely an ironic nod in the direction of its dry, strict connotations) surprised us and alerted us to the variety of roles that teachers (in the broadest sense) take on. We did not, however, include the term Latour (2002) has since introduced me to, that of diplomat (above: 150).

What makes and what breaks an Engaged Learning Space?

In the second half hour the session was taken by Adrienne who built on the idea that we (the reflective practice class and I) as a group had developed a learning community that had some special characteristics: what, she asked, contributed to the development of that space, and what can break that space? I left the room at this point.

Exhibit 6.3.3 shows the class after this exercise, when I returned, camera in hand. Adrienne is at the whiteboard where the summary of the discussion appears (this material is legible in exhibit 6.3.4). The group were given the option of sanitising the whiteboard and deleting anything they felt I should not hear about before I returned, but they decided that there was nothing in the discussions that they had with Adrienne that they felt I should not know about

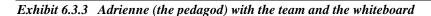
At the time I wrote the following notes. They are included here to give a flavour of the session.

Adrienne's session produced a whiteboard of material. The atmosphere when I rejoined the class was warm – it felt as though everyone had had an enjoyable and fruitful time – Adrienne was named as a pedagod (term thanks to Tania) – and the group told me what an excellent session it had been – and how skilled Adrienne was at that task. They were clearly very pleased with the outcome on the whiteboard – and they all wanted to keep copies of what was written – because they were things they "constantly need to keep in mind".

The whiteboard itself (exhibit 6.3.4) contains detail of the emerging-object, an *Engaged Learning Space*, or a *Community of Learners*. A discussion of the findings is not necessary at this point: the purpose of this writing is to demonstrate that a variety of strategies can be used in order to create data within a working session. This data is then available to each individual for her own, personal construction of knowledge related to her

own praxis: the findings on this whiteboard have opened up fresh avenues for us all to explore. One example is in relation to *backloading* (Shor's strategy to:

restrain the teacher's didactic voice so as to generate student expression as the foundational discourse. (Shor 1996: 41)



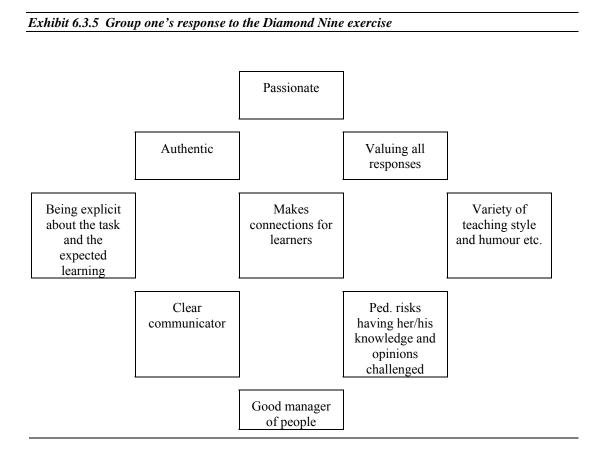


Backloading information and introducing fresh theory after students have expressed their own understandings can have a negative effect: where students are required to state their tentative ideas and are then provided with a better explanatory model, it can seem as though they have been put at a disadvantage by needing to explain their ill-formed theories before they were given access to existing understandings. This raises questions around the effects of some aspects of constructivist pedagogies where students are required to state their understandings before established theory is discussed: might this strategy of feeding information in on the back of student expression, if used too crudely, undermine confidence?

The particular skills that enabled the summary on the whiteboard to be created are worthy of consideration. Adrienne has the ability to listen with interest and curiosity to the ideas of others and to promote discussion in classrooms settings: I try to copy her style as I talk with groups. Other teachers have similar skills, I am sure, but perhaps part of Adrienne's strength comes from her training and experience as a counsellor. These kinds of diplomacy and facilitation are important within a plural society where greater attention will be paid to collectivity. I suggest, therefore that these skills need to be fostered in classrooms so that all participants are encouraged to share responsibility for classroom dynamics, all take a part in constructing emerging knowledge within some form of Engaged Learning Space which reflects the values of an engaged pedagogy (footnote 55, above: 248).

The diamond 9 activity

In the third section of the morning's investigation into the nature of an Engaged Learning Space, I asked the students to work in smaller groups and then to report back to each other. I asked the participants to brainstorm and write on small postit notes, in groups of three, some words that might describe the qualities and attributes of a pedagogue within the idealised learning spaces that we were trying to imagine together. The groups generated between ten and twenty of these words. They were then challenged to classify them using a "diamond 9" strategy (Race, 2000) in which the most important nine postits in their collection are selected and displayed so that the single most important attribute appears at the top, then the next two, and so on as illustrate in exhibit 6.3.5.



The responses of the first group are displayed in exhibit 6.3.5. This array is worthy of personal comment: I was saddened when I saw and heard this array discussed because it seemed so alien to me, yet I valued these things, indeed, I hope I modelled these things. Why, then, was I disappointed? What was missing? Making connections for learners

could have troubled me, because I wondered if this might undermine the responsibility of the learner to be active in her/his own efforts to build knowledge, but it was more than that. I realise that my sadness concerns what is missing from current discourses within teaching: the play of postmodern discourse analysis, the play of irony. When this exercise was carried out, I had recently read Erica McWilliam's (1999) *Pedagogical Pleasures* and recalled her analysis of the "proper pleasures" (rewards or satisfactions) a teacher gains through the act of teaching (McWilliam, 1999: xi):

Pedagogical Pleasures is written with the intention of troubling a burgeoning, progressive literature about "best practice" and how it might be achieved through pedagogical work. It is an irreligious, even profane text, in that it refuses to either endorse or oppose such work. (McWilliam, 1999: x)

We were, I realised, as I saw the chart above emerging, in danger of reinforcing current myths about best practice, despite the fact that we had talked about quite non-trendy, non-PC Engaged Learning Spaces such as some lecture presentations. This brought to the fore the realisation that teachers are conditioned in this era to think of teaching in a particular way:

Professional practice courses, policy documents, teacher association meetings, school mission statements, media reports, parent-teacher association interviews - all these are means through which teachers come to know what is most powerfully true about good teaching in a particular historical time. (Ibid: 71)

And that we live in an era where:

It is the teaching/learning relationship, as an interpersonal relationship between an individual teacher and an individual student, that is the crux of the matter of excellence.

The importance of "getting to know the student" is one such truth. (Ibid: 50)

McWilliam refuses a tale "of unbroken progress for the history of pedagogy" (ibid: xi) and notes "the irony deficiency that is the hallmark of so many texts on teaching" (ibid: x). All of which, it occurs to me as I read the array in exhibit 6.3.5, I was reinforcing through the activities of the morning. This would not matter so much if the participants, also, had access to post-structural understandings about the ways in which the context and the individual are mutually constitutive (Walkerdine, 1988) because we could discuss the social context of the construction. Instead, I am stymied - I am not here as teacher/instructor - this should be part of an *ongoing conversation*, something that

permeates all our discourses about teaching: we need a constant questioning of the assumptions we bring to our theorising.

What does it mean, I wonder as I look again at the array above, to "make connections for learners"? What does it mean in theory? What does it mean in practice? Does it mean that the responsibility for learning rests with the teacher? - surely not, yet that is the impression I get from my low-achieving year 12 class: it is what the teacher does that will help them learn, not what they do. I wonder: "might we be disabling our young people by being such nurturing teachers?" I want to talk more with these teachers and others - I want to understand more - but not in order that I can come to understand them, rather - so that we can together create understandings that might help our failing students. At the time I wrote:

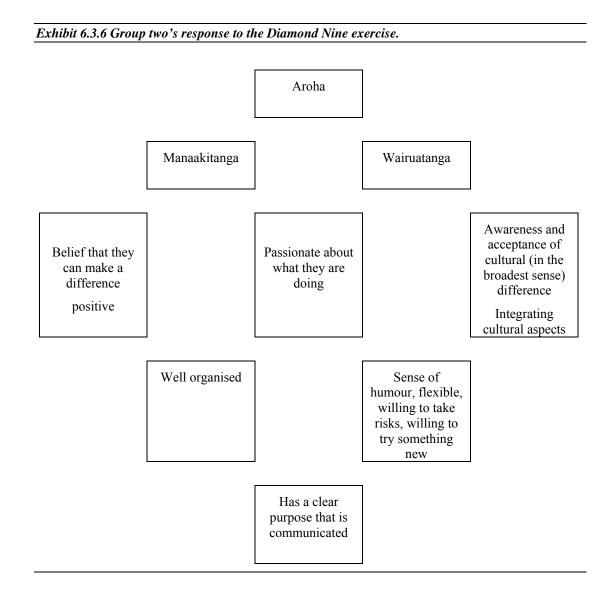
What interests me here is that ... this is mainly about creating a warm fuzzy environment which is very controlled (the pedagogue has responsibility for the atmosphere) where the role of the teacher is: managing, risking, varying teaching style, controlling, making connections for learner, being explicit about the task, valuing responses [If a child is trained to have every response valued then what does that do for them in later life when the environment is less sheltered? The children of the powerful are valued but their responses are challenged.]. The question I asked was about the behaviour and actions of the pedagogue: did that question restrict these people from talking about the responsibility of the learners? Creating a community appears to rest continuously on the shoulders of the pedagogue. This is not about enabling students: it is about cushioning them ... This teacher is incredibly kind, manipulative and power-sucking. (My notes, June, 2001)

It gets worse - the comment that follows was hidden (as a comment) under the text of the Word document. It was clearly something I did not want to be public.

[Expletive, not for publication here] – because these are some of our really lovely teachers and people. This warmth and empathy (under this analysis) is as damaging as the hegemonic overlord*57. And that is partly what I am challenging in myself. I have pondered repeatedly about my challenges to cosy assumptions, and the effects of them, perhaps I (we) are not challenging enough. (Ibid)

I question many aspects of current rhetoric about relationships between teachers and students, but I have no ongoing forum for discussion because there is little space for such discourse. Perhaps that is what encouraged me to invite these teachers back, to have a chance to talk about teaching because there are so few other opportunities. How, I wonder,

can I propose a form of research that will address this need for discussion among teachers about the implications of their/my practice and assumptions? ⁵⁹



⁵⁹ Gloss on Hegemonic Overlord

Peter McLaren (1986) refers to three micro-rituals of teaching: teacher-as-liminal-servant (where students respond with a sense of immediacy and purpose to the teacher's performance); teacher-as-entertainer (where students are actively engaged but remained as viewers); and teacher-as-hegemonic-overlord (where the student is not provoked to respond to the teacher's instruction but remains in a "numbing state of physical and emotional emptiness") (McLaren 1986: 114).

The dynamic that creates this state of emptiness is all too common, according to McLaren, and I see it in my own work with adolescents whom I cannot reach/teach. Servant, entertainer, overlord! Are these the only options? Where is the navigator, the guide, the tuakana (older sibling of the same sex)? Where is the community-of-learning, the whānau (extended, nurturing family), the shared investigation into common problems?

I return to the story of the arrays of postit notes. The second array was quite different. The strategies the teachers used to solve the problem of having to discard eight of their words was also different: they realised that they could process their ideas and create more generic language to suit the task so that their discards were not lost, but alluded to within the postits they retained.

This array is quite different in that the student as well as the teacher is, through connotations within the Māori words, constructed as having responsibilities within the community. The student is no longer an object (as in exhibit 6.3.5) whose responses are valued, is given explicit instructions (is expected to conform in specific ways), has connections made for them, may challenge (provided the pedagogue is one who will/can accept such challenges), and is managed. Instead, in exhibit 6.3.6, the student is a part of a group, a collective, a whānau, where values of aroha (love, see above: 17), manaakitanga (respectfulness / hospitality), wairuatanga (spirituality)⁶⁰ are paramount, and where difference is respected.

Both groups point to risk-taking: the "passionate" group suggests that the teacher might risk having her/his knowledge and opinions challenged whereas the "aroha" group links

⁶⁰ Gloss on manaakitanga and wairuatanga

Manaaki: show respect or kindness to, entertain. (Williams, 1971)

Wairua: spirit. (Williams, 1971)

The following description of a sports tournament organised annually by the Whakatohea Iwi of the Opotiki district gives situated meaning to the terms manaakitanga and wairuatanga. The tribe has initiated the tournament in order "to encourage and celebrate excellence, enhance competition, and to promote a healthy lifestyle." One of the important spin-offs is that it also enables "the practice and application of all the traditional values and principles of whānau, hapū, and iwi." (Robinson & Williams, 2001)

The aim of the tournament is to provide a platform for the exercise of whanaungatanga* (kinship). This concept traverses a diverse range of spiritual and physical experiences that draw on an equally diverse range of emotional responses, all of which are rooted in Mäori culture. Opportunities for the expression by Mäori people of this cultural practice in its natural environment (i.e. as a natural expression of Mäori norms and values) are very limited. This also applies to other important principles and the practice of manaakitanga and wairuatanga (spirituality). Manaakitanga (hospitability) is that state within which one accords total support, respect and dignity to one's kinsfolk and fellow human beings and wairuatanga is the spiritual state within which these practices are intertwined. The opportunity to practise them unencumbered contributes significantly to the level of participation. (Robinson & Williams, 2001)

Whanaungatana (building partnerships with whānau) recognises the centrality of whānau in Māori early childhood care and education. (Richie, 2003)

^{*} Whanaungatanga, in an educational context, is used to refer to the links between educational institutions and families:

risk-taking with humour and novelty. If the teacher tries a new idea and it does not work, does the group laugh together, or are the teacher's knowledge and opinions under threat? In a transmission pedagogy where the teacher is located as the one who "knows" and "manages behaviour of the students", a new idea that fails is problematic to the teacher as an individual: authority is challenged. In an engaged pedagogy, where the collective commitment is to the group and care (aroha) within the group, a new teaching idea will not fail in the way it might in a transmission pedagogy: it may create laughter (or anger. or consternation), and the teachers' knowledge and opinions may be challenged, but collective interests of the group, its spiritual well-being (wairuatanga) and the respectfulness (manaakitanga) makes risk-taking a less threatening operation for an individual. In this context, risk-taking is not only less threatening, it is less likely because the expectation would be that the group would have an understanding of what is being attempted, and the responsibility for the experiment would be shared.

I base these understandings of collectivity on both my contacts with Māori and my own experience in classrooms where we, the class and I, have managed to develop a collective sense of care and concern for each other. In the latter case, with particular mathematics classes, it has been possible for us to do adventurous things because the level of trust and care of the group for the group and for learning the curriculum has meant that risks were minimised. In the case of Māori, I recall Linda Tuhiwai Smith's observation that, in precolonial times, whānau was the core social unit and remains a persistent way of living and organising the social world (Smith, 1999: 187). I recall also, the optimism of Māori colleagues who assured me that a course we were developing could not fail: because the course (TL820, 2001) was being developed collectively and was cared for by the people who had developed it, many of whom would study within the course, it had developed a spirit, a wairua, a life of its own, which would not allow it to fail.

When the "aroha" group reported back the two Pākeha*61 teachers spoke of the value of having the Māori teacher in the group, Gipsy Foster: when they were struggling to say something, Gipsy had a word to cover the meaning they were seeking and to cater for the values the group was trying to express, values related to the well-being of a class as a whole.

This insight into the importance of collective well-being, concern and respect for spirituality resonated with us all during the report back time. The "passionate" group were

accepting of the values portrayed and commented that they had talked of similar things: "We wish we had had the words" they commented, (at least I think I recall that kind of comment, but perhaps my memory plays tricks on me, perhaps I am romanticising the importance of this interlude). My hesitation, within the last sentence, illustrates my ambivalence about this interlude: am I creating an illusion, an impossible dream about what can be achieved through a more collective approach, or is this an illustration of how a fresh vocabulary might foster fresh ways of thinking and acting? Of course, given the tenor of the conversations that thread through this thesis (Burr's notion of both/and, above: 81, in particular) I acknowledge that neither statement is correct, both understandings have pragmatic value within specific contexts, and that what is important to me, as practitioner, is to investigate the implications of these kinds of ideas for classroom practice.

The groups talked about the importance of collective values within Kōhanga Reo⁶², we paused and wondered about the implications of this for teaching and learning and the understandings children develop about their relationship with the group as a whole. How different it must be for children whose early experiences have been in Kōhanga Reo and who live within the care of whānau, to cope with the individualistic expectations of many secondary school classrooms. hooks, writing in the North American context, notes that

61 Gloss on Pākehā

King (1991) describes the contributors to his book, *Pākehā: the quest for identity in New Zealand* in these terms:

They are all Pākehā - citizens of New Zealand whose cultural and genetic origins come mainly from Europe. They derive their identity mainly from the New Zealand location and experience ...They regard their Pākehā culture as one that is becoming - like Māoritanga - intrinsic to New Zealand. They do not feel threatened by the Māori cultural renaissance, nor see any reason why, if current social and cultural inequities are addressed, Māori and Pākehā New Zealanders should not live discretely and harmoniously, valuing their own traditions and respecting those of the other. (King, 1991: 7)

62 Gloss on Kōhanga Reo

Kōhanga Reo are early childhood centres which foster the development of Te Reo and Tikanga Māori. The Kōhanga Reo National Trust supports Kōhanga Reo by investing in:

mokopuna [grandchildren], whānau, and their cultural infrastructure of language, kinship, relationship management, whānau learning, whānau decision-making, and community interdependence. It has also involved supporting the educational, health and communication needs of Kōhanga children and whānau so that they can successfully participate in and contribute to Kōhanga Reo. (http://www.kohanga.ac.nz/aboutus.html)

Many of the black students feared that learning new terminology or new perspective would alienate them from familiar social relations. (hooks, 1994: 188)

Might some Māori children fear learning "school culture"? While it is expected that children should develop both individual and collective skills, a bias within classrooms toward the individual, and the exclusion of the collective, can be alienating and confusing for those who are used to being secure in social relations that are more communal.

In relation to quality, neither group produced better responses than the other. Their value comes as a tool for fostering conversation and identifying different ways of constructing meaning. The Diamond Nine exercise served to promote engaged discussion within groups and between the groups, and these discussions have served me well in helping me articulate my emerging understandings of collective ways of understanding classrooms. Each group appreciated the work of the other; they saw great similarity in their ideals; when they talked about the differences, the paucity of the English language in relation to collective values was discussed, and we also touched on the idea that all these values we had presented are quite different from those that might have been gathered in the past, or those which might be treasured in the future.

I envisage this kind of conversation taking place in an ongoing praxitioner collective. In a more enduring conversation (one session of two hours was merely a taster) there would be less need for specific activities to foster conversation, yet these specific tools have value in that they alter the mix of conversation and encourage creative input. The values of *aroha*, *manaakitanga* and *wairuatanga* would be essential aspects of the collective.

I am not suggesting that *praxitioner collective* should be places where only unadulterated goodwill and fellow-feeling should be expressed. Praxitioner collectives must not become places where anger is buried because the health of the collective relies on it being resilient and adaptive: anger is a signal of oppression or injustice and needs to surface and be dealt with. hooks' comments are helpful here too: they highlight the depth and richness that occurs within heated exchanges.

I have found that students from upper- and middle-class backgrounds are disturbed if heated exchange takes place in the classroom. Many of them equate loud talk or interruptions with rude and threatening behaviour. Yet those of us from working-class backgrounds may feel that discussion is deeper and richer if it arouses intense responses. ... Few of us are taught to facilitate heated discussions that may include useful interruptions and digressions, but it is

often the professor who is most invested with maintaining order in the classroom. Professors cannot empower students to embrace diversities of experience, standpoint, behaviour or style if our training has dis-empowered us, socialised us to cope effectively only with a single mode of interaction based on middle-class values. (hooks, 1994: 187)

This is an important issue which has not, to my knowledge, been addressed within discussions of pedagogy. I suggest that "the quelling and silencing of anger" could well be added to the whiteboard list of things that break an engaged learning space: by quelling and failing to address anger we perpetuate a double harm to working class students, if hooks is right: not only do we bury the tensions that need to be addressed in any nurturing environment, we middle-class teachers dis-empower a particular form of communication by demanding particular middle-class forms of interaction.

I conclude that it is the unruliness of knowledge that challenges us now, and that, as we move into a more plural understanding of knowledge and its social construction, there is a great need to foster collectives where substantive issues are addressed, and where the values of the group are agreed, where diverse forms of communication and diverse perspectives are not only tolerated but actively cultivated.

Section 6.4 Praxitioner research in practice: Seeking collective praxis

My aim, in this section, is to suggest ways in which shared, reflective investigations into praxis might invite teachers to open up questions that are generic, challenge existing practices, are sensitive to the presence of hegemony, and are aware of the socially constructed nature of knowledge. I report on the ways in which the session I have described has affected my personal understandings of collective pedagogy; I do not seek to speak for the understandings of others, or of the group as a whole, because any such collective statement could only emerge from within an ongoing conversation⁶³. My locations as I write are, therefore, those of (a) individual, (b) praxitioner, (c) researcher (in that I report publicly on my findings).

⁶³ Gloss on ongoing conversations

Part of my desire to create a discourse around the area of collective praxis is so that the conversation might become ongoing even though any specific group may not meet again. The institution in which I work, and those with which we work closely, are in a position where a discourse such as this could well emerge.

My aim is to respond to Stronach and Maclure's challenge to address, rather than arrest, the trajectories of meaning as they arise: this means that any tentative analysis, such as the following, is part of an *uncertain trajectory* within the collective construction of knowledge. I note several points that arise from the session and related work.

Toward understanding and evaluating pedagogy

I found it useful to focus on pedagogy rather than the acts of teaching and of learning, which are constructed largely as individual activities, when trying to evaluate the effectiveness of our interactions. The insights that enhanced our understandings of the pedagogical setting arose when students were analysing their own learning. We analysed our own learning when we had used Critical Incident Questionnaires (above: 260) during regular classes, and shared discussions during the workshop sessions on the recall morning, and in my case, during later conversations and reflective writing.

None of these strategies is normally a part of the summative evaluation of teaching and learning; routine evaluations did take place, but they provided us collectively and me individually with very little information that might influence our shared pedagogy. It seems to me that my learning (as a teacher) about what strategies might enhance the operation of the group as a learning collective was much more effective when it was oblique rather than direct. By this I mean that I gained ideas about what to say and do as a pedagogue by listening to the conversations where the participants talked about their own learning (as in Critical Incident Questionnaires (above: 260), for example), or where the collective tried to describe an emerging-object (such as an Engaged Learning Space), more than I did through more direct forms of evaluation. I learnt about my own teaching (and my own learning) by being part of shared conversations about shared pedagogy; rather than receiving direct advice and feedback, I was constructing meaning within an engaged learning space where we were seeking to share understandings rather than to reach agreed This interaction between collective discussion and individual meaningconclusions. making is yet another instance of a tangled hierarchy.

Learning goes on after the event

Students (i.e., the students in the earlier course, but the teachers in this recall morning) indicated a wish, in this age where people rush from commitment to commitment, to conclude their thinking on a workshop within that workshop time. One suggestion was

that there be 20 minutes of reflective writing time at the end of each 3 hour session. I realise that I have tended not to allow the use of class time for activities that could be carried out alone: I use reflective writing time in class very little even though I know how much it is appreciated, and then only when the results will somehow contribute to a later part of the session. I have pushed to include as much as possible in a session so that more information be delivered, so that the time can be filled with collective interests, so that more collective work can be squeezed in. Thus I create tension. If the learning space I create is as rich as I believe, then quiet time is needed for students to assimilate ideas and to test them out with colleagues. I am *not* suggesting that this kind of reflective time is needed in all classes, but that in those where a multitude of different perspectives have been introduced I need to stop formal activities sooner.

There is also the matter of closure. Learning goes on after the event. Ideas that are discussed (or written about) in class spark off later thinking: these notions affect future thoughts and actions. I recognise more clearly now that an Engaged Learning Space needs closure; for people to move on to another space without stress, there needs to have been an end period, a time of farewell. This then raises questions about how to end a session, and the ways that the transitions are handled within Engaged Learning Spaces. At the end of a stimulating, engaging session, perhaps I need time to talk with Ernest, Hélène, Karl, Meanui and others about the implications of the discussion for them: and I need space to think about the future implications for my praxis. Perhaps others do too. This insight affects my teaching.

Toward collective pedagogy

I have been discussing some of the pedagogical issues raised, for me, by the discussion of the *recall morning*. The nature of the pedagogy is, I argue, an important factor in the planning of a course, or a teaching session: it is as important as the learning outcomes, the content of the curriculum, and the assessment requirements. My argument is that understandings about pedagogy grow within the acts of teaching and creating theory around teaching, and that discussions around this praxis should be at the heart of ongoing professional development. The kind of pedagogy I refer to is by no means unique, yet it is substantively different from other forms which are, for example, more presentational. I have not set out to analyse or contrast different forms of teaching: this kind of discussion occurs in the literature, and is discussed within teacher education. My observation is that

pedagogy needs to come to the fore and gain ascendancy within educational discourse: assessment has dominated educational rhetoric and professional development in recent years - before that it was curriculum. I suggest that pedagogy is likely to be central to the next wave of research and development within education; I support that development because, within it, I see opportunities to enable teachers to find voice in ways that more centralised developments of (a) curriculum and (b) assessment have only marginally enabled.

On power and authority

Questions of power and authority in pedagogical settings have become ever more complex as the nature and ownership of knowledge is contested. I may gain important insights by reading the work of scholars who seek to understand theory in order that it might be *applied* to practice (a very common approach, and a legacy of the reification of objectivity), but their work cannot guide me here. I need to read the work of *teachers who theorise*. (Hence my interest in the work of critical practitioners such as Brunner (1994), Shor (1996) and others.)

I assume that, within an Engaged Learning Space, the teacher and the students are all engaged in learning about the curriculum, and about each other's understandings of the curriculum and of helpful pedagogy. In this situation, not only are the participants interested in their own individual achievements, they are also interested in the views of others in the group and in establishing a community of learners. The flow of power within a community of learners is restricted by (among other things) the requirement of the teacher to make summative assessments about the performance of the students. This point was noted by Adrienne on the whiteboard (above: 266) with words like these:

System clashes with values the academic environment has the sense of playing the game ... the pass

there's always consequences ...

summative assessment becomes all

This raises questions about the use of power within the domain of teacher education, and the relationship between what the literature argues is good practice (or "best practice" as if such a thing could exist) and the ways participants are located by the dynamics of classroom relationships and the assessment procedures.

I raise the question of where and how these issues are discussed among teachers; I do not set out to contribute more to the extant literature.

Toward wider issues

A pattern that occurs within the literature on reflective practice is the tendency for reflection to become focused narrowly on technical aspects of the teaching process (see for example Mayo, *et al.* (2000) and Hillier (2000)), at the expense of consideration of the wider democratic considerations that Dewey (1916) had envisaged. This has been demonstrated above. The issues that have focused my attention have been related to my practices as a teacher, that is, technical issues. Our habit in education seems to be to assess the students and evaluate the work of the teacher. Could we not, should we not, begin to view the classroom in a different way and evaluate or reflect upon the ways that the learning spaces we develop together as teachers and students can become engaged learning spaces?

The way we bring closure to a learning situation is important to the ways in which learning goes on after the class. If the students do not have an opportunity to ponder on, or record, their learning before they leave the room then, in this age (of performativity) the ideas that emerge for them during the class are likely to be lost.

Closure within engaged learning spaces: A focus on questions

Engaged learning spaces gain sustenance from questions, whether they are critical questions (see for example Smyth (1992)), questions that tease at modernist assumptions (Parker 1997), or questions that call for comments on affective (emotional) aspects of a learning session (Brookfield 1996): all of these have been discussed above (see chapter 4). Exhibit 6.4.1 (below) contains a set of four questions which are designed to address the tendency for reflective conversations to turn inward, and for reflections and analyses of teaching to focus on the immediate, constrained world of pragmatic necessity. The questions are designed to guide participants to consider the implications for their own practice of the ideas under discussion in the session. The strategy is to ask high-order, abstract questions late in a session and to allow the participants time to reflect on these questions; these questions would be built into reflective time in the last part of a teaching session; they would not be discussed *per se*, but would support a transition from a collective space to more individual spaces; it is at this point, I intuit and suggest, that we

might each be able to engage in these political questions. The questions were introduced in a workshop session I ran at the Institute of Learning and Teaching Annual Conference (Mayo, 2001). Little came of the activity because of lack of time: they were no more than an invitation to consider these broader issues.

The questions in the body of exhibit 6.4.1 were, therefore, designed to tempt participants to think about issues other than their personal teaching practices: issues of social justice and of social construction. The layout in exhibit 6.4.1 shows how the questions were constructed. Firstly, the distinction between individual constructivism (first row) and social constructionism (second row) highlights the need to not discard, but to move beyond, the self-centred questions that a practitioner might ask of him/herself (i.e., what is happening for me, personally) and to ask wider questions about how actions and society are mutually constituted. The second distinction (between the columns) pertains to Lyotard's argument that the search for *paralogy*, or *dissensus*, is a goal within "a politics that would respect both the desire for justice and the desire for the unknown" (Lyotard, 1984: 67). The questions in both columns are dynamic in that they anticipate that change in action is likely to be a consequence of reflection. The distinction between the two columns is: those in the first are the questions commonly addressed within technical aspects of reflective practice as discussed in chapter three (these point to innovations within the existing assumptions and structures); those in the second are paralogical in that they point to structural changes.

Exhibit 6.4.1	Reflective questions for	praxitioners engaged in an Expotition
	Trender of questions to	prumeroners engageur in un Emporteon

	Toward stability and innovation: identifying what is valued and might be developed further	Toward paralogy: identifying what might be questioned or challenged - leading to structural change.
Personal constructivist level (individual responsibility)	(1) In what ways does this work help me to develop and sustain cohesion in my learning and actions?	(2) In what ways does this work help me to identify and question my assumptions and habitual behaviours?
Social constructionist level (pragmatic responsibility)	(3) In what ways did this work help us to sustain and enhance existing stability and power relations?	(4) In what ways did this work help us to identify and challenge hegemony and inequity?

Questions such as these might enable teacher educators who are working with practicing teachers to develop learning spaces that are more collective, more reflective, better able to relate theory and practice, more politically and critically aware.

Exhibit 6.4.2 A brief report on a snippet from a later conversation

Context: The following note was one of some twenty postit notes passed to me at the end of a workshop presentation I made around the investigation I have just described. The questions in exhibit 6.3.2 were included within the presentation (Mayo: 2001), and a request for some comment or response to the ideas of the session (I provided postit notes) was also built into the session as part of a later investigation (not reported here) into praxitioner research.

Writer (real): Elaine, I take from this workshop "evaluation as continuing conversation" rather than "evaluation as single discrete act"

This response reflected the tenor of the session, my focus had been on forms of evaluation, and the notion of ongoing discussion about pedagogy had raised some interest and discussion in the group. The response could be linked to the second question where the level remained personal, and the possibility of a different perception of evaluation is opened up through a shift from "discrete act" to "continuing conversation".

This response does not, however, take us beyond the first personal, constructivist level of figure 44.2. A response that indicated a move toward more political awareness of the issues under discussion would need to also raise discussion at the level of pragmatic responsibility. It would need to raise, at the level of social constructionism, questions about power and hegemony.

A praxitioner might ask: "How does this development/practice challenge existing hegemonies: what does this do for social justice?" Such questions remind us to challenge existing assumptions about relationships within classrooms, and schools, and education systems at large, and society.

In this chapter I have begun to explore how a classroom might become a place of knowledge construction (as well as transmission), where the focus is on creating an emerging-object (as well as building on existing models), where substantive issues might be considered (as part of ongoing conversations), where boundaries that separate ideologies might be bridged (without undermining specialist understandings, but locating them within the specialism rather than as universal truths), where each individual takes responsibility for the collective whole (while also continuing with her/his other networks and responsibilities). I have shown that this kind of engaged learning space can exist, even if only momentarily. I recognise that many existing learning spaces follow this kind of

democratic ideal (but many don't), and I champion further, collective investigation into the ways that these pragmatic theoretical understandings might evolve in practice.

In retrospect, I see that during this session the elements of *collective praxitioner research* were beginning to emerge. We were working with a half-formed new vocabulary to create meanings that were relevant to us; the phenomenon of an Engaged Learning Space was an emerging-object within our discussions; we were all acting as praxitioners in that we were calling on and developing our own connections between theory and practice; yet we were not seeking to agree on final positions because we were not seeking to *arrest* our knowledge within some final document; rather we were *addressing* the dynamic nature of the pedagogical process and each learning from the shared praxis. This way of working together deserved a name - the emerging-object I think of as *collective praxitioner research* had its origins in this session.

The session I have discussed was short and there has been no formal follow-up, yet something was achieved in that session which needs to be built upon. A key difference, for me, between that session and similar sessions with the same group of people, related to my research interest. In that session and following it, I was able to devote time to consider the findings of the group, to write about them, and to open up other conversations as a result of my emerging ideas. I was talking with colleagues about teaching, and about ways in which classrooms might be constructed differently, I wondered more about Māori pedagogy and talked more with family and friends in order to gain understandings. I was researching my own practice, and I was engaging in ongoing pedagogical conversations with others, teachers, children I taught, family, colleagues and friends who are not particularly involved in education.

The session was short, but I have used it to generate common-sense language which helps me to proclaim that postmodern theory is helpful in understanding the complexity of our times. Reflective practice, because of its affinity with philosophy, has proven to be a useful tool to foster ongoing discussions (as illustrated by TL811, 2002, in chapter 4) which allow ideas from postmodernism and critical theory to merge with day-to-day discussions about teaching so that teachers gain fresh insights into their praxis. Only a little can be achieved in a short time, but I suggest that this kind of approach deserves more attention.

I argue that *collective research* by *praxitioners* into *pedagogy* has the potential to generate

- (a) ongoing, praxitioner theorising (where teacher-praxitioners need not concern themselves with research outputs but are engaged in ongoing discussions about praxis).
- (b) praxitioner research (where praxitioners report on their own investigations in ways that are informed by the collective discussions), and
- (c) collective understandings about an emerging object (which may be shared with a wider audience through publication, but which may also, simply, feed back into individual publications through (b) and practice through (a)).

Collective pedagogy, therefore, complements collective research: both foster collective knowledge construction, and when the interests of social justice are kept to the fore, they constitute collective praxis. If, through our collective actions and words we continually reshape our social worlds, then this approach to fostering collective praxis has the potential to enable us to re-enfranchise our dislocated communities by involving them and including them in helping us all to understand, care, and change the structures that constrain us.

287

After-words, indices and references

After-words: Rhizomic forms of writing and thinking

The thesis is finished. The after-words that follow are reflections upon aspects of it, and some reminders, for the author, of some of the work which lead to this final production.

Please do not read them as a conclusion - if you have not visited these spaces as cross-references as you have read the thesis then they are probably not relevant at all.

Toward ludic ways of understanding

Toward a definition of praxitioner research	288
Living in a Good Thesis	289
Indices and references	
Index of footnotes: glosses and afterwords	290
Index	292
References	299

After-words: Rhizomic forms of writing and thinking

I comment, finally, on a number of points that have arisen for me in the final days of producing this thesis.

1. The thesis has emerged in what I think of as a rhizomic form. The ideas I have portrayed are so intricately mingled that, even now, at the point of completion, I am able to give people different single-sentence versions of what the thesis argues: there are many pathways through this beast. The title "Toward Collective Praxis in Teacher Education: Complexity, Pragmatism and Practice" is however the solid ground around which the thesis is grows.

The rhizomic form of the writing serves a number of functions: it allows for complexity, it allows for creativity in ways that a more traditional thesis would not allow, and it creates a fractal-like redundancy so that if any section of the thesis were eliminated then the total picture would remain.

- 2. Ideas are intended to echo, fractal-like, throughout the text: sometimes a particular construct, for example "self-organising systems," takes central stage, in other places it has a more minor part, and at times it is present only by inference.
 - Each argument I have proposed is always present: I have sought to produce a holistic kind of text.
- 3. There are many places where conversations are incomplete ... there are many invitations to talk more. I fear these are rather disguised because of my need to write a thesis for a qualification: I have not been brave enough to break too many boundaries. Interesting conversations have been omitted. "Toward ludic ways of understanding" (below: 287) is a snippet of earlier writing that I presented at research forum early in 2002 but which no longer fits in this thesis. It belongs to another story. At the time I wrote it I was investigating notions about realism and truth, internal coherence, and external correspondence. Yet it is important, as I wrote at an earlier date:

The ludic excursion into more creative realms opened up conversations that I had not imagined ... I have learned that there are many people who seek fresh ways of talking about teaching and caring for their young ones, and fresh ways of understanding the seemingly incomprehensible. What fun!

- 4. I include, also, an attempt to clarify the meaning and value of "praxitioner research" (below: 288). I do not promote the construct per se, instead, I wonder about its possible value. In saying this, I do not undermine the strength of my argument, rather, I suggest that the constructs I have named within this thesis should be considered as synthetic offerings to an ongoing conversation, not as analytic arguments which I must defend. This emerging definition of "praxitioner research" guides my praxis that is enough, for now.
- 5. Within this thesis, I break boundaries and conventions, but only when I need to, and only very openly it is too tiring otherwise, and not relevant to my teaching.

An insight that needs further teasing out is the notion that text such as I have created might serve an important function within collective research. It is as though the text of the thesis itself represents the shared understanding of my collective voices in much the same way as the understandings of collective research might emerge within some kind of shared document. By allowing exhibits, glosses, and other devices (such as breaking the linearity of time and allowing later writing to talk to earlier text), it has been possible to write a text which is much more accessible than a linear argument - at least parts of it are - but then, only parts of the text are necessary (or can be absorbed) at any one time. It is also possible for fresh voices to enter the conversation at any point.

The "exhibits" perform the function of "key reference documents" that are relevant to the thesis as a whole. Exhibits might, at any time, be interpreted differently and generate different understandings, and thereby impact on the thesis itself (assumptions might be challenged, those propositions that were not questioned might become debatable).

The "glosses" are more peripheral than exhibits. They represent the stories of individual participants: they inform the Expotition (above: 227), but they sit comfortably separate from it, as separate voices which will not be integrated. Yet the glosses talk to the text, and the text talks back to the glosses (see Stronach and Maclure, 1997, above: 73). In this dynamic way, the work of the collective is affected by, and affects, each individual.

6. In all these ways, it seems that I am not "lost in a good thesis", rather I am living in one (below: 289). The distinction between thesis and reality is blurred.

Toward ludic ways of understanding

Chalmers distinguishes global anti-realism from stronger forms of anti-realism.

Global anti-realism raises the question of how language of any kind, including scientific language, can engage with, or hook into, the world. ... We are forever trapped in language and cannot break out of it to describe reality "directly" in a way that is independent of our theories. Global anti-realism denies that we have access to reality in any way, and not just within science. (Chalmers, 1999: 227-8)

A pragmatist is not globally anti-realist, as such, any more than any other scientifically educated person is anti-realist. Chalmers goes on to remind the reader that we are all, in a sense, global anti-realists: he doubts that "any serious philosopher holds that we can come face to face with reality and directly read off facts about it" (ibid 228), but this is, he argues, a weak thesis from which little can be gained. He argues that, although we cannot describe the world unless we are working within a theoretical framework we can nevertheless test the adequacy of those descriptions by interacting with the world. Claims are one thing but their truth or falsity is another.

Let me rerun those last two sentences again, but this time I shall report on a conversation I heard as I wrote them ... "He argues that, although we cannot describe the world unless we are working within a theoretical framework

"Is this a language game? Is a theoretical framework a language game?" asks Piglet who has been reading Wittgenstein.

"I think so" says Pooh.

we can nevertheless test the adequacy of those descriptions by interacting with the world. Claims are one thing

"A linguistic kind of thing!" says Piglet.

"A proposition kind of thing!" says Pooh.

but their truth or falsity is another.

"An experiential kind of thing", says Piglet.

"An empirical kind of thing!" says Pooh.

Pooh and Piglet wonder whether they are right, and whether they should consult with Christopher Robin.

In the end they decide that they are the ones who have to live in the forest - and if it works for them then it is goodenough (pragmatic internal coherence) - but they will talk it over with Christopher Robin - some day - because he understands about forests too, and he has been to school - he might see it differently - it would be worth a conversation anyway (pragmatic external correspondence).

Toward a definition of praxitioner research

Praxitioner research is research that is carried out by a praxitioner.

A praxitioner is one who reflects on the ways in which theory and practice emerge in the present as actions that are guided in some way through the interaction of belief and experience.

Praxitioner research is influenced by:

pragmatism and reflective practice

marxism and critical theory

Wittgenstein's distinction between philosophy and metaphysics,
feminist, postmodernism, poststructuralism, post-colonialism,
the New Sciences (chaos theory, self-organising systems, emergence).

Praxitioner research questions realism, the search for universal truth.

Praxitioner research is located firmly in the swamplands of practice; it is communal; it capitalises upon insights from the theoretical high ground but does not aspire to go there.

Like pragmatism, praxitioner research is not skeptical – it seeks to find value in all knowledge.

Praxitioner research is carried out in the interests of fostering a shared understanding, across disciplinary boundaries, of the possible knowledge that might emerge within fresh discourses.

Praxitioner research is neither a new research method, nor a new doctrine: it is an approach to constructing collective knowledge based on existing methodologies. It is not a new gospel - it may or may not be similar to other people's understandings of self-research, reflective practice or feminist pedagogy.

The value of praxitioner research is in the investigation that went into its creation, and in any ongoing conversations that it influences. Its job is done, my writing is finished.

Unless I, or others, see value in perpetuating the notion, it has served its purpose.

Living in a Good Thesis

Within this thesis:

[h]ierarchical and treelike thought structures give way to other metaphors: the rhizomic "body without organs" (Deleuze and Guattari in Lechte, 1994: 104)), the multiple hinge (Wittgenstein, 1969), the unstable, disorderly, chaotic borders of a cloud, the harlequin (Serres in Lechte, 1994), the logic of the new sciences (Wheatley, 1999), the carnival and the mask (Bakhtin in Lechte, 1994), the cyborg (Haraway in Gamble, 2000). (Above: 74)

These images make more sense now that I have pondered on the ways in which theory, all theory, is an attempt to describe our experience, and to agree, in some way, that there must be a shared experience. I have argued that there is a need to foster a form of creativity which celebrates difference so that we might, collectively and locally, grapple with the important issues we perceive.

For teacher educators and others, much can be gained by building postmodern theory into the ways we talk and think in our daily work as teacher educators. It is not a matter of discarding the analytic in favour of the synthetic (above: 216), nor the constrained in favour of the creative (above: 16): it is a matter of balance. Yet balance itself is troublesome, why favour balance over the fun of a jumping castle where falling over is the name of the game? Sometimes one thing applies, and at other times, another. All things are tangled, all voices are important, but not equally important: therein lies the problem.

My optimism continues, I know what I/we need to do next: I/we need to work in ways that generate the construction of collective knowledge about how to improve teaching and learning. Those things that are agreed at any one time, by any one group (the local hinge propositions) provide the central thesis around which different insights might be explored.

I/we need to favour horizontal heter-archy over vertical hierarchy, but this is no battle: both are needed. Similarly, I/we need to favour collectivism over individualism, and relativism over realism. Nothing is jettisoned - we may need to shift focus when balance (i.e., consolidation around an ideology) is restored - we will need to destablise the monster we create:

In the rush to avoid repression and the negative in the interest of unfettered creativity, it is important to ask whether ... the result of this creativity might be a decrease in war ... but an increase in the potential for violence [bullying and terrorism]. ... Deleuze's philosophy demands that such as issue be fully investigated. (Lechte, 1994: 104)

Index of footnotes: glosses and after-words

1.	Gloss on Companions	4
2.	Gloss on praxis, and its importance in this thesis	12
3.	Gloss on MTchLn	14
4.	Gloss on whānau	17
5.	Gloss on aroha	17
6.	Gloss on complexity theory	22
7.	Gloss on NCCDEL and NSOED	22
8.	Gloss on Sack's distinction between critical and uncritical ontologies	31
9.	Gloss on Apple's critique of "stylish politics"	38
10.	Gloss on collective	42
11.	Gloss on taonga	44
12.	Gloss on family resemblances	49
<i>13</i> .	Gloss on my resistance to the idea that theory can be applied in practice	50
14.	Gloss on Roland Barthes' (1968) "Death of the author"	50
<i>15</i> .	Gloss on Schön's swamplands of practice	71
16.	Gloss on epistemologies	71
17.	Gloss on post-structuralism	71
18.	Gloss on Heisenburg's uncertainty principle	89
19.	Gloss on Gödel's incompleteness theory	91
<i>20</i> .	Gloss on Habermas' three cognitive interests	100
21.	Gloss on Mea-nui	115
<i>22</i> .	Gloss on pragmatism - Cherryholmes: we choose our way of life	119
<i>23</i> .	Gloss on texts that discuss or promote pragmatism	120
24.	Gloss on pragmatism - Jary and Jary	123
<i>25</i> .	Gloss on pragmatism - Britannica	124
26.	Gloss on non-standard notion	128
<i>27</i> .	Gloss on predict, and positivist science	129
28.	Gloss on educational management	140
29.	After-word one: on afterwords, and on academic debates	143
<i>30</i> .	After-word: Gloss on transcendence	143
31.	After-word two: the use of "argue"	143
<i>32</i> .	Gloss on jus naturalism	149

	Page 291
33. Gloss on the EQUALs network, and Better Mathematics	172
<i>34.</i> Note about pseudomyms	179
35. Gloss on the portfolio requirement within the course TL811	184
36. Gloss on my perceptions of teacher workload	188
37. Gloss on Saussure's use of synchronic and diachronic	195
38. Gloss on Christopher Robin	201
39. Gloss on an exploratory thesis	205
40. Gloss on James' genuine options	210
41. Gloss on paralogy and dissensus	210
42. Gloss on analytic and synthetic	216
43. Gloss on thought experiments as a tool within pragmatic philosophy	218
44. Gloss on Wittgenstein and thought experiments	218
45. Gloss on collectives as self-organising systems	222
46. Gloss on an Expotition	227
47. Gloss on "putting ideas under strain"	230
48. Gloss on redundancy	230
49. Gloss on recent research funding	231
50. Gloss on praxitioner pedagogy	235
51. Gloss on praxitioner	243
52. Gloss on praxitioner collectives	243
53. Gloss on unruly knowledge	247
54. Gloss on the escape clauses of a foundational appeal	247
55. Gloss on Engaged Pedagogy	248
56. Gloss on performativity	258
57. A second gloss on performativity	258
58. Gloss on Critical Incident Questionnaires	260
59. Gloss on hegemonic overlord	270
60. Gloss on manaakitanga and wairuatanga	271
61. Gloss on Pākehā	273
62. Gloss on Kōhanga Reo	273
63. Gloss on ongoing conversations	275

Index

This index is included because it may provide additional ways of meandering through this thesis. It is peripheral to the thesis, but its existence also raises questions: what to include, what to exclude ... what to favour, how to classify, how to improve ... the index is tentative and emerging.

Archer, Margaret; Bhaskar, Roy;	Barthes, Roland, 60	184, 192, 193	philosophical shift
Bhaskar, Roy; Collier, Andrew; Lawson, Tony, 96 Abercrombie, Nicholas, Hill, Stephen, & Turner, Bryan S., 37, 158 action research, 21, 67, 99, 162, 197, 199, 208, 235, 254. See practitioner Action Research PAR, 222, 234 activism, 14 Adrienne. See	Bernstein, Richard J., 72, 114, 120, 151 pragmatism, 117 Biesta, Gert J.J., 56, 59, 120 Bohman, James, 99 Boyer, Ernest L., 37, 38 Braudel, Fernand, 134 Bricmont, Jean, 120 Britannica, Encyclopaedia., 124	model, 183, 255 student lens, 259 Brookfield. Stephen D four lenses, 95 Brown, Lesley, 27 Bruner, Jerome, 172 Brunner, Diane Dubose, 176, 248, 278 Bullough, Robert V. & Pinnegar Stefinee, 32 Burr, Vivienne, 78, 82, 176	shift chaos, 50, 91 Cherryholmes, Cleo H., 28, 27–31, 28, 29, 117, 118, 119, 120, 122, 152 beyond realism, 176 Peirce, 123 postmodern move, 114, 120 post- structuralism , 121 pragmatism, 28, 29, 121, 131, 216
Roberts AGNET, 67, 242 Ahmed, Afzal, 172 Anderson, Gary L., 32, 57, 59 Anscombe. See Wittgenstein Apple, Michael W., 37, 38, 102, 105, 108, 204 applied theory, 50 aroha, 17, 274 discussion, 272 Audi, Robert, 36,	Bronfenbrenner, U., 22 Bronwyn. See Thurlow Brookfield reflective practice model, 234 Brookfield, Stephen D., 164, 184, 259, 260, 279 as teacher, 182, 198 Critical Incident	individual/socie ty as system, 82 postmodern construction of self, 96 social constructioni sm, 152, 153, 154, 194 Butler, Judith, 97, 126 Capon, Dot. See Mayo et al. Casti, John L., 91	Seigfried, 132 skepticism, 144 tracing consequence s, 122 Biddulph, Fred; Jeanne, 22 Coates, Grace, 176 Cochran-Smith, Marilyn, & Lytle, Susan L., 161, 179, 189, 190, 191, 203 Cockcroft, Wilfred H., 172
92, 99, 104, 123, 140, 141, 217, 218 Bakhtin, Mikhail, 74, 89, 289	Questionnair e, 228, 260 diagram, 164 four lenses, 164, 182,	catalytic. See validity CCE, 14 changing of the waters, 46, 47, 48, 108. See	Cohen, Louis, Manion, Lawrence, & Morrison, Keith, 92, 99, 100, 220

Page 2	93
--------	----

	D - I I -	22	Flamence
collective, 10–11,	De Landa,	emergence, 22	Florence,
42	Manual, 26	emerging model	Namulundah,
pedagogy, 278,	De Landa,	epistemologies,	248
283	Manuel, 27	116	Foster, Gipsy, 37,
praxis, 283	Deleuze, Gilles,	it's all made up,	272
research, 283	289	112	Foucault, Michel,
· · · · · · · · · · · · · · · · · · ·	& Guattari,		47, 93, 97, 134,
research,		models of self,	219
pedagogy,	Felix, 74,	152	
praxis, 48	289	prism of praxis,	Fraser, Nancy,
self as voices,	& Guattari,	110–12, 155,	120, 125, 126,
11	Felix, 35	156	167
Colston, Herbert	Derrida, Jacques,	trivector, 112	Freire, Paulo
L., & O'Brian,	79	emerging object,	conscientisation
Jennifer, 120	Dewey, John, 56,	16, 146	, 56
common sense	102, 123, 125,	*	pedagogy, 62,
	130, 131, 133,	pragmatism,	176, 250
as shared	166, 187, 192,	156	praxis, 14, 140
knowledge,	220, 230, 279	Engaged Learning	*
105	pedagogical	Space, 262, 266	Freud, Sigmund,
common	revolution,	epistemologies, 88	77
sense/commons	141	epistemology	Gamble, Sarah,
ense, 104		pragmatic	37, 42, 74, 87,
commonsense. See	purpose of	perspective,	88, 145, 289
voices	philosophy,	142	Garmston, Robert
Companions, 4,	134		& Wellman,
37, 238	Diamond 9, 267	pragmatism,	Bruce, 23
Company, 227	discourse of	115–59	Garrison, Jim, 94,
	praxis	EQUALs	126
complexity theory,	discourse of,	network, 222	Gilman, Charlotte
8, 20–27, 22,	140	Euclid, 90	Perkins, 77
23, 50. See	dissensus, 16,	Expotition, 201,	
chaos, self-	139, 214, 237,	227, 239, 280,	Gipsy. See Foster
organising	280	286	Giroux, Henry A.,
systems,		family	38
emergence	Dowling, Paul,	resemblances,	Gleick, James, 11,
Comte, Auguste,	169	49	38
92	Durkheim, Emile,	feedback	Glock, Hans-
Copernicus, 206,	96	mechanisms,	Johann, 128,
207	Earl, Lorna, &	-	129, 130, 131,
critical theory, 99	Katz, Steven,	24, 223	133, 134
Cruickshank,	120	Felder, Lynn, 56,	Gödel, Kurt, 91
Justin., 120	Eco	59	
ŕ	Umberto, 36	Ferguson, Linda,	Gordon, Ian A.,
Culpan, Ian, 169,	·	176	27
180, 197	Eco, Umberto, 36,	Fforde, Jasper, 73	Granger, David
Curie, Marie, 93	120, 135, 218.	Fine, Michel, 97	A., 120
Danielewski,	See Lechte	Flax, Jane, 97	Green, Candice.
Mark Z., 73	Einstein, Albert,		See Mayo et al.
Davidson, Donald,	91, 93	Fleury, Stephen,	Griffiths,
130	Elbaz, Freema,	93	Morwenna, 176
Davies, Bronwyn,	176	Désautels,	,
96	Ellsworth,	Jacques, 93, 94	
, ,	Elizabeth, 249		

			Page 294
Guattari. See Deleuse. See Deleuse Gutting, Gary, 120, 127 Haber, Honi Fern, 120 Habermas, Jürgen, 95, 100, 142 emancipatory interest, 99 Hall, Allan, & Bishop, Russell, 172 Hannah, Kevin, 67, 68, 254 Harari, Josue V., & Bell, David F., 144, 147 Haraway, Donna, 74, 89, 91, 96, 289 Hawking, Steephen S., 38 Heath. See Kane hegemony, 167 individualism, 197 of positivism, 94 realism, 197 Heil, John Twin Earth, 36 Heisenburg, Werner Karl, 91 Helgesen, Sally, 53 Hide, Cathy. See Mayo et al. Hillier, Yvonne, 279	249, 262, 263, 273, 274, 275 Horring, Julia, 172 Hume,, David, 104 Humm, Maggie, 36, 101 Ian. See Culpan, Ian intelligence, 106, 134, 135 bottom up, 25 executive branch of, 167 irony. See voices ironist, 130 Isaacs, Alan, 37 It's alive, 204 Jary, David, & Jary, Julia, 36, 60, 62, 123 Johnson, Steven, 57, 167, 223 complexity theory, 11, 23 emergence, 25 feedback loops, 59 feedback loops, 59 feedback loops, 59 feedback, 58 self-organising systems, 23, 26 world view, 41 worldview, 33 Johnston, Paul, 69, 97, 152,	Heath, Chris, 32, 57, 59, 212, 235 Kant, Immanuel, 206, 207 Katz, 120. See Shotter keeping the conversation going, 131. See ongoing conversation Kelly, Deidre M., 167 Ketner, Kenneth Laine, & Putnam, Hilary, 120 Khidr, 45 King, Michael, 273 Knight Abowitz, Kathleen, 50, 120, 226, 230 resistance as a form of communicati on, 156 Kristeva, Julia, 100, 126 Kuhn, Thomas S., 91, 92 Kvale, Steiner, 241, 244, 246, 249 Lather, Patti, 34, 35, 38, 39, 56, 59, 68, 89, 93, 94, 144, 176, 215. See McWilliam & Smithies, Chris, 35	Page 294 jus naturalism, 149 quasi-objects, 145 the moderns, 144 what about peace, 150 Leach, Mary, 224, 225 Lechte, John, 36, 89 analytic/ synthetic, 216 Bakhtin, 74, 289 Braudel, 134 Deleuze, 74, 289 Derrida, 79 dictionary, 36 Foucault, 134 Habermas, 100 Lyotard, 258 Lyotard, 214 performativity, 258 Saussure, 195 Saussure, 89, 195 Serres, 74, 144, 289 Linneaus, Carolus, 93 Liston, Daniel P., & Zeichner, Kenneth M., 53, 54 Locke, T., 217 Lyotard, Jean- François, 258
53	26	94, 144, 176,	Kenneth M.,
Mayo et al.	worldview, 33	McWilliam	Locke, T., 217
	69, 97, 152,	-	François, 258
Douglas R., 79,	153, 154, 155 Jones, Alison, 96	72, 76, 91, 95,	Lyotard, Jean- François, 16,
80, 91, 215 hooks, bell, 60,	jus naturalism, 149	106, 117, 132, 144, 145, 147,	77, 137, 141, 142, 214, 242,
61, 62, 63, 176, 244, 247, 248,	Kane, Ruth, Sandretto, Susan, &	148, 149, 150, 151, 252	243, 244, 246, 258, 264, 280

			Page 295
austerity of	McLaren, Peter,	Nuttall, Graham,	Piaget, 172
realism, 137	249	162, 191	Piglet, 201, 227
performativity,	McLaren, Peter, &	O'Neill, Onora,	Pinnegar. See
136	Farahmandpur,	255	Bullough
performativity, 136	Ramin, 244, 248, 270	ongoing	pluralism, 140
	McWilliam, Erica,	conversation, 49, 50, 74, 95,	Poe, Edgar Alan,
Lyotard, Jean- François, 249	85, 102, 176,	131, 184, 223,	73
Macke, Frank J.,	219, 268	229, 250, 268.	Politics, 13
120	Lather, Patti, &	See	Pooh, Winnie the,
manaakitanga,	Morgan,	paralogy, 16, 214,	4, 36, 201, 227 Popper, Karl R,
274	Wendy, 89	245, 280	92
Mann, M	Meanui. See	Parata-Goodall,	positivism
pragmatic	voices	Puamiria.	as belief, 93
acceptance	Melrose, A. R., 36	Parker, Stephen, 54, 161, 163,	practice. See
of	methodology for theorising, 70	168, 173, 174,	praxis
subordinatio n, 158	Milne, A. A., 201,	175, 176, 177,	practitioner, 15
Māori, 37, 44,	227	178, 179, 181,	action
115, 236, 271,	Möbius, 81, 215,	188, 191, 192,	research, 30,
272, 273, 274,	216	193, 198, 206,	72
282	Morgan, Wendy.	223, 279	practice, 31–32
Te Reo, 37	See McWilliam	pedagogy, 52	reflective
Te Teo, 273	Morrison, Keith,	Peirce, Charles Sanders, 120,	practice, 30,
Tikanga, 37,	43, 55, 59, 183	123, 218, 230	72
273	unachievable	performativity,	Pragmatic Wondering, 55
Marx, Karl, 77,	equilibrium,	137, 257. See	pragmatism, 8,
101	27	Lyotard	27–31, 65
mathematics 172	Morss, John R, 97, 98, 154	Petrie, Kirsten.	constrained,
education, 172	Moses, 45	See Mayo et al.	16, 49
Mautner, Thomas, 37, 130, 149	MTchLn, 14	Phillips Estelle	creative, 16,
Mayo, H. Elaine,	Murrell, P.C., Jr,	M., & Pugh,	32, 49
58, 59, 169,	56, 59	D.S., 205	praxis, 12–15, 62,
259, 261, 281	NCCDEL, 27, 107	philosophical shift, 78. See	136, 140, 151,
& Hannah,	negative feedback,	toward	152
Kevin, 244	58, 59	beyond	collective, 15,
et al. Capon,	Neuman, W.	postmoderni	19, 210 educational, 8
Dot; Green,	Lawrence, 220	sm, 72	Jary & Jary, 62
Candice;	Newton, Sir Isaac,	new	•
Hide, Cathy; Petrie,	92, 93	understandin	practice, 8
Kirsten;	Noddings, Nel,	gs, 42	praxitioner. See
Rossiter,	172	post-	prism of, 110
Denise, 168,	Novack, George,	individualist, 11	prism of, distorted,
183, 244,	127		244
279	NSOED, 12, 27, 28, 107, 149,	post- interpretive,	reflective, 15
& Thurlow,	28, 107, 149,	50	Schrag, 141,
Bronwyn,	21 1	postrealist, 11	210
244		r	

			Page 296
Seigfried, 126 swamplands, 70	recall morning, 230, 245, 249,	Ruddock, Jean, 184	communicative praxis, 210
*	277	Rutherford,	everyday
theory-in- practice, 8	reflection, 186	Ernest, 93	communicati
Praxis	being reflective,	Rutherford,	ve practices,
	172	Ernest, Lord,	210
Freire, 140	critical	101	modernism,
praxitioner, 16–	reflection,	Sacks, Mark, 31,	154
17, 185, 238,	158, 186	247	pluralism, 141
249, 252	research	uncritical, 31	postmodernity,
activities, 5	applied, 50	Sandretto. See	139, 142
<i>collective</i> , 16,	catalytic, 52	Kane	pragmatism,
17, 238, 243, 252, 253	methodology	Saul, John	140, 141
·	for	Rawlston, 85,	praxis, 141
pedagogy, 238, 242–83, 242,	theorising,	105, 106	praxis-oriented
242–63, 242,	70	Saussure,	self, 154
questions, 280	Rhees. See	Ferdinand de,	self after
. ,	Wittgenstein	89, 195	postmodernit
research, 15, 235, 238,	rhizome, 35, 36,	Sawyer, W. W.,	y, 152
242, 246,	74, 75, 289	92	self in
252, 253,	Rhizome, 285	Scheurich, James	community,
254, 255,	Richardson,	Joseph, 93	210
275–77, 288	Laurel, 74, 78	modern	scientism, 94
researcher, 242	Rittel, H. and	researcher,	Seigfried,
Puamiria. See	Webber, M.	204	Charlene
Parata-Goodall	wicked	postrealist shift,	Haddock, 123,
Putnam, Hilary,	problems, 22	11, 56, 59,	126, 132
130	Roberts,	208, 212,	self
ideas under	Adrienne, 261,	216	as multiple
strain, 229,	262, 264, 265,	scientific	voices, 112
230	266, 278	realism, 93	self-organising
on Dewey, 134	Robertson, David,	Schneewind,	system, 22, 24,
on	37	Jerome B.	22–24, 26, 48,
Wittgenstein,	Robertson, Jane,	Scottish	151, 167, 215,
132	185	common	223, 224
on	Rorty, Richard,	sense	self-organising
Wittgenstein,	35, 44, 45, 46,	philosophy, 104	<i>systems</i> , 8, 24
Ludwig, 132	50, 51, 65, 106,		serious gossip,
pragmatism,	107, 109, 120,	Schön, Donald, 14, 37, 68, 95	224
151	130, 131, 133,		Serres, Michel,
quasi-objects,	138, 145, 176,	Schrag, Calvin O., 78, 139, 142,	35, 74, 89, 117,
144, 145	177, 218, 219,	143, 201, 210	136, 144, 146,
Quine, Willard	223, 225, 238	after	147, 151, 289
Van Orman,	interesting	postmodernit	on solitude, 136
130, 216	philosophy, 142	y, 72, 117,	Shah, Idries, 45,
Rabbit, 201		139	46
Race, Phil, 267	Rossiter, Denise. See Mayo et al.	bogus	Shor, Ira, 60, 61, 62, 63, 244,
	Roth, Wolf-	dichotomy,	248, 249, 265,
	Michael, 120	209	248, 249, 203,
	1.110111101, 120		<u>-</u> , ~

			Page 297
Shotter, John, 219	legitimation,	TL811, 169, 179,	Ernest, 88
& Katz, Arlene,	137	180, 183	Ernest, Hélène,
128, 231,	mobilisation of	(2000), 183	Karl, 87, 90,
232, 233,	meaning,	structural	156
234	108	constraints,	Hélène, 89, 96–
Skyttner, Lars, 11,	responsibility,	202	99
22, 55, 58, 231	109	Tom, Alan R., 58,	irony, 106–8
Smith, David	uncertain	59	<i>Irony</i> , 127–38
Geoffrey, 200,	trajectories,	toward, 9–10	irony, Strategy,
201, 207	246	change, 43	and
Smith, Joan, 47,	unruly	collective	Commonsen
50, 108	knowledge,	praxis, 19	se, 138
Smith, Linda	207, 241, 247	transcend, 113,	Karl, 90, 99
Tuhiwai, 272	StudentNet, 180,	139, 140, 160,	Mea-nui, 115,
Smithies. See Lather	184, 192, 193	199, 215	116, 117,
	subjectivity, 87	transcendence,	120, 121,
Smyth, John, 161,		143, 215	122, 123, 127, 142,
163, 165, 166, 167, 168, 169,	substantive issues, 48, 51, 53	trivector, 190	156, 216,
170, 171, 172,		unachievable	217, 250,
173, 174, 175,	Surtees, Nicola. See Mayo et al.	equilibrium, 27,	277, 230,
178, 179, 181,	•	43, 44, 78, 81,	not
183, 184, 185,	swamplands. See praxis	215	subjectivities
186, 187, 188,	•	uncritical, 247.	, 99
191, 192, 193,	tangled hierarchy, 104, 253	See Sacks	Pragmatism,
206, 259, 279	taonga, 44	unruly knowledge,	110
4critical	•	65	Praxis, 110
questions, 95	Taylor, Merilyn, & Cowie,	validity, 137, 138,	Prism of praxis,
four critical	Bronwyn, 176	214	110
questions, 95	teacher education,	catalytic, 56,	strategy, 108–9
problems with	18–20	68, 214	Strategy, 139–
reflection,	theoretical high	external, 29	43
179	ground/	pragmatic, 117	voices:Ernest, 90–
Snow, Catherine	swamplands,	verbalism, 14	96
E., 32	14	vocabulary	Vygotsky, L.S.,
social	theory. See praxis	final, 130	172
constructionism	Thody, Philip, &	new, 130	wairuatanga, 274
, 48, 97	Course, Ann,	voice, 68	Walkerdine,
strategy, 244. See	60	Karl, 99-102	Valerie, 268
voices	thought	voices, 95, 101,	Weaver, Warren,
Stronach, Ian &	experiment, 49,	103, 115	23
MacLure, Maggie, 64, 74,	213, 217, 218,	commonsense,	Webber, M See
137, 140, 244,	219, 220, 221	110, 151	Rittel
247, 249	collective, 221,	commonsense,	Weber, Max, 142
address, 276	222	irony and	Wellman. See
footnotes, 73	Thurlow,	strategy,	Garmston
•	Bronwyn, 37.	103–9	whānau, 16
funding for research,	See Mayo &	commonsense,	, iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
researcn, 257	Thurlow	irony,	
<i>431</i>	TL801, 14	strategy, 214	

Page	208
1 ago	420

Wheatley,	Williams, Herbert	137, 141, 142,	family
Margaret J., 53,	W., 37, 44, 271	146, 149, 153,	resemblance,
57, 59, 74, 289	Wilson, Suzanne	196, 197, 206,	135
wicked problem,	M., & Berne,	218, 219, 223,	hinge, 231
22, 99	Jennifer, 203	232, 231–34,	hinges, 135
Wiener, Lois, 56, 57, 59 Wiener, Norbert,	Wittgenstein, Ludwig, 39, 48, 69, 70, 72, 74,	289. See family resemblances Anscombe,	Inner, 24, 97, 152, 153, 154
homeostasis, 58, 106	117, 119, 125, 127–30, 127– 30, 131, 132, 133, 134, 135,	G.E.M., & Rhees, R, 179	Tractatus, 69 Wright, Robert, 120

References

- Abercrombie, N., Hill, S., & Turner, B. S. (2000). *The Penguin dictionary of sociology*. (4th ed.). London: Penguin Books.
- Ahmed, A. (1987). Better mathematics: A curriculum development study based on the low achievers in mathematics project. London: Her Majesty's Stationery Office.
- Alberto, P. A., & Troutman, A. C. (1999). *Applied behaviour analysis for teachers*. (5th ed.). Upper Saddle Valley, NJ: Merrill.
- Anderson, G. L. (2002). Reflecting on research for doctoral students. *Educational Researcher*, 31(7), 22-25.
- Apple, M. W. (1993). Official knowledge. New York: Routledge.
- Apple, M. W. (2000). The shock of the real: Critical pedagogies and rightist reconstructions. In P. P. Triffonas (Ed.), *Revolutionary pedagogies: Cultural politics, institution education and the discourse of theory*. New York: RoutledgeFalmer.
- Apple, M. W. (2003). Creating difference: Neo-liberalism, neo-conservativism, and the politics of educational reform. In J. Freeman-Moir & A. Scott (Eds.), *Yesterday's dreams: International and critical perspectives on education and social class*. Christchurch: Canterbury University Press.
- Archer, M., Bhaskar, R., Collier, A., Lawson, T., & Norrie, A. (Eds.). (1998). *Critical realism: Essential readings*. London: Routledge.
- Audi, R. (Ed.). (1995). *The Cambridge dictionary of philosophy*. Cambridge: Cambridge.
- Bell, J. (1993). *Doing your own research project*. (2nd ed.). Buckingham: Open University Press.
- Bernstein, R. J. (1992). The resurgence of pragmatism. *Social Research*, 59(4), 813-840.
- Biesta, G. (1995). Pragmatism as a pedagogy of communicative action. In J. Garrison (Ed.), *New Scholarship on Dewey*. Dortrecht: Kluwer.
- Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Foundation.
- Bricmont, J. (2001). Sociology and epistemology. In J. Lopez & G. Potter (Eds.), *After postmodernism: An introduction to critical realism*. London: The Athlone Press.
- Britannica, E. (1999). Encyclopaedia Britannica: Knowledge for the information age CD 99 multimedia edition. Chicago.

- Broad, C. D. (1924). Critical and speculative philosophy. In J. H. Muirhead (Ed.), *Contemporary British philosophy (First series)* (pp. 77-100). London: G. Allen and Unwin.
- Brookfield, S. (1996). Experiential pedagogy: Grounding teaching in students' learning. *Journal of Experiential Education*, 19(2).
- Brookfield, S. D. (1995). Becoming a critically reflective teacher. San Francisco: Jossey-Bass.
- Brunner, D. D. (1994). *Inquiry and reflection framing narrative practice in education*. New York: State University of New York.
- Bullough, R. V., & Pinnegar, S. (2001). Guidelines for quality autobiographical forms of self-study research. *Educational Researcher*, 30(3), 13-21.
- Burr, V. (1996). An introduction to social constructionism. London: Routledge.
- Butler, J. (1990). *Gender trouble: Feminism and the subversion of identity*. London: Routledge.
- Casti, J. L. (1996). Five golden rules: great theories of 20th-century mathematics and why they matter. New York: John Wiley and Sons, Inc.
- Chalmers, A. F. (1999). *What is this thing called Science?* (3rd ed.). Indianapolis: Hackett Publishing Company.
- Cherryholmes, C. H. (1988). *Power and criticism: Post-structural investigations in education*. New York: Teachers College Press.
- Cherryholmes, C. H. (1999). Reading pragmatism. New York: Teachers College Press.
- Coates, G. (1991). Professionalism, pride and diversity. In N. Kreinberg & H. Nathan (Eds.), *Teachers' voices, teachers' wisdom: Seven adventurous teachers think aloud*. Berkley: EQUALs.
- Cochran-Smith, M., & Lytle, S. L. (1999). Relationships of knowledge and practice: Teacher learning in communities. *Review of Research in Education (24), 249-305.*
- Cockcroft, W. H. (1982). *Mathematics counts: Report of the committee of inquiry into the teaching of mathematics in schools*. London: Her Majesty's Stationery Office.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education*. (5th ed.). London: Routledge/Falmer.
- Colston, H. L., & O'Brian, J. (2000). Contrast and pragmatics in figurative language: Anything understatement can do, irony can do better. *Journal of Pragmatics*, 32(10).
- Conner, L. (2002, July). Learning about social and ethical issues in a biology classroom. Doctor of Philosophy thesis, Monash University.

- Cruickshank, J. (2001). Rorty on pragmatism, liberalism and the self. In J. Lopez & G. Potter (Eds.), *After postmodernism: An introduction to critical realism*. London: The Athlone Press.
- Danielewski, M. Z. (2000). House of leaves. (2nd ed.). London: Anchor.
- Davies, B. (1992). A Feminist Poststructuralist Analysis of Discursive Practices in the Classroom and Playground. Discourse, 13 (October 1992).
- Davies, B. (1997). The subject of post-structuralism: A reply to Alison Jones. *Gender and Education*, 9(3).
- De Landa, M. (n.d.) Meshworks, hierarchies and interfaces. http://www.t0.or.at/delanda/meshwork.htm (downloaded 3/7/03).
- Delany, J., & Wenmoth, D. (2001). Empowering an indigenous rural community: Local teachers for local schools. Education in Rural Australia, 11 (2), 10-18.
- Denzin, N. K. (1997). *Interpretive ethnography: Ethnographic practices for the 21st century*. Thousand Oaks: Sage.
- Department of Education,. (1988). Tomorrow's schools: The reform of education administration in New Zealand. Wellington: Government Printer.
- Désautels, J., Fleury, S., & Garrison, J. (2002). The enactment of epistemological practice as subversive social action, the provocation of power, and antimodernism. In W.-M. Roth & J. Désautels (Eds.), *Science education as/for sociopolitical action*. New York: Peter Lang.
- Dewey, J. (1916). Democracy and education. New York: Free Press.
- Dewey, J. (1938). Experience and education. New York: Collier Books.
- Dowling, P. (1991). A touch of class: Ability, social class and intertext. In D. Pimm & E. Love (Eds.), *Exploring the teaching of mathematics*. London: Hodder and Stoughton.
- Dowling, P. (1998). *The sociology of mathematics education: Mathematical myths/pedagogical texts*. London: Falmer Press.
- Earl, L., & Katz, S. (2000). Changing classroom assessments: Teachers' struggles. In N. Bascia & A. Hargreaves (Eds.), *The sharp edge of educational change: Teaching leading and the realities of reform*. London: Routledge Falmer.
- Eco, U. (1984). Semiotics and the philosophy of language. London: Macmillan.
- Eco, U. (1990). The limits of interpretation. Indiana: Indiana University Press.
- Elbaz, F. (1987). Teachers' knowledge for teaching: Strategies for reflection. In J. Smyth (Ed.), *Educating teachers: Changing the nature of pedagogical knowledge*. London: Falmer Press.

- Ellsworth, E. (1992). Why doesn't this feel empowering? Working through the repressive myths of critical pedagogy. In C. Luke & J. Gore (Eds.), *Feminisms and critical pedagogy* (pp. 90-119). New York: Routledge.
- Felder, L. (2003). Teacher reflection in a hall of mirrors: Historical influences and political reverberations. *Educational Researcher*, *32*(3).
- Ferguson, L. (2001). Communicative practices in classrooms for children with severe and profound learning difficulties: A case study of methodologies of reflective practice. In M. Dadds & S. Hart (Eds.), *Doing practitioner research differently*. London: Routledge Falmer.
- Fine, M. (1991). Framing dropouts: Notes on the politics of an urban public high school. Albany: State University of New York Press.
- Flax, J. (1993). Disputed subjects: Essays on psychoanalysis, politics and philosophy. New York: Routledge.
- Florence, N. (1998). bell hooks' engaged pedagogy: A trangressive education for critical consciousness. Westport CN: Bergin and Davey.
- Foucault, M. (1977). *Discipline and punish: the birth of the prison* (R. Huxley, Trans.). London: Allen Lane.
- Foucault, M. (1979). *The history of sexuality, Volume 1: An introduction* (R. Huxley, Trans.). London: Allen Lane.
- Fraser, N. (1997). *Justice interruptus: Critical reflections on the postsocialist condition*. New York: Routledge.
- Freire, P. (1972). Pedagogy of the oppressed. London: Penguin Books.
- Gamble, S. (Ed.). (2000). *The Routledge critical dictionary of feminism and postfeminism*. New York: Routledge.
- Garmston, R., & Wellman, B. (1999). *The adaptive school: a sourcebook for developing collaborative groups*. Norwood, MA: Christopher-Gordon Publishers, Inc.
- Garrison, J. (1997). *Dewey and Eros: Wisdom and desire in the art of teaching*. New York: Teachers College Press.
- Giroux, H. A. (1994). Slacking off: Border youth and postmodern education. *JAC*, *14*.2(Fall).
- Gleick, J. (1988). Chaos. London: Penguin Books.
- Glock, H.-J. (1996). A Wittgenstein dictionary. Oxford: Blackwell.
- Glock, H.-J. (2001). Wittgenstein and reason. In J. C. Klagge (Ed.), *Wittgenstein: Biography and philosophy*. Cambridge: Cambridge University Press.

- Grainger, S., Taylor, N., & Cole, R. (2002). Assessment of work based learning: Some lessons from the teaching profession. *Asia Pacific Journal of Co-operative Education*, 3 (1), 5-12.
- Granger, D. A. (1998). Recovering the everyday: John Dewey as Emersonian pragmatist. *Educational Theory*, 48(3), 331-349.
- Griffiths, M. (1995). Ch. 6: Autobiography, feminism and the practice of action research. In D. Thomas (Ed.), *Teachers' stories* (pp. 94-105). Buckingham: Open University Press.
- Gutting, G. (1999). *Pragmatic liberalism and the critique of modernity*. Cambridge: Cambridge University Press.
- Haber, H. F. (1994). *Beyond postmodern politics: Lyotard, Rorty, Foucault*. New York: Routledge.
- Harari, J. V., & Bell, D. F. (1982). Introduction: Journal à plusieurs voies. In M. Serres, *Hermes: literature, science, philosophy*. Baltimore: The John Hopkins University Press.
- Haraway, D. (1996). Situated knowledges: The science question in feminism and the privilege of partial perspective. In E. F. Keller & H. E. Longino (Eds.), *Feminism and Science*. Oxford: Oxford University Press.
- Harré, R., & Krausz, M. (1996). Varieties of relativism. Oxford: Blackwell.
- Hawking, S. S. (1988). *A brief history of time: From the big bang to black holes*. Toronto: Bantam Books.
- Heaton, J., & Groves, J. (1994). Wittgenstein for beginners. Cambridge: Icon books.
- Helgesen, S. (1996). Leading from the grass roots. In F. Hesselbein, M. Goldsmith, & R. Beckhard (Eds.), *The leader of the future: New visions, strategies, and practices for the next era.* San Francisco: Jossey-Bass Publishers.
- Hillier, Y. (2000). *Reflective practice outside the walls of the academe*. Paper presented at the Institute of Learning and Teaching annual conference, York (June, 2000).
- Hofstadter, D. R. (1980 (1979)). Gödel, Escher, Bach: an eternal golden braid a metaphorical fugue on minds and machines in the spirit of Lewis Carroll. Harmondsworth: Penguin Books.
- hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom.* New York: Routledge.
- Horring, J. (1997). *Celebrating constructive change: Women as an influence in mathematics education*. Auckland: University of Auckland.
- Humm, M. (1995). *The Dictionary of Feminist Theory*. (2nd ed.). Harlow Essex: Prentice Hall.

- Isaacs, A. (Ed.). (1996). *The MacMillan encyclopedia* (1997 Edition). Aylesbury: Macmillan.
- Jary, D., & Jary, J. (1991). *Collins dictionary of sociology*. Glasgow: HarperCollins Publishers.
- Johnson, S. (2001). *Emergence: The connected lives of ants, brains, cities and software*. New York: Scribner.
- Johnston, P. (1993). Wittgenstein: Rethinking the inner. London: Routledge.
- Jones, A. (1991). At school I've got a chance. Palmerston North: Dunmore Press.
- Jones, A. (1997). Teaching post structural feminist theory in education: Student resistances. *Gender in Education*, *9*(3).
- Kane, R., Sandretto, S., & Heath, C. (2002). Telling half the story: A critical review of research on the teaching beliefs and practices of university academics. *Review of Educational Research*, 72(2), 177-228.
- Kant, I. (1787/1929). *Critique of pure reason* (Norman Kemp Smith, Trans.). London: MacMillan and Co.
- Kelly, D. M. (2003). Practising democracy in the margins of school: The teenage parents program as feminist counterpublic. *American Educational Research Journal*, 40(1), 123-146.
- Ketner, K. L. (Ed.). (1992). Reasoning and the logic of things: The Cambridge conferences lectures of 1898: Charles Sanders Pierce. Cambridge MA: Harvard University Press.
- Ketner, K. L., & Putnam, H. (1992). Introduction: The consequences of mathematics. In K. L. Ketner (Ed.), *Reasoning and the logic of things: The Cambridge conferences lectures of 1898: Charles Sanders Pierce*. Cambridge MA: Harvard University Press.
- Kincheloe, J. (1997). Fiction formulas: Critical constructivism and the representation of reality. In W. G. Tierney & Y. S. Lincoln (Eds.), *Representation and the text: Reframing the narrative voice*. New York: State University of New York.
- Knight Abowitz, K. (2000). A pragmatist revisioning of resistance theory. *American Educational Research Journal*, 37(4), 877-907.
- Kuhn, T. S. (1970). The structure of scientific revolutions. (2nd ed.). Chicago: University of Chicago Press.
- Kvale, S. (1996). Themes of postmodernity. *The Fontana post modernism reader* (pp. 18-25). London: Fontana Press.
- Lashlie, C. (2002). *The journey to prison: Who goes and why*. Auckland: Harper Collins.

- Lather, P. (1986). Issues of validity in openly ideological research: Between a rock and a soft space. *Interchange*, 17(4), 63-84.
- Lather, P. (1991). *Getting smart: Feminist research and pedagogy with/in the postmodern*. New York: Routledge.
- Lather, P. (1992). Critical frames in educational research: Feminist and post-structural perspectives. *Theory into Practice, XXXI*(Number 2), 87-98.
- Lather, P. (1993). Fertile obsession: Validity after poststructuralism. *The Sociological Quarterly*, 34(4), 673-693.
- Lather, P. (1996). Issues of validity in openly ideological research: Between a rock and a soft place. *Interchange*, 17(4), 63-84.
- Lather, P. (2000a). Drawing the line at angels: Working the ruins of feminist ethnography. In E. A. St. Pierre & W. S. Pillow (Eds.), *Working the ruins: Feminist poststructural theory and methods in education* (pp. 284-313). New York: Routledge.
- Lather, P. (2000b). Responsible practices of academic writing: Troubling clarity II. In P. P. Triffonas (Ed.), *Revolutionary pedagogies: Cultural politics, institution education and the discourse of theory*. New York: RoutledgeFalmer.
- Lather, P., & Smithies, C. (1997). *Troubling the angels: Women living with HIV/AIDS*. Boulder, Colorado: Westview Press.
- Latour, B. (1993). *We have never been modern* (Catherine Porter, Trans.). Cambridge, MA: Harvard University Press.
- Latour, B. (1999). *Pandora's hope: Essays on the reality of science studies*. Cambridge, MA: Harvard University Press.
- Latour, B. (2002). *War of the worlds: What about peace?* (Charlotte Bigg, Trans.). Chicago: Prickly Paradigm Press.
- Leach, M. (1995). (Re)searching Dewey for feminist imaginaries: Linguistic continuity, discourse and gossip. In J. Garrison (Ed.), *New Scholarship on Dewey*. Dortrecht: Kluwer.
- Lechte, J. (1994). Fifty key contemporary thinkers: From structuralism to postmodernity. London: Routledge.
- Lechte, J. (2003). *Key contemporary concepts: From abjection to Zeno's paradox.* London: Sage.
- Liston, D. P., & Zeichner, K. M. (1991). *Teacher education and the social conditions of schooling*. New York: Routledge.
- Loux, M. J. (1998). *Metaphysics: A contemporary introduction*. London: Routledge.

- Lovett, S. (2002). Teachers' talk helps learning: the quality learning circle approach. *SET: Research Information for Teachers.*, 2002(1), 25-27.
- Luntley, M. (1999). *Contemporary philosophy of thought: Truth, world, content.* Oxford: Blackwell.
- Lyotard, J.-F. (1984). *The post-modern condition: A report on knowledge* (G. Bennington & B. Massumi, Trans.). Manchester: Manchester University Press.
- Manicas, P. (1998). A realist social science. In M. Archer, R. Bhaskar, A. Collier, T. Lawson, & A. Norrie (Eds.), *Critical realism: Essential readings*. London: Routledge.
- Mautner, T. (Ed.). (1996). The Penguin Dictionary of Philosophy. London: Penguin.
- Mayo, E., & Thurlow, B. (2001). *Reflections on praxis: Linking theory and practice in search of pedagogies of participation*. Paper presented at the New Zealand Association of Research in Education, Christchurch (5-8 December, 2001).
- Mayo, E., Capon, D., Green, C., Hide, C., Petrie, K., Rossiter, D., & Surtees, N. (2000). About reflection (about teaching (about reflection within teaching)): Where is the critical edge? Paper presented at the Teacher Education Forum of Aotearoa New Zealand, Christchurch.
- Mayo, H. E. (1994). On power and equity; Let's not blame the victim. In J. Neyland (Ed.), *Mathematics education: A handbook for teachers (Vol. 1)*. Wellington: Wellington College of Education.
- Mayo, H. E. (2001). Reflective praxis: Reflecting on teaching and its constraints within a post-graduate course for practising teachers a focus on evaluation. Paper presented at the Institute of Learning and Teaching Annual Conference 2, York (4-6 July, 2001).
- Mayo, H. E., & Hannah, K. (1998). The learning networks of isolated teachers: A first analysis of the use of audiographics communication technology for ongoing teacher education. Paper presented at the Queensland Open Learning Network Conference, Brisbane (December, 1998).
- Mayo, H. E., & Hannah, K. (1999, July). *The learning networks of isolated teachers:*The use of audiographics communication technology to build a virtual mathematics department. Paper presented at the Mathematics Education Research Group of Australasia, Adelaide (July, 1999).
- McLaren, P. (1993). Schooling as a ritual performance: Towards a political economy of educational symbols and gestures. (2nd ed.). London: Routledge.
- McWilliam, E. (1999). *Pedagogical pleasures*. New York: Peter Lang.

- McWilliam, E. (2000). Laughing within reason: On pleasure, women, and academic performance. In E. A. St. Pierre & W. S. Pillow (Eds.), *Working the ruins:* Feminist poststructural theory and methods in education. London: Routledge.
- McWilliam, E., Lather, P., & Morgan, W. (1997). *Head work, field work, text work: A textship in new feminist research*. Kelvin Grove, Queensland: Queensland University of Technology.
- Melrose, A. R. (1995). *The Pooh Dictionary: The complete guide to the words of Pooh and all the animals in the forest.* London: Methuen.
- Milne, A. A. (1994/1926). Winnie the Pooh: The complete collection of stories and poems. London: Methuen.
- Milne, A. A. (1994/1928). The house at Pooh Corner, *Winnie the Pooh: The complete collection of stories and poems*. London: Methuen.
- Ministry of Education, (2002). *Tertiary Education Strategy: 2002/7*. Wellington: Ministry of Education.
- Mishler, E. G. (1990). Validation in inquiry-guided research: The role of exemplars in narrative studies. *Harvard Educational Review*, 60(4), 415-442.
- Morrison, K. (1996). Developing reflective practice in higher degree students through a learning journal. *Studies in Higher Education*, 21(3), 317 332.
- Morrison, K. (1998). *Management theories for educational change*. London: Paul Chapman Publishing Inc.
- Morss, J. R. (1996). *Growing critical: Alternatives to developmental psychology*. London: Routledge.
- Neuman, W. L. (1997). *Social research methods: Qualitative and quantitative approaches.* (3rd ed.). Boston: Allyn and Bacon.
- Noddings, N. (1984). *Caring: a feminine approach to ethics and moral education*. Berkley, CA: University of California Press.
- Noddings, N. (1992). *The challenge to care in schools*. New York: Teachers College Press.
- Novack, G. (1975). *Pragmatism versus Marxism: An appraisal of John Dewey's philosophy*. New York: Pathfinder Press.
- Novack, G. (1975). *Pragmatism versus Marxism: An appraisal of John Dewey's philosophy*. New York: Pathfinder Press.
- Nuthall, G. (2001, December). *Cultural myths and the realities of teaching and learning*. Paper presented at the New Zealand Association for Research in Education: The Jean Herbison lecture, Christchurch.

- Parker, S. (1997). Reflective teaching in the postmodern world: A manifesto for education in postmodernity. Buckingham: Open University Press.
- Peirce, C. S. (1992). Reasoning and the logic of things: The Cambridge conferences lectures of 1898. In K. L. Ketner (Ed.), *Reasoning and the logic of things: The Cambridge conferences lectures of 1898: Charles Sanders Pierce*. Cambridge MA: Harvard University Press.
- Phillips, E. M., & Pugh, D. S. (1994). How to get a PhD: A handbook for students and supervisors. (Second ed.). Buckingham: Open University Press.
- Popper, K. R. (1974/1959). The logic of scientific discovery. London: Hutchinson.
- Popper, K. R. (1994). *The myth of the framework: In defence of science and rationality*. London: Routledge.
- Putnam, H. (1975). The meaning of 'meaning'. In H. Putnam *Mind, language and reality*. Cambridge: Cambridge University Press.
- Putnam, H. (1990). *Realism with a human face*. Cambridge MA: Harvard University Press.
- Putnam, H. (1992). Comments on the lectures. In K. L. Ketner (Ed.), *Reasoning and the logic of things: The Cambridge conferences lectures of 1898: Charles Sanders Pierce*. Cambridge MA: Harvard University Press.
- Putnam, H. (1995). Pragmatism: An open question. Oxford: Blackwell.
- Race, P. (2000). *Assessing reflective practice*. Paper presented at the Institute of Learning and Teaching, York (June, 2000).
- Richardson, L. (1997). *Fields of play: Constructing an academic life*. New Brunswick NJ: Rutgers University Press.
- Robertson, D. (1993). Penguin dictionary of politics. London: Penguin Books.
- Robertson, J. (2003). *Research and teaching in a community of inquiry*. Unpublished PhD thesis, University of Canterbury.
- Rorty, R. (1979). *Philosophy and the mirror of nature*. Princeton: Princeton University Press
- Rorty, R. (1989). *Contingency, irony, and solidarity*. Cambridge: Cambridge University Press.
- Rorty, R. (1995). Ironists and metaphysicians. In T. Anderson, *The Fontana post modernism reader* (pp. 96-103). London: Fontana Press.
- Rosch, E. (1978). Principles of Categorization. In E. Rosch & B. B. Lloyd (Eds.), *Cognition and Categorization* (pp. 28-46). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

- Roth, W.-M. (2000). From gesture to scientific language. *Journal of pragmatics*, 32, 1683-1714.
- Sacks, M. (2000). Objectivity and insight. Oxford: Clarendon Press.
- Saul, J. R. (2001). *On equilibrium*. Camberwell, Victoria, Australia: Penguin.
- Sawicki, J. (1991). *Disciplining Foucault: Feminism, power, and the body*. New York: Routledge.
- Sawyer, W. W. (1955). Prelude to mathematics. Harmondsworth: Penguin.
- Scheurich, J. J. (1997). Research method in the postmodern. London: The Falmer Press.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schön, D. A. (1987). Educating the reflective practitioner: Towards a new design for teaching and learning in the professions. San Francisco, Jossey Bass.
- Schrag, C. O. (1997). *The resources of rationality: A response to the postmodern challenge*. Bloomington Indianapolis: Indiana University Press.
- Schrag, C. O. (1997). The Self after Postmodernity. New Haven: Yale University Press.
- Serres, M. (1995). *Genesis* (G. James & J. Nielson, Trans.). Ann Arbor: University of Michigan Press.
- Shah, I. (1967). Tales of the dervishes: Teaching-stories of the Sufi masters over the past thousand years, selected from Sufi classics, from oral tradition, from unpublished manuscripts and schools of Sufi teaching in many countries. London: Jonathon Cape.
- Shor, I. (1996). When students have power: Negotiating authority in a critical pedagogy. Chicago: University of Chicago Press.
- Shotter, J. (1993). *Conversational realities: Constructing life through language*. London: Sage Publications Ltd.
- Shotter, J., & Katz, A. M. (1996). Articulating a practice from within the practice itself: Establishing formative dialogues by the use of a 'social poetics'. *Concepts and transformation*, 1996(1), 213-237.
- Skyttner, L. (1996). *General systems theory: An introduction*. Basingstoke: MacMillan Press.
- Skyttner, L. (2001). *General systems theory: Ideas and applications*. Singapore: World Scientific.

- Smith, D. G. (1997). Identity, self, and other in the conduct of pedagogical action: An East/West inquiry. In T. R. Carson & D. Sumara (Eds.), Action research as living practice. New York: Peter Lang.
- Smith, J. (2002). Moralities. London: Penguin Books.
- Smith, L. T. (1999). *Decolonising methodologies: Research and indigenous peoples*. Dunedin: University of Otago.
- Smyth, J. (1991). *Teachers' work and the politics of reflection: Or, reflections on a growth industry*. Paper presented at the Reflective Practice Conference, Bath (1991).
- Smyth, J. (1992). Teachers' work and the politics of reflection. *American Educational Research Journal*, 29(2), 267-300.
- Snow, C. E. (2001). Knowing what we know: children, teachers, researchers. *Educational Researcher*, *30*(7), 3-9.
- Sorensen, R. A. (1992). *Thought experiments*. New York: Oxford University Press.
- Stronach, I., & MacLure, M. (1997). *Educational research undone: The postmodern embrace*. Buckingham: Open University Press.
- Taylor, M., & Cowie, B. (1997). *Story weaving: A process for critical collaborative professional development*. Paper presented at the People in Mathematics Education, Rotorua (7-11 July, 1997).
- Thody, P., & Course, A. (1997). Barthes for beginners. Cambridge: Icon Books.
- Tom, A. R. (1999). Reinventing master's degree study for experienced teachers. *Journal of Teacher Education*, 50(4), 245-254.
- Walkerdine, V. (1988). The mastery of reason: Cognitive development and the production of rationality. London: Routledge.
- Weiner, L. (2002). Review of "The Community Teacher", "Education Culturally Responsive Teachers," and "Teacher Education and the Cultural Imagination". *Educational Researcher*, 31(9).
- Wheatley, M. J. (1999). *Leadership and the new science: Discovering order in a chaotic world.* (Second ed.). San Francisco: Berrett-Koehler Publishers.
- Wicks-Nelson, R., & Israel, A. C. (2003). Behavior disorders of childhood. (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Williams, H. W. (1971). *A dictionary of the Māori language*. (7th ed.). Wellington: Government Printing Office.
- Wittgenstein, L. (1921). *Tractatus logico-philosophicus* (D.F. Pears & B.F. McGuiness, Trans.). London: Routledge and Kegan Paul.

- Wittgenstein, L. (1969). *On Certainty* (D. Paul & G. E. M. Anscombe, Trans.). Oxford: Blackwell.
- Wittgenstein, L., Anscombe, G. E. M., & Rhees, R. (1953). *Philosophical investigations* (G. E. M. Anscombe, Trans.). Oxford: Basil Blackwell.
- Wittgenstein, L., Anscombe, G. E. M., & Wright, G. H. v. (1967). *Zettel* (G. E. M. Anscombe, Trans.). Oxford: Basil Blackwell.