Is it meaningful to think of education as having a spirit – a large orientation that gives it a purpose and motivation, without reducing it to rules, codes, outcomes or methods? If so, how might this spirit be understood in education today?

This book addresses these questions. It also explains why the spirit of education today is systematically being diminished to something less worthy of educational endeavour. It is argued that globally and at all levels including

- early childhood
- primary
- secondary
- initial teacher education and
- tertiary.

Education is being eroded. Otherwise put, education is more and more being brought under the yoke of a mode of thought that reduces it to something mechanical, narrowly characterized by codes, predefined outcomes, protocols and rules. The cause, it is argued is the growing dominance of a new fashion in education called ‘scientific management’. Scientific management has become the new and unquestionable orthodoxy in education. As a consequence, it has become increasingly difficult to imagine, let alone articulate, an alternative.

This book explores the origins and fundamental assumptions of scientific management, and suggests how the spirit of education might be rediscovered by turning instead to a more ‘ethical’, ‘socially interpersonal’, and ‘full bodied’ orientation. The approach taken avoids the difficulties usually associated with such ethically oriented treatments of education by drawing on recent findings in neurophysiology, psychology, primate and language studies.

The book is a Reader, and is designed to both supplement and invigorate undergraduate and postgraduate courses in education, and to appeal to general readers who have an interest in education.

The book will be particularly suitable as a supplement for undergraduate and postgraduate courses in

- initial teacher education,
- educational psychology,
- sociology of education,
- philosophy of education and
- curriculum and assessment.
Rediscovering the Spirit of Education after Scientific Management
Rediscovering the Spirit of Education after Scientific Management

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To Patricia
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During the 1980s and 1990s, in a growing number of countries, a radical new education theory rapidly gained ascendancy and became the official orthodoxy. I was in a position to observe this sea change at close range. What I saw worried me. Its consequences still do. One of these, the primary motivation for this book, is that a new generation of future education leaders is emerging—education majors at university and pre-service teachers—who have had their entire schooling in the post-reform period. Most have experienced nothing else, and are unaware that there is an alternative. This book is written for them. More specifically it is written for students reading graduate and undergraduate courses in education psychology, the sociology of education, curriculum and assessment, education policy, education philosophy, or education ethics. It is also written for those practising teachers, and parents, who are wondering if education has lost its way. In my view, it has.

There are a number of excellent books that discuss these reforms. But an important line of criticism has not been given sufficient attention. I refer to what could be called an ethical critique. By this I am referring, not to an investigation of the content of ethical codes and moral injunctions, but to a study of the relationship between these and what ultimately underpins them. An ethical critique is based on the assumption that codes and moral injunctions can become, if wrongly understood, a corrosive influence in education. I am not alone in conducting research of this sort. My task here is to bring this work more into the mainstream. Typically, where ideas such as these are discussed in the academy, they are tucked away in obscure corners of postgraduate programmes. This, I suspect, is because the ideas are wrongly considered to be mostly inconsequential and of only sectional interest. But this becomes circular. It is my conviction that these ideas are merely unfamiliar, and that, once they are more widely understood, they will be found to be the seeds of a new way of education; more than just a new way of education, actually, but a new way of thinking that is crucial for the future survival and transformation of both our planet and ourselves. Teilhard de Chardin makes this argument and believes that this sort of ‘ethical’ thinking constitutes a new phase of human and planetary evolution.

It is true that reading ethical philosophy on this subject is not easy going. But there is an alternative treatment, based in education psychology, and drawing on cognitive semantics and neuro-science, that provides a more accessible route into this important and neglected area of scholarship. It is this alternative that is introduced here. It is a route that my students, both undergraduate and graduate, have found interesting and absorbing.

Because my goal is to increase the number of those acquainted with what is a little known area of research, I have tried, in the manner of writing, to be fully engaging. I have done this principally in three ways. The sober and urgent message is leavened by a tone that refuses to confound the serious and the solemn. Differently put, sometimes the points are made in a way that some readers will find amusing. In addition, I have tried, particularly in the early parts of the chapters, to explain fully,
and to illustrate by analogy, those ideas that are likely to be unfamiliar. Finally, I have
used a spiral mode of presentation. The central notions are encountered in the early
chapters in a straightforward, uncomplicated and sometimes provocatively truncated
way. In later chapters these notions are recursively revisited at increasing depth to
express nuances formerly passed over. The book is not the final word on the subject.
It is merely an introduction. My fervent hopes are that readers will reach the final
pages eager to learn more, and that the book will supply a puff of oxygen to the dying
embers of education’s flagging spirit.
ACKNOWLEDGEMENTS

It is impossible adequately to acknowledge the debt I owe to the many people who, in one way or another, have supported the writing of this book. What follows is an insufficient attempt shaped loosely into four groups.

My first set of thanks goes to my wife Patricia, without whose encouragement, support and critical feedback I could not have written it; to our daughters Kate and Anna, who put up with their father disappearing into the study for longer periods than usual; and to my brother Anthony who encouraged me to set aside my initial scepticism about what I came to call full-bodied knowing, and to approach the relevant literature with a more open mind.

My second set of thanks goes to those of my betters who did not recoil from the fact that I was radically questioning the status quo. This is a cross-disciplinary project and projects of this sort, because they threaten to be awkward, frequently never get off the ground. This one did and I want to acknowledge the courage and faith shown by my PhD supervisors Megan Clark and Hugh Lauder, and that shown by Andy Begg, the editor of Curriculum Matters at the time when I first started to put these ideas into the public domain.

Once the project was begun I was generously supported at a personal level by a number of people who encouraged me to ‘assemble’ (to use Alfred North Whitehead’s term) an even more diverse range of ideas. So my third set of thanks goes to those who introduced me to ways of seeing hitherto unfamiliar to me. Mention in particular needs to be made to John Jamieson, Patrick McCabe, Kevin Connors, Reuben Hersh, Jane McChesney and Jim Collinge. Furthermore the ideas presented in the pages that follow formed gradually in my mind over a decade or so during which I shared and tested them with my students. As a result of their observations, comments and questions I refined them. Their contributions live on here. The same can be said of a number of academic colleagues who responded to my seminars and commented on my papers. My thanks especially to Kelvin Smyth, Derek Holton, Cedric Hall and James Irving. My final expression of thanks goes to Fiona Walls. This book would not now be completed had it not been for her determined encouragement over the second half of 2009 when I was dogged by illness. Thanks also to Susan Kaiser for her many helpful suggestions.

Some of the material in the following pages has been drawn from papers of mine published in the journal Curriculum Matters—specifically, Neyland (2006 and 2007b). I am grateful to the editor and the New Zealand Council for Education Research for permission to reuse it here. In addition, a small extract is adapted, with permission, from my Introduction to Neyland (Ed.) (1996).

*Front cover artwork by Anna Neyland*
AN OPINIONATED INTRODUCTION

People submit to power in the form they encounter it. The nine-year-old avoids the neighbourhood bully. The adolescent drifts with the in-group. The teacher complies with the curriculum manager’s circumscribing rules. There are differences here in intellectual maturity, but none in fundamental orientation. This book is about a new regime of power and its effects on the fundamental orientations of people in education. It is also about a fashionable trend in organisational management, about which something similar can be said. People adopt fads in their most prevalent form. Teenage girls express their identity by wearing a particular style of jeans. Public sector administrators distrust their staff. And education auditors believe that outcomes-led education is good. Here, there are differences in social context, but none in basic instinct. This book is also about basic instincts. More generally, it is about ethics, psychology and the human spirit.

When I was ten, dad was teaching at a local primary school. Gerry Molloy taught in the room next door. Gerry had not yet made his name as a Hollywood-based film director, and was still learning to harness his prodigious talent and direct it for beneficial purposes. Working in a school was one of the few places where it was both possible and legitimate to do this, and at the same time earn a decent living. These days a bag of diamonds could not buy a year’s learning from this accomplished director. In those days, for forty or so lucky working-class kids a year, it was all part of the education service.

From time to time Gerry would come around to our home for dinner. He may have been attracted by the roast vegetables, the Yorkshire pudding bathed in gravy, and the mint-garnished lamb. He may also have been attracted by what happened when the meal was finished. Guest or no guest, no one in our family left the table once the plates were empty—except for a small delegation making a quick trip to the kitchen to wash the dishes and make a large pot of tea to see us through the next hour or two—because no one wanted to miss out on the story telling, the joking, the mathematics problems, the philosophising, the games, and the singing.

I remember on one occasion Gerry brought with him a microscope. The school had none, and so he had made a set for his science lessons. They were cleverly designed and inexpensive. In an act of genius he had made each lens out of a drop of water. It was held in place, within a small loop of wire, by surface tension. Other than in pictures, we had never seen a microscope. We lined up to watch a grain of salt grow suddenly, as if an earlier diet of steroids had just begun to work. And we saw a hair, plucked from my youngest brother’s head, take on the appearance of one plucked from King Kong’s armpit. Gerry’s ingenuity on behalf of his students seemed boundless.

On another occasion Gerry and dad had us shaking with laughter as they regaled us with the tale of what Gerry and his class had done during the previous week. He innocently had asked the class for their career preferences. Most indicated that they would follow their parents and work on an assembly-line in a factory—many of the parents were new immigrants and had little choice about their place of employment.
The next day the children arrived to find their classroom completely reorganised, and a big stack of blank cardboard in one corner. The desks had been re-arranged as two long tables. These became two assembly-lines. Each child had one small task to repeat. Overall, the task was to cut, fold, paint and glue the pile of card into hundreds and hundreds of little cardboard buses. The first person on the line drew around a stencil to form an outline for cutting. The next person made the cut. Twenty pairs of hands later, a little bus emerged when the last child pinned four small painted wheels to the completed carriage.

They began eagerly. One hour later they were still eager. At the end of the day they were fed up. After three days, a tumbling mound of identical little buses stretched to the ceiling damming up one corner, and the air reeked of tedium. One after another the children hung on Gerry’s hand and pleaded: ‘Mr. Molloy, can we return to our normal lessons, I never want to see another assembly-line as long as I live.’

Gerry’s spontaneous response to his children three days earlier was the stuff of a well-prepared instinct, not the stuff of careful planning. Mundane in its simplicity, his idea was diamond-tipped in penetrating to the core of their need. He taught them a singular and seminal lesson: be wary of assembly-lines, even those you come across in school.

Gerry would not last five minutes in the current education system. The futile paperwork and constant assessment would be an annoyance. But that would be nothing compared with the sense of claustrophobia caused by the straightjacket of the outcomes-led curriculum and its contrived unwillingness to let him respond directly and intuitively to his students. And he would miss the exhilarating sense of fun that can come from embracing the unexpected. Fun for everyone, teacher and students alike. When the children who made buses looked back on their experience they understood the lesson, but they also got the joke. They understood Molloy’s madness, and liked it.

Schools, in my experience, are very funny places. Children and young people enjoy a touch of the bizarre, and they love a surprise, especially those that accompany learning. I have seen them grin wryly or rock with silent laughter at an unanticipated change in outlook. Education can be the best show in town. Surprise, and the enjoyment it produces, is education’s cardinal feature. Surprise is its inscape. But the capacity for surprise is very nearly extinguished on the outcomes-led chains of toil. So, where did these chains come from? They have been in the background of education for more than a century. Chains were invented by a group of Americans who had lost their fascination for education and had become instead fascinated by the idea of efficiency, uniformity and synchronised mass movement. They took the small and timid idea of systematised sequencing and thought that, by multiplying it, it would somehow become the expansive and vibrant idea of education. In the manner of the Alice in Wonderland story, they thought they could remove the cat but still keep the grin.

At the core of their delusion is an error in logic. They mistook accidental features for necessary ones. They saw a red chair and concluded that all chairs must therefore be red. When they looked at each of their own learning histories they
were amazed by something they all had in common. In each case, learning had occurred in a sequence. Accordingly, they concluded that systematic order of apprehension must be an essential feature of education. The obvious fact that, looking backwards, everything else in their lives had also occurred in a sequence, mysteriously seemed to escape attention. Sequencing is a necessary consequence of the fact that we live in the path of time’s arrow. It is not at all a necessary characteristic of education. Education is forever a little wild and free-running. It is only in hindsight that one can see a linear path. There is no path leading out in front.

That was one error—a big one—but minor compared with the one that followed in the reforms that began under the influence of economic rationalism in the 1980s and 1990s. Here a group of radiant-eyed converts took a variant of the same small idea and tried to enlarge it, this time, by making it mandatory. No longer just one of many options available to teachers, it now became an inescapable imposition on all. Faddism had finally wedded itself to executive power. The new disciples decided the time was long overdue for conquering and domesticating education, for making it manageable and predictable. They did this by splicing together the lurking techniques of outcomes-led instruction with a method of analysis and control called ‘scientific management’. This was not a difficult task, because, by a fortuitous happenstance, scientific management had been invented by the man who had also invented the assembly-line. In essence, they tried to drive the spirit of Spike Milligan out of the school, and replace it with that of Charles Dickens’ Mr. Gradgrind and Uriah Heep. They even tried to turn the local school into a latter-day Murdstone and Grinby’s.

‘Over our dead bodies!’ said many teachers. ‘Dead bodies is more or less what we have in mind,’ answered the reformers as they proceeded to steal from education its element of the unexpected. But the reformers were not going to get an easy victory. In the metabolism of education, the teacher is second in importance only to the learner. And teachers had seen snake oil peddlers before. Teachers can be intimidated, but not easily. This fact points to the fatal flaw in most processes of education evaluation, which set out to determine if things are working. The fact that things are working is no guarantee that the system is any good, for the simple reason that teachers always find a way to make even the most ill-conceived system work—they do it out of love for their students and enthusiasm for their subjects. I have witnessed it many times. Our two children have enjoyed school. For this I thank the teachers, not the difficult system in which they work. Karl Popper, in the Open Society and Its Enemies, hit the spot when he wrote:

Instead of encouraging the student to devote himself to his studies for the sake of studying, instead of encouraging in him a real love for his subject and for enquiry, he is encouraged to study for the sake of his personal career—he is led to acquire only such knowledge as is serviceable in getting him over the hurdles which he must clear for the sake of his advancement…. I do not know a better argument for an optimistic view of mankind, no better proof of their indestructible love for truth and decency … than the fact that this devastating system of education has not utterly ruined them.
Popper at one stage was a primary school teacher, and so knew education. He was writing here about an education system he found wanting. But it was better than the one imposed under the education reforms of the late 1980s and beyond. What he says about there being no better argument for an optimistic view of humankind can be applied to teachers as well. I know of no better argument for the presence of a vital education spirit in the hearts of teachers than the fact that good education survives, despite the reforms. But teachers should not have to work under these conditions.

Is the new system a good one? Emphatically not. The reason is simple: the scientific management of education, more or less in the way just described by Popper, is destroying education’s essential spirit. The first law of insanity is: keep doing something that does not work, but do it better and faster, and with more resolve. Another well-known way of saying this is: When you find yourself in a hole, stop digging! When I began writing this book I used the working title, If you don’t strike oil, stop boring! And, yes, the double meaning was intended. “Boredom,” writes Jerome Bruner, “has always played more of a role in human history than we are prepared to admit. And we should never underrate the boredom induced by empty ideas pretentiously paraded.”

One of the keys to a revival of education’s spirit is the reclaiming of public education space. This is the space in which diverse education creeds are made to bump into each other in thoughtful exchanges and vigorous debate. The new education elite knew how to wield power effectively. Their first act was to dismantle public education space. In this respect, the difference between the pre- and post-reform periods could not be more marked.

W. B. Yeats said that a dog does not praise its fleas. I am pleased to say that this is mostly untrue of education, and especially untrue of education before the reforms. I have always found in education things that I felt fell short of its true nature, but I have seldom been censured for pointing this out. This was especially true when I was a young teacher, and, as I see it from this distance, embarrassingly short on tact and sensitivity in the manner of my expression of those concerns. But, even then, I found that the people in charge—Inspectors of Schools and Department of Education officials—welcomed and even encouraged criticism. I am more than a little proud of those people. I think of them with affection and gratitude. They kept education purposeful, energised, and exciting for teachers. They did this by ensuring that public debate remained vigorous, and by trusting teachers. It hardly needs saying that teachers are not all equally skilled or talented. But the people then in charge ingeniously found ways of helping the struggling teacher without simultaneously hamstringing others who flourished playing their natural game. I think of these wise leaders with sadness too; will we see their like again?

Soon after the reforms began I met the new breed of people in charge and found, with notable exceptions it must be emphasised, the opposite of the generous openness and trust so characteristic of the earlier period. I found that debate was not only unwelcome, it was viewed as a cancer, and those suspected of holding ideologically impure thoughts were seen as infectiously diseased. In this new and hostile environment, public education space vanished.
Doubtless, the reader will suspect me of overstating things here, so a brief illustration is called for. Before I illustrate, a word or two on the approach I have taken with respect to writing about these reforms. Economic rationalism and the scientific management of education are international phenomena. The reforms I am discussing have occurred in a wide scattering of countries across the globe, and under more or less the same conditions. When I began this book I toyed with whether to be international or local in my focus, but I stopped debating with myself when I realised that the most effective way of addressing the transnational problem is to deal comprehensively with its specific and localised characteristics. A sheep’s-milk cheese from Roquefort works its magic across many and varied nations precisely because the cheese makers in Roquefort-sur-Soulzon make cheese in and for that region. Knowledge of the *Iliad* is enhanced by understanding the dispute between neighbours over the precise positioning of the fence separating their properties. Much writing on international education misses this point—I too am guilty. By excessively avoiding its provincial manifestations, commentaries on international education often become overly dislocated and diffuse. Even now when I read over what I have written I see I have not been regional enough when addressing the transnational. This leads me to my illustration which zooms in on my local district, and indeed, on events I have experienced.

At the time the reforms began, I was nominated by the country’s teacher education institutions to represent them on an advisory committee aimed at reviewing national assessment and qualifications structures. The proposed new system was to be based on the precise definition of the outcomes to be achieved at particular standards. The viability of this system hinged crucially on whether or not a standard, and indeed a hierarchy of standards, can be defined. The key word here is ‘defined’—not ‘illustrated’, ‘worked towards’ or ‘recognised’, but ‘defined’. The new breed were smart enough to know that if this brick in the wall crumbled the whole wall would fall, and if that fell, so would scientific management. It is not difficult to show that, apart from trivial cases, standards and hierarchies of standards cannot be defined—although they can be illustrated, worked towards and recognised. So I pointed this out. In fact I went one better and argued that if it could be done, surely it could be done for mathematics, and I went on to indicate why it could not be done for mathematics, and therefore, not for any subject. I was not the only person saying this. Also on the committee was a professor of mathematics who supported and amplified what I was saying. How did the officials respond? Not by listening, not by producing counter-arguments, not by looking for middle ground. They said simply, ‘This can be done, and will be done.’ After the meeting, and off the record, they said, ‘We want you to resign from this committee.’ I asked those who had nominated me for their instructions. They said, ‘Do not resign.’ I stayed, and it was very uncomfortable. But that is how intimidation works. And that is how to flush down the toilet, reason, thoughtful listening, and practical involvement. But no one tried to stop me writing journal papers, so I made these arguments in that forum instead. Journal articles must be scrutinised and pass muster before they are published. This is their virtue, but they are not widely read, and so play only a limited part in stimulating public space.
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My current concern is the recovery of public education space. If it is to be re-vived, writers do have a part to play, but it must extend to a wider readership without losing its scholarly content. How? Gustave Flaubert recommended that writers aim to be generous, kindly, and accepting of others in their daily work, but violent and original in their writing. The essayist Neil Postman pointed out that writers find stimulation from dynamic societies that live on the edge and make mistakes. The best education system for writers is the one which is most burdensome. And, symmetrically, the best writers for an education system are the ones who are most burdensome. Accordingly, he exhorted writers to write with a sense of grievance, lest they become celebrants of the status quo. George Orwell disapproved of writing that is diffuse and watery from being too open-minded and charitable, preferring instead, a vehement expression of the writer’s dislikes. Each writer must choose his or her own way. I take my lead from Flaubert, Postman and Orwell because there are things in education that need urgent attention. With this in mind, I have attempted to present, particularly in this ‘opinionated introduction’, and to a lesser extent in the rest of the book, an unrestrained and undiluted protestation against bad education.

But not an undefended protestation. Any fool can find a way of forthrightly expressing himself. There is a lot of cherished nonsense about, and some of it needs to be culled. I take the part of the cautious iconoclast: someone who takes aim at loose and distracting images, but who also backs it up with arguments and footnotes.

It is not enough to just take aim and fire, however. “To choose doubt as a philosophy of life is akin to choosing immobility as a means of transportation,” wrote Yann Martel in Life of Pi. We need to learn from this. It is relatively easy to doubt, to be sceptical, to identify what is not working. It is a great deal harder to argue how things ought to be instead. Knowing what is ill without knowing what is well, is something we would not tolerate in doctors. Yet we find it running loose in education. Doctors might quibble with each other about the exact nature of an illness, but they agree about the nature of health. As a general rule, I doubt the same can be said of educators. We can, in part, blame this parlous state on the efficiency movement which was forced on education with the reforms. The problem with efficiency is that it is retrospective. It analyses things after they have happened. But it has no vision for things in advance of their occurrence. It can analyse how well a thing worked, but it has no idea what it is for.

I said ‘in part’ because efficiency is not entirely the cause of the problem. The neglect of education philosophy pre-dated the efficiency movement. Let me be more explicit by giving one from many examples of the problem. When those who aim to strengthen the theory of evolutionary psychology do so by encouraging their friends to eat more bananas and climb trees, we know they misunderstand their task; just as we know that the cyclical nature of history is not proved by convincing one’s neighbours to reuse last-year’s appointment diaries. Yet this same logic abandons us elsewhere. When computer scientists attempt to make a machine that thinks, we decide to help out absurdly by treating our brains as if they are central processing units connected to input and output devices. And when learning scientists attempt to mechanise learning, we try and meet them half way by artificially
decomposing knowledge to assembly-line chains of click-together components. And when economists try to hammer and cut education into the shape of a market place where commodities are traded, we make it easier by thinking of teaching as the provision of a service, and, in the manner of a contract, by awarding tokens for the demonstration of prescribed outputs.

The pivotal question is: Why are we so eager to please? I am becoming more and more convinced that the answer is: because, as educators, we have a poor sense of who we are and of what education is. We are too often empty vases in which we hope someone else will arrange the flowers—and there is always someone out there willing to oblige. So, in writing this book, I have attempted to both identify the problem, and go some distance towards articulating and justifying a vision for what good education entails to enable us to stand on our own feet.

This leads me to the question of the tone that education writing should sound—I speak only on behalf of myself here. My answer is, one that is engaging. But no one would disagree with that. Little is gained by academics writing for an exclusive audience of other academics. To be engaging, the content needs to be sound and the writing good. Again, this is common ground. But if the writing is appealing in other ways, surely that helps. I was once taken to task by a referee for a statement in one of my papers. This person objected to me writing: ‘In contemporary education, there is too much emphasis on the science of education, and not enough on the education of science.’ He or she—appropriately, one never knows which—did not object on the grounds that what I said was untrue, but on the grounds that it was amusing. To this I say, bollocks! It is possible to show a lightness of touch when dealing with weighty matters, just as it is possible to write with solemnity about a joke. Flippancy for flippancy’s sake must be avoided, but so must peddling the banal with an air of gravitas in the hope that readers will not notice they are being conned. A seriousness of tone does not guarantee a seriousness of content, and it puts off many readers, so one wonders why we place this barrier between our work and those who might find it helpful.

The process of anonymous peer reviewing is a very good one, and central to the maintenance of academic standards. I spend more than a little time being a referee, and am on the editorial board of a journal. But I say what I earlier said because a referee having a bad day can very nearly sink on a technicality a project such as this book if he or she does not understand the writer’s wider scholarly purpose. So please bear with me while I try to get an answer in before the question is asked. Needless to say, I have read many, many books on education. Some are superb. Some I read over and over. But, here is the curious thing, the overwhelming majority of these books are sober in tone. I am not saying that sobriety is bad, only that the diet available to readers is remarkably uniform in this respect. There must be a rule somewhere that forbids the paradoxical statement, the colourful analogy, the play on words, a comical air, and the vehement expression of a dislike. The reader will be aware by now that I have already bent this rule. I have done this for several reasons some of which are known. I have not yet mentioned another. I have only just awakened to the fact
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that young students at university, young teachers about to embark on a career, young policy analysts working in government, and young parents, have all had their entire formal education in the post-reform period. Indeed, many were born after the reforms began. They have not seen anything different. As one who saw at close range both the before and after periods, I feel a responsibility to write about what happened for this audience in particular. When I was young I was drawn to the substantial tale told with a grin. The same may be true of today’s young adults. Time will tell.

It is with this in mind that I have tried in this book to introduce a scholarly content based on my ongoing research, and at the same time avoid confounding the serious and the solemn. Where I have succeeded, I hope the lightness of touch is not mistaken for a lightness of content. I work on the assumption that a breeziness of style that drifts on occasions to the amusing helps keep readers engaged. As it happens, it is also stylistically appropriate given that my central theme is that the scientific management of education has brought to education a nit-picking and tedious atmosphere that is, frankly, boring.

There is one more issue I need to address before I introduce the content of each chapter. It is naïve to believe that economic rationalists and educators both want the same thing, only by different means. Education space has always been a contested space, so we are accustomed to discussion and debate about the best means of educating our young. In these exchanges it is taken for granted that education is a good thing. But what if a powerful group decided it was not, or if they decided it was only good for a minority of the population? All the evidence, it seems to me, points to the fact that, overall, economic rationalists, and their lieutenants, the scientific managers, want to see a decline in education vitality. The familiar invective against ‘rampant inefficiency’, ‘provider capture’, ‘falling standards’, and so on, is, when reduced to its core, simply an economist’s device, the goal of which is to make the disintegration of education seem inevitable unless education’s true spirit is dampened down and confined to something more mundane. Why would anyone want to do that? The short answer is: not everyone believes that education is a common good. Some think of education as a scarce commodity, and that there is only so much to go around. For these people, education should be reserved for the privileged minority. The rest should be pacified by more humdrum fare. There is an important distinction here. A two-tier view of education is the most common one around, and always has been. For evidence it is informative to look at the intellectually diminishing content that was, and is, routinely dished out to lower achieving students—as if they have no curiosity, no right to a self-rewarding education, and no aspirations. But this evident fact is taken by teachers to be an embarrassing and regrettable failure on their part, and that of the education system. Like depression, it happens but no one likes it. And everyone works to change things. Economic rationalists see it differently. Of course, they will never come out and say this, but the evidence is in their deeds, in particular in the social dislocation caused by their policies. For them, the ideal is education for the minority, and schooling for the majority. This is
the larger context within which this book is placed, although its focus is narrower because much has already been written, including by me, telling the larger socio-political story. What do true educators recognise as their calling? Postman got it right when he said that educators ask three fundamental questions: (i) What is intelligence, and how should we work to increase it? (ii) What is worthwhile knowledge, and how should we assist students acquire it? And, (iii) what is the good life, and how should we help our young live it? These are large, open and intriguing questions. The pursuit of answers to them makes genome research, the quest for a universal field theory, and advanced mathematics seem a doddle. With what spirit should an education that is commensurate with the answers to these questions occur? This is one of the questions that motivates this book.

G. K. Chesterton wrote of the man who, having lost a half-crown on a dark night, searches under the streetlamp because that is where the light is. This man’s predicament is our own. Faced with pressing problems, we typically search for solutions among the ideas and concepts that lie at hand, simply because they are the ones we understand. But the lamp of the conventional and familiar is frequently part of the problem. This, in my view, is the case with contemporary education. Accordingly, in the chapters that follow we explore the shadowy areas in search of a better way of imagining education. This requires patience because the flowering of imagination cannot be hurried. Ideas that run against the grain of what is tacitly assumed are sometimes very nearly unthinkable. To the extent that they do reach the edge of comprehension, they may seem to be wrong, even absurd. But this on its own is no reason to dismiss them. The idea that a feather and a brick both accelerate at the same rate when dropped in a frictionless atmosphere is, at first encounter, unbelievable. But it is an idea that, when fully envisioned, is found to be viable.

Chapter One sets the ball rolling with an outline of how we have become fixated on carefully managing education. The trouble with our current instinct for detailed supervision is that it tends to blind us to the fact that the purpose of such carefulness is to encourage education to be wholehearted and carefree. In a way that is both tragic and hilarious we have allowed the means to eclipse the end. What has led to this state of affairs? This is taken up in the second chapter which explores how we have come to think of education as an ‘expert system’. Expert systems bring about a number of undesirable consequences. One is, they erode what I will later argue is the proper relationship between teachers and learners: that based primarily on an attitude of care and responsibility. Expert systems, we will see, also result in education space becoming privatised, elite-ruled, and artificially designed. It becomes—or rather the attempt is to make it become—what I call a ‘literary’ space, one that is readable and recountable in ever increasing detail. Paradoxically, the attempt to impose an order on education space results in the opposite: a manufactured disorder. What exactly is this expert system? This question is approached in Chapter Three via another: How does the concept of assessment address the world? Needless to say this is not the usual sort of question asked about assessment. The investigation of it leads to the conclusion that the year 1980 was a pivotal year in education history because this is the year that saw the birth of
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scientific management in education made mandatory through legislation. Was the imposition of scientific management a good thing? The evidence from a number of studies in the countries where it was introduced in its purest form shows that it was, in the main, damaging. Chapter Four presents a representative sample of the available evidence, and goes on to investigate the effect scientific management is having on the identities of those who work in education.

Chapter Five is a bridging chapter between the statement of the problem and the introduction of an alternative way of thinking. Here findings from recent research in neuroscience are discussed—in particular, those that point to the proposition that curiosity and wonder are primary motivators. The chapter also points out the weaknesses in the taken-for-granted theories that underlie scientific management: behaviourism and cognitivism.

If we were to stop thinking of education as an expert system, how might we conceive it instead? Chapter Six begins a five chapter answer to one aspect of this question by discussing the nature of the spirit of education. The spirit of education is not vague, insubstantial, or merely subjective. But it cannot be reduced to the level of the purely technical. We will see that the spirit of education is intersubjective, and involves an awareness that education is oriented by a realm of qualitative distinction that, although real, cannot fully be made explicit. The next four chapters build on this general introduction to the nature of the spirit of education. First, we see that a spirited education is characterised by an attitude that brings into balance the opposing forces of self-assertiveness and wonder. Second, education, at best, involves learners experiencing surprise, and enjoying that experience. Again, recent findings in neuroscience are shown to be relevant here. Third, a spirited education is one that is engaged in for its own sake, not as a means to an end extrinsic to it. This last argument has been made before. Here it is re-presented in an updated form. In particular, recent research on the nature of intrinsic motivation is drawn into the discussion. Fourth, education, at best, holds itself lightly and with a comical spirit. This proposition will no doubt surprise some readers. In forming it I am influenced by a number of commentators—Ludwig Wittgenstein among them—who warn of the traps modern individualism can lead us into. One of these is a deeply rooted desire for certainty and control. This existential desire can and has led to tragic consequences for both human society and the world. Education, I argue, ought to play a role in pricking the bubble of this unhealthy longing.

Orthodox education theory is radically individualistic, and chronically misrepresents the true nature of responsibility, trust and care. In so doing, it prevents these from taking their proper place at the heart of education. In Chapter Eleven a number of arguments are brought into the discussion of this proposition, including Logstrup’s notion that some fundamental relationships are primordial and sovereign, Sudnow’s phenomenology of competent know-how, Dreyfus’s notion of a strategy without a strategist, and the idea of a medial voice that resides between the active and passive voices of language. In the twelfth chapter some of the ideas outlined in Chapter Ten are explored in greater depth. In particular, since orthodox education under scientific management is dominated by the systematic drive to identify the facts
that define education space, the nature of a fact is investigated. It is further indicated how educators might teach students to ‘talk back to’ the facts that are presented to them; or, to put it differently, it is shown how teachers can help students to do what Bruner refers to as “subjunctivising reality”—to think in terms of “human possibilities rather than in settled certainties”.6

The administration of education under scientific management is thought to involve, by those who administer it, the use of hard-nosed critical thinking and objective observation. But they mistake the nature of both critical thinking and observation. This claim in justified in Chapter Thirteen. In the chapter that follows, one of the central pillars of scientific management—the idea that a standard can precisely be defined—is challenged via a formal reduction ad absurdum argument that points to the contrary. More generally, this chapter outlines some of the thinking tools educators will need if public education space is to be reclaimed.

Scientific management is called ‘scientific’, but is it really scientific? In Chapter Fifteen the nature of science is discussed, the idea of the ‘hardcore’ of a theory introduced, and the machinery set up for critically investigating a number of treasured, but weak, ideas in orthodox education, such as the idea that learning entails moving through clearly definable stages and levels of development; and, indeed, the idea of scientific management itself. This leads to a discussion of a phenomenon that has long mystified me. Why, given the evident weaknesses in orthodox education theory, is this theory so widely accepted as the right and proper basis for education? This issue was touched on in Chapter Ten—during the exploration of our modern tendency to hold what Wittgenstein calls ‘superstitious’ beliefs—but it is now investigated in a different way. It seems to me that, as a general rule, we are insufficiently aware of the blind spots that our favoured theories create in our thinking. Perhaps, if we understood more about the workings of our brains in this respect, we would be less inclined to accept the privatisation of education space, and seek instead a robust public space in which our theories might be examined for their blind spots. With this in mind, Chapter Sixteen investigates the nature of cognitive blind spots.

The final four chapters begin laying out more concretely the ground for an alternative conception of education. My principal aim in these chapters is both to undercut the current faith in maxims, codes and standards as viable ways of guiding the practice of teachers, and to bring together the elements of a better way of thinking. Chapter Seventeen looks at recent research from neuroscience on the full-bodied nature of know-how. Prominent among the ideas brought into the investigation is Antonio Damasio’s notion of a somatic marker. In the following chapter, one aspect of full-bodied know-how that is crucial for learning, the nature of creativity, is investigated in greater depth. It is shown that this pivotal element also involves embodied structures. In the next chapter, the radical individualism of orthodox education theory is called into question and an ethical approach introduced via a discussion of recent findings in neuroscience, primate studies and psychology. In Chapter Twenty these arguments are brought into dialogue with those from ethical philosophy. The book ends with an outline of
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how the nature of both responsibility and justice can be rethought as primarily ethical and embodied, rather than as orthodox conceptions would have it, as primarily codified and contract-based.

NOTES

1 Not his real name.
5 Most recently, Neyland (2007a).
CHAPTER 1

CAREFREE EDUCATION

This book deals with a problem in education that was caused during the 1980s and 1990s when a group of well-placed economists and management theorists decided that they knew best how to run education. This first chapter is a prelude to the rest of the book. It introduces in broad and general terms the shape of things to come.

WOLVES IN DISGUISE

The worst kind of bad education is the sort that dupes us into believing it is good. These wolves dressed as lambs do not alarm us. Instead we are lulled into thinking we are doing what is best, when all the time we are doing what is worst. We recognise and avoid the enemy who attacks, but welcome the kiss from the duplicitous friend. What are these education deceivers? They abound. Consider, for instance, the following four jewels in the crown of orthodox education practice: lesson planning, assessment, learning outcomes, and codified professional standards. These are the sort of things I am referring to.

Lesson planning sometimes leads to freedom of thought and open learning situations that arouse curiosity, but mostly lesson planning places thought in a straight-jacket, limits the teacher’s autonomy, and robs education of spontaneity. Assessment sometimes provides useful insights into the process of education, but mostly it brings into education an air of market-place trading and performance contracting. Learning outcomes sometimes help distinguish the profound from the trivial, but mostly they deprive learning of its aura of enchantment and surprise. Codified professional standards sometimes guide teachers over unfamiliar terrain, but mostly they corrode relationships of caring and responsibility, thus removing from education the factor that, more than any other, results in the achievement of excellence.

But there are other places we can go to find doubtful truths uncritically accepted; self-esteem, for instance. There is no question that self-esteem is of vital importance. It is necessary for education. But it is not sufficient, and it does not have ultimate importance. Zygmunt Bauman, Emmanuel Levinas, Knud Logstrup, Paul Ricoeur, Neil Postman and Charles Taylor have in different ways outlined persuasive arguments that lead to the conclusion that, although raising self-esteem is both necessary and desirable, it ought not to be a larger goal of education. Why? Because as we will see in later chapters the achievement of healthy individuality requires that we recognise that the physical and social world is given to us in advance of our acting within it. We are improvisers working with things ready to hand that help us.
The mistaken idea that self-esteem is somehow sovereign is an unfortunate legacy of mid-twentieth century radical existentialism, which proclaimed that individuals are solely responsible for creating a meaning for their lives in a world that has no meaning because it is essentially disordered. Accordingly, the individual is called heroically to marshal her resources of esteem and make the world her own. This idea is more than mistaken; it is slightly cruel in as much as it asks from the individual more than anyone is able to give. Sharply put, the achievement of healthy individuality demands that students learn to esteem not only themselves but something other than themselves. Believing that raising self-esteem is a necessary and sufficient goal for education is as absurd as believing that so long as everyone is learning, all is well. Holding some things in high regard, and changing through learning, are windows in the house of education, but they need to let in the light.

These are just examples of the wider confusions of priority I am concerned about—the wolves in disguise. There are others I will introduce as we proceed. These things that I have called confusions—now piling one on top of the other—have become invisible in their familiarity, and are taken uncritically as normal. Accordingly, we can claim the dubious distinction of having made acceptable practices and conventions that ought to appal us. But they do not because they have become part of the orthodox consensus in education, a consensus that is seldom questioned. Mostly they are left alone because they were dreamt up by those in authority, and have their stamp of approval, their imprimatur. The orthodox consensus is what it is because it is also the authorised consensus. Overall we have now an education system that is stumbling under the weight of these so-called good practices. We have now the situation where education is suffused by a cowering, utilitarian atmosphere that on the whole leaves it repressed, joyless and ineffective.

These are bold statements, and perhaps unexpected. They go against the conventional wisdom. In this book I aim to show, at the elementary level, what I mean by these improbable claims, and to indicate how they can be defended. In making these assertions I should immediately make it clear that I do not blame teachers or administrators for this sorry state of affairs. These stout-hearted educators are not the offenders. They are valiant labourers in a system they had no part in designing. It is elsewhere the finger must be pointed. But it is not enough simply to indicate the cause of the problem. The problem is wrapped in a protective skin of many and varied falsehoods. These need to be exposed to the fresh air of heretical thought. Agricultural farmers sometime aerate the soil in preparation for planting. They use a spiked drum towed behind a tractor. The spikes surgically open up the ground without turning it over. The process is called scarification. That is my aim. To scarify the authorised consensus. To puncture it with pins of disbelief.

HEALTHY EDUCATION

During the 1980s people in authority told us that education was sick, and prescribed medicine. They were wrong on two counts. First, education was not sick. Of course, it was not perfect either. But perfection is not something we should ever wish to achieve. That would be like suddenly and magically being given everything you
ever hoped for. Who would wish for that! It is our hopeful striving after perfection that keeps us and our social institutions alive and flourishing; not the magical genie. It is our desire that motivates us, but not a desire we ever want prematurely fulfilled. There are always improvements that can be made. But it is a colossal error to mistake a state of healthy growth and development for a state of sickness. A growing child is not sick because she is not yet an adult.

Second, even if education were believed to be sick, the healthcare regime prescribed by those in authority betrayed a grossly distorted idea about what healthy education is like. The humourless and pedantic scientifically-minded engineers—when I say that, I hope it is clear that I’m not describing individual people, but a representative attitude of mind—who took control neglected one crucial thing. They lost sight of a simple and obvious fact: that when you are ailing you only take healthcare in order that you may later be carefree. A person with a sore head swallows bitter tablets, wears a neck brace, and moves gingerly only in order that she later may dance and sing. If a remedy is characterised by a pedantic and earnest disposition, it is only so that later things can be incautious and exuberant. A healthy education is not careful and restrained, it is careless and free. To put it differently, while we do need to take care of education, we must be stingy with our careful control lest we prevent the experience of education from being fulsome. Education is undoubtedly a serious matter, but, as with most of life’s good things, it should not be taken with an air of seriousness. Indeed it is this very quality that is behind the growth of human culture and science. “The most powerful drive in the ascent of man,” wrote Jacob Bronowski, “is his pleasure in his own skill. He loves to do what he does well and, having done it well, he loves to do it better. You see it in his science. You see it in the magnificence with which he carves and builds, the loving care, the gaiety, the effrontery.”

Unfortunately, the serious minded analysts were so inwardly focussed on the technical apparatus of the cure they did not look up and around and pay attention to what they were curing for. As a consequence, we have something that is called education, something that bears a passing resemblance to education, but something that on closer inspection proves to be a pared back, restrained, micro-managed version of its better self—we have a caricature of education, a careful and boring education, a legalistic and sterile education.

Under the stewardship of the technocrats who rule, education has been subjected to the tenacious and unrestrained application of the scientific and engineering model of analysis—unrestrained, because mitigating factors and alternative conceptions have been disregarded. Education—if you will allow me to play with the analogy a moment longer—has been examined using chemical dyes and electron microscopes. Its DNA has been scanned, and its genetic code broken.

Genuine DNA research on living organisms is an instance where science—in this case, good science—has done education a sterling service. Scientists have now broken the genetic code of humans, and found it to be ninety-four percent the same as that of the rat. There is an important message here, and it is this: genetic codes leave a great deal unaccounted for. Scientists have now proven that codes have a limited explanatory and deterministic value. We cannot thank them enough.
We know, without the help of science, that we humans are not ninety-four percent rat even if our genetic codes are remarkably similar. But we sometimes seem reluctant to draw the equivalent conclusion about education. Could it be that codified education—and we are currently witnessing a systematic drive to codify it—is no more the real education than a rat is a human person?

But the clinical investigation of education did not stop there. Subject areas—history, mathematics, literature, science, art, and so on—have been similarly analysed, and an attempt has been made to reduce them to their component bits and pieces, like a dismantled clock. The educator and mathematician Hans Freudenthal writes with bitter disapproval of this practice. “Atomisation”, “dividing into diminutive pieces”, and the like, is “the most fashionable wisdom of the instruction industry.” Subjects are ground down to “powdered form” and “administered by spoonfuls.… Isolating, enumerating, exactly describing concepts and relations, growing them like cultures in vitro, and inoculating them by teaching—it is water to the mill of [these] pedagogues and general didacticians.”

He cites, as an extreme example, an American book that systematically catalogues school mathematics into a list of two-hundred-and-fifty-thousand concepts. Now, a quick calculation will show that this figure is probably not accidental; it is the number of days a young person spends at school. Schooling for the children in the American state that uses this book will be like a thirteen year prison-sentence working at an assembly-line. Each day one more outcome on the chain will be taught, practised and assessed—today, multiplying a decimal by ten, tomorrow, multiplying a decimal by one-hundred, the day after, multiplying a decimal by one-thousand. Solitary confinement would be more fun.

I do not want to be misunderstood here. I am not saying that practising skills is unimportant. Practising to make automatic is essential, and so is memorisation. But there is a great deal more to education than skill development and memorisation. These things are like protein in the diet, but a healthy diet needs also carbohydrate for energy. Skewing the diet leads to food becoming junk food. Skewing education towards too much, or too little, practising of skills leads to junk education, and junk education, like junk food, although superficially attractive, passes through with little beneficial effect.

TRUSTFUL CARING

What has become of teachers while all this has been happening? Many are fatigued—and who can blame them? Worse, some are in the grip of something more insidious than fatigue, they are losing their sense of inner resourcefulness. They are experiencing a loss of spirit. The very core of what it is to be a teacher has been eroded. This core is the ability to respond directly with empathy, responsibility and spontaneity to the needs and curiosity of their students. Directly. Not mediated by codes and protocols, not interpreted darkly through the lens of an assessment instrument, not constrained by distant commands from the faceless voice of authority intoned in the outcome statement and the lesson plan. The education reformers of the 1980s and beyond made a cut-off-your-nose-to-spite-your-face mistake. They took care
away from where it was most needed—the caring of the teacher for her students. And they put it where it was needed least—in the careful control of the education system.

If you could change one, and only one, thing about education, what would it be? My answer is this: stop preventing teachers from trusting fully in the intelligence of their students. We will see in Chapter Eleven that trust and caring are sovereign and primordial experiences given at the same time as we were given life. But they can be made deficient, and this is precisely what has happened under the rule of the economist and management theorist. Sadly the education system, as it is currently set up, makes it very difficult for teachers to exercise the sort of trust and caring I am advocating, and its lack has become a dry rot. Let me begin to explain what I mean, by recounting a little tale—adapted from a well-known fable—I wrote for another book. This tale is about caring and how it can be ill-directed and eroded. I call it Debbie’s story; it is a myth based on fact.

Debbie is five and a half. She enjoys mathematics and likes to explore numbers. She invents things about numbers. Yesterday she found fourteen different ways of showing the number nine. Her teacher likes mathematics, too, and Debbie is eager to find out more about what adults can do with numbers. One day a new teacher comes to the class. During mathematics time the new teacher says she wants the children to do some addition. Debbie likes addition; she knows lots of different ways to combine numbers, and starts to explore some new ideas. But the teacher says, “No Debbie, I want you to do it this way.” So Debbie learns to add the teacher’s way. The next day the new teacher comes again and Debbie waits this time to be told how she is to do things.

Debbie is learning to be passive, to accept that the teacher’s way is better than her own, and that rule following is more important than inventing. She is learning that it is not important to mess around with numbers, to get to know them, to make them friends. Soon she will learn that mistakes are bad, that uncertainty is a problem, that understanding should be immediate and that mathematics is a never ending string of skills to be learned one after the other. Eventually, she will give up trying to make sense and rely on rote learning. She will learn to be discouraged and frightened by mathematics. She will find she cannot understand all the explanations. She will begin to doubt her intelligence. Some of her teachers will try and help her by breaking the sequence of skills into smaller and smaller steps. They will discuss her learning difficulties in their meetings and try and find ways to help her. They will try rewarding her for learning these simple skills. But all this will only reinforce her belief that she is stupid, and that mathematics is lifeless and difficult.

In this little tale it is evident that the teachers do care for Debbie. But it is not quite the right kind of caring. Their empathy and feelings of responsibility are ill-directed. One might even say, with a sympathetic but heavy heart, that their feelings of caring are used for dissolute purposes. This is another one of those confusions of priority I began with. The teachers in the tale care, but they do not trust. They care about her learning, but they do not trust her intelligence. That is it in a nutshell. Something is learned here, but it is an urgent and terrible message. Debbie has discovered that her teachers believe that she is dumb.
The message Debbie receives—that she is stupid—is not empty or ambiguous. She does not misread it or doubt it. This is because it cuts to the heart of her identity. Her self-identity is to a considerable extent shaped by those people who are important to her, and this includes her teachers. Because matters of identity are an intense concern—especially for the young—she is highly sensitised to this message. Equally, she does not doubt that she is not trusted. There is no state of being almost trusted, just as you cannot almost tell a joke. Either the joke spontaneously evokes laughter, or it does not. There is no approximating position. Trusting has no grey areas. And neither has being cared for. Students can instinctively spot an impostor who holds back. There is only one way to trust and care; it must be fully and uninhibited, and without second thoughts. This, of course, takes courage. It is the courage needed for teaching.

The message Debbie received in bold letters is hit home with force by the processes of instruction—I cannot call them education—she is subjected to. These reinforce a wrong view of intelligence: that intelligence is purely analytical and deliberative. They reinforce a wrong view of knowing: that knowing is rule following and information storing, like a computer. They reinforce a wrong view of learning: that one learns something quickly, or not at all. And they reinforce a wrong view of teaching: that teaching is all about preventing the learner from experiencing uncertainty and confusion. The truth is, a great deal of learning necessarily requires periods of uncertainty and confusion as students pass through the in-between land between innocent and nuanced conceptions.

Caring without trust breeds dependency relationships; debilitating ones. The student is made dependent by first making her passive. None of this is deliberate. It is the outgrowth of a genuine desire to enlighten the student, an understandable need on the part of the teacher to feel needed, and a misplaced understanding of professional responsibility. ‘When a student is feeling confused about subject material it is my job to remove that confusion.’ This is the unspoken understanding that neither student nor teacher doubts. They do not doubt that the sun will rise tomorrow. And they do not doubt that it is the teacher’s job to make learning easy. The fact that this understanding leads to unintended and unfortunate consequences is passed over.

What typically happens over time—especially when education is outcomes led—is that the teacher and student settle into the familiar roles of rescuer and rescued. Rescuing at moments of incomprehension leads almost without fail to a process of atomising the knowledge area concerned by dividing it up into a plethora of nebulous facts. These facts are then spoon fed to learners. This results in a superficial, or surface, kind of learning. In effect the students are being slowly ‘inoculated’, to use Freudenthal’s apposite term, against deeper forms of learning.

What should happen instead? In the case of mathematics Afzal Ahmed and his research team working on The Low Attainers in Mathematics Project have no doubt:

In many cases low attainment is a direct result of the restricted and unfulfilling nature of the work pupils are given. They need challenges to get their teeth into…. Mathematics is effectively learned only by experimenting, questioning,
reflecting, discovering, inventing and discussing. Thus, for children, mathematics should be a kind of learning which requires a minimum of factual knowledge and a great deal of experience in dealing with situations using particular kinds of thinking skills.²

Do teachers choose to care in an ill-directed way? I doubt it. Pressure is put on them to operate like this. It is this pressure from outside that concerns me here. It comes from the current orthodoxy in education management: the scientific management of education.

AIMING FOR EXCELLENCE

The absence of trust, we have seen, is a recipe for failure. Is there a recipe for success? Fortunately, no. If there were, education would quickly become menial and dispiriting. However, we are told insistently that science and the market will uncover the correct path for instructional success. (Note: When I use the word ‘science’ in this context I am referring to ‘management science’, which is not a science in the true sense; it is really a data gathering mechanism associated with a narrow, technical understanding of efficiency; more on this later in the book.) The truth is, there is no method that will guarantee success. There is no fully reliable path, no algorithmic formula.

But there are things to avoid. One is: steer clear of following the advice of experts. I know that sounds wrong—another heresy. Let me explain a little. Never attend a course on how to become rich. Why? You can only learn how to become rich from a person who knows how to become rich. And, for obvious reasons, a person who really knows how to become rich will never be found running a course on it. For the same reason, never attend a course on how to become a leader. Why? You can only learn leadership from a genuine leader. And a genuine leader would never lead in this way. Similarly, it is easy to spot the fake education expert. She is the one who comes armed with a method, with codes and research data for guiding professional practice, and with advice she expects to be followed because she knows best. The genuine education expert could not be more different. I will explain why in the next chapter. So, do not follow the advice of an expert for the simple reason that a real expert feels her equality with you and is more interested in learning from, and exploring, your ideas than in telling you what to do.

We hear a lot of talk these days from so-called experts about excellence, efficiency and standards. These are typically presented as aims for education. But this is a fundamentally wrong-headed way of thinking. Of course, no one wants a mediocre or wasteful education, or an education in which erudition and vapidity vie equally for our attention. But aiming for excellence in education is like aiming for a growl when what you really want is a dog. It is like mistaking the cold abstract concept of the sphere for the incandescent sun. Any decent education results in excellence. But not by aiming for it.
Target minded thinking of this sort is another popular confusion. It is a common experience that trying to fall asleep, or focusing on falling asleep, are the wrong ways of becoming sleepy. We fall asleep most easily when we do not aim for it. If anything, it is by aiming somewhere else that brings sleep. Trying to will oneself to sleep is more likely to invoke insomnia; it is self-defeating. The same can be said of falling in love, laughter, and sexual pleasure. They come by the indirect path. The same is true for happiness. If we aim at being happy we will miss our target, because, as the saying has it, the search for happiness is one of the main sources of unhappiness in the world. John Stuart Mill put it neatly when he said: “ask yourself whether you are happy and you will cease to be so.” To be happy we must focus elsewhere, and it will come.

Similarly with education. If we focus on excellence, efficiency and standards we will, by the very act of enquiring about these, cease to have them. This is why the current obsession with assessment and testing is dopey. If I value fitness and enjoy swimming it is better to swim than to aim at getting fit. By swimming I will become fit. Sleep, love, laughter, sexual pleasure, happiness and excellence cannot be pursued; rather the focus needs to be on finding that particular attitude of mind that will allow them to ensue. Excellence comes as a natural consequence of uninhibited, curiosity-inspired learning. Excellence should not be a goal.

If there is no recipe for success, no expert to instruct, and excellence can only be achieved by not aiming for it, where should we place our focus? The teacher. An understanding of the intricacies of DNA analysis and the mapping of the human genome requires training in nuclear biology. Discerning the movements of the planets requires an astrophysicist. But understanding education requires first and foremost that the teacher is a self-aware human person. In fact, the same aloof temper that leads to success in the study of the nucleus or universal field theory can lead to catastrophe in the study of education. To know what trust, caring and responsibility are I do not need to consult an expert. To understand empathy, curiosity, ambivalence or despair I do not need a manual. To know the love and excitement that can be had for history or music, or whatever other subjects I teach, I do not require preset goals to strive for, or codes of practice.

These qualities—empathy, curiosity, and so on—are at the heart of education. Excellence will not be achieved by aiming for it. If it does come, it will only come through the full flowering of intelligence. This requires the learner taking the risk of stepping out into the unknown. Most will not take this risk if they do not know in their deepest instinct that they are cared for by their teacher, and that she too wants to experience the ecstatic pleasure of discovery. But, for the reasons outlined in the previous section, any caring must be trustful caring. Nothing less will do.

CONCLUSION

At the heart of education there are two crucial relationships. One, that between the teacher and the student, is based on trust and caring. The other—that between the learner and the world—is based on curiosity and wonder. Each of these
relationships has been corroded by the recent introduction into education of the expert system and its attendant idea of education expertise. These are discussed in the next chapter.

NOTES

4 Neyland, 1996, p. 3.
CHAPTER 2

THE CULT OF EXPERTISE

There are things that are taken for granted in education today that ought to be critically examined. Many of these can be traced directly to the brand of restructuring that occurred in education during the 1980s and 1990s. The restructuring in question was based on what is called ‘scientific management’. This changed the way teachers planned, assessed and generally organised their teaching. It also subdued the education landscape and the spirit that ought to animate education. It brought instead an emphasis on careful data gathering within education space and the systematic analysis and organisation of that space. This resulted in the taught subject areas being atomised to component parts to aid systematic instruction, and codified standards and protocols being introduced. All this gave rise to a class of so-called education experts who took it upon themselves to rule education space by defining the outcomes teachers and students were to achieve. Crucially this led to the erosion of caring and trust in education, and to both the teacher and the student losing autonomy. In short, scientific management gave us a mean-spirited education. This chapter outlines the nature of modern education expertise, indicates why it is bad for education, and points to an alternative.

TWO KINDS OF EXPERT

A dozen years ago I flew to the United States to visit Reuben Hersh. Reuben is a philosopher of mathematics and the author of a number of influential books. I had read particularly closely two of his books, The Mathematical Experience and Descartes’ Dream—each co-written with Philip Davis—and was in the process of designing a second-year university mathematics course which discussed the ideas in these books. So there I was, an insignificant academic from New Zealand, about to spend a day with an internationally acclaimed scholar. I was excited. But mostly I was anxious. I was in the main agitated by one question: How long would it take him to discover that, in comparison to his, my ideas are puny; at what point would he notice that my thinking is so shallow, blotting paper has nothing to suck.

If I had known then what I know now, however, I would not have worried. I would have known that when you talk to great and creative thinkers they are not interested in evaluating your ideas. They are not even interested in talking about their ideas. Rather, they are interested in taking your ideas, no matter how nascent, and making something of them; using them as a catalyst to fire their imagination and creativity. So Reuben and I were perfectly matched. My ideas were so ill-conceived they were going to stretch a genius. He, for this reason, found the experience stimulating. (I speculate, of course; his graciousness may have been a mask that hid his horrified surprise.) During our day together—we spent nearly all of it sitting on a
rock half-way up a small mountain in the desert outside Albuquerque, New Mexico—I learned a great deal, not because he told me things, but because he listened and discussed my small ideas and somehow seamlessly made them larger. I tell this story because it illustrates the difference between the genuine expert and the pretender. Reuben is the real deal.

So was Charlie Parker, arguably the jazz idiom’s greatest player. In jazz culture, an up-and-coming musician sometimes requests the privilege of sitting in for a couple of pieces with an established combo. Usually these requests are refused because any failure to uphold the band’s standards is resented by band members. But Charlie Parker, who was unsurpassed as a jazz improviser, saw things differently. He received such requests with enthusiasm. Why? Because he liked to learn from the newcomers’ ideas. He overlooked their weaknesses, encouraged them, engaged with them, and as a consequence, enriched both his and their music. Parker’s approach to leadership is simple, but, by the standards of contemporary education, most peculiar.

What is the test that distinguishes genuine from fake experts? Genuine experts, like Hersh and Parker, feel deeply their equality with the rest of us and want to learn from us. The fakes are acutely conscious that only they know best. The genuine expert comes into a teacher’s classroom and says, “Tell me your ideas, tell me what you are doing here, and let’s together see how we might build on this.” The pretender says, “I know best; this is what you must do.”

Who, in contemporary education, are these ersatz experts, these pretenders? In the main, they are not teachers or educators. They are economic and management theorists who apply what is called ‘economic rationalism’ to education. Let me give two examples of what I am referring to. During 1971, in the State of California, an Educational Management and Evaluation Commission was established to critically examine and restructure education. This commission had nine members: three were economists, three management scientists, and three learning scientists. That is, two-thirds were economists and management theorists. It is likely that none of the members were educators. Learning scientists need not be educators—typically they study things like training rats to run mazes, the nature of memory in worms, and the extent to which human cognition can be modelled by the computer—and had they been educators it is likely they would have been named as such.

In New Zealand, the Treasury played a major role in restructuring education. These economists successfully argued that educators should deliberately be excluded from participation in education leadership at the highest levels because they are “providers” who will “capture” education for their own selfish ends. In other words, the Treasury persuaded those in authority of the bizarre idea that those who know most about education—educators—because they also happen to work in education, must be prevented in having a say in its future shape and direction.

All this said, it would be disingenuous of me to claim that none among educators assume the role of the expert who knows best. For example, the curriculum writer, who prepares a document for others to follow, is, for those teachers who accept its right to rule their professional practice, such an expert. The qualifying clause is important. It takes two to make an expert.
EXPERT SYSTEMS

Why do some assume the mantle of expertise? The short answer is that we who live in the modern era place considerable faith in what are called ‘expert systems’, and these systems require particular types of expert to operate within them. What, then, is an expert system? Zygmunt Bauman argues that an expert system is characterised by five assumptions: (i) doing things properly requires particular knowledge; (ii) such knowledge is distributed unevenly; (iii) those who have it ought to be in charge; (iv) being in charge carries with it responsibility for how things are done; (v) for others, personal responsibility rests entirely on following the advice of experts.3

A belief in this sort of expertise is something like a default setting for many in contemporary education. Deference to expertise is in the air, like smog. It is a disposition that we find ourselves drawn to, especially when we tacitly accept the validity of these five assumptions. Because of its taken-for-granted status, and because it inculcates a passivity with respect to the expert who rules, expert systems resemble cults. I use the word ‘cult’ here in much the same way that Raymond Callahan does in his book Education and the Cult of Efficiency.4 However, we ought to be on our guard with respect to this cult of expertise, because when we buy into it, we become susceptible, as we shall see later, to a kind of madness: the madness of the single idea.

This way of conceiving responsibility within the cult of expertise is radically different from that to be outlined later in this book. For instance, in expert systems responsibility is free-floating because actions are framed in terms of authorised procedures, and consequently they are drained of ethical significance. My responsibility is not framed as an ethical responsibility for some person, but as a procedural responsibility to follow a rule. In other words, in an expert system true ethical responsibility is replaced by a spurious imitator: technical accountability. In effect, the ethical question—What does this person need from me?—is reduced to, Have I technically followed the correct procedures? In this way, writes Bauman, it is the “technology of action, not its substance, which is subject to assessment as good or bad, proper or improper, right or wrong.”5 We will see in the next chapter that ‘the scientific management of education’ is an expert system. So too are the ‘international comparisons’ and ‘best evidence synthesis’ movements.

The ‘international comparisons’ movement uses various modes of testing and evaluation—such as, the Trends in International Mathematics and Science Study (TIMSS), the Progress in International Reading Literacy Study (PIRLS), and the Programme for International Student Achievement (PISA)—to compare national education systems. The organisations which fund these comparisons have worthy aims, and those who design and administer the tests are well-meaning, and no doubt something good comes of them. But numerous questions can be raised about the validity and reliability of the comparisons made.

Further, what cannot be questioned is the high-stakes nature of these comparisons, and consequently, the seriousness with which they are viewed. If an unfavourable comparison in some area emerges governments, fearing unfavourable publicity,
jump and demand a change. Subsequently government officials closely monitor the national curriculum in relation to what is tested. What is the net result? These tests become a *de facto* globalised curriculum designed by an international panel of testers. In other words, we have a globalised expert system that in some way rules education. Teachers meanwhile are powerless to influence this distant hand which to some degree controls them.

The ‘best evidence synthesis’ movement aims to distil from the spectrum of research on education, through meta-analyses and meta-meta-analyses, those nuggets that ought to direct the practice of education. This movement, too, is doubtless motivated by laudable ideals. But, rather than liberate teachers, it also subjects them. This point is insightfully made by Sue McDowall:

> If being competent is synonymous with adhering to the norm there is no room for independence of thought or action. The ‘best evidence synthesis’ movement relieves teachers of the need to make judgments about what constitutes best practice…. because the thinking has been done for them. Worse it constructs their own judgments, if different from the evidence-legitimated norms, to be deviant…. This process subjects teachers. It makes them docile and obedient.… This is how norms close down the space for alternative thought and action.  

The expert system just mentioned is an example of the research-development-dissemination (RDD) model of curriculum development in that experts at the centre use research to direct teachers at the periphery. The spatial language here conveys a clear message that the expert is at the core of education. The truth is that the teacher is at education’s heart. The RDD centre-to-periphery model is a sincere attempt to turn research into practice. But, again, it is a wolf in disguise.

Because it distorts the relationship between teachers and students by removing its ethical significance, the expert system is not benign. It is also open to wider abuse. This is because sometimes research is manipulated or used selectively to deceive educators, and make them docile. This last statement sounds improbable. But sadly it is true, as the following example shows. When the architects of the 1980s’ reforms in New Zealand first turned their attention to education, the Minister of Education told his officials to conduct a survey of the community’s satisfaction with education. The results showed that in the main people were happy with the education system as it then was. The Minister’s response to his close officials was, “Wrong answer, do it again and get a different result,” or words to that effect. A new survey was designed and, unsurprisingly, it found that people disliked their education system. The Minister now had a mandate to start the reform process. This alarming incident was recounted by one of those officials during a lecture he gave after he retired.

I am not trying to be alarmist in reporting this story. And I am emphatically not saying that this still goes on. What I am saying is that this is how grassroots teachers had their professional autonomy usurped by so-called experts at the head of an expert system. Importantly, although progress is being made, teachers have not yet regained their professional autonomy. Further, because the coming generation of
young teachers was born either shortly before or since all this happened, their experiences of formal education have entirely been of an expert system; they have never known anything different. Or, I should say, if they have known something different it is because they have been lucky enough to have been taught by one of the heroic teachers who refused to submit.

What do these expert systems, both sincere and insincere, produce? First, they enfeeble two things that ought to animate education: curiosity and wonder. These systems lead inexorably to the requirement that experts provide a set of clear and unambiguous outcomes for learning, and outcomes-led learning, it hardly needs saying, quickly snuffs out the candles of curiosity and wonder.

Second, expert systems produce a monotonous uniformity in education. Or, to be more precise, a monotonous, increasingly globalised, uniformity in education. Such a manufactured homogeneity, argues Bauman, creates the illusion of equality, but it leads inexorably to a dangerous place: conformity. It is dangerous because, “conformity’s other face,” he warns, “is intolerance.” When experts speak with the voice of authority, when this authority is backed by state legislation, and when the profession accepts this authority, uniformity becomes the rule. In this carefully managed environment ambiguity is unsettling, and anyone who shows signs of unpredictability is feared for not being easily comprehensible. Expert systems do bring about a form of togetherness. But it is a togetherness of uniformity. True togetherness, however, is not based on conformity but on the human interaction that results from education philosophies colliding. True togetherness welcomes ambiguity and difference, and it finds its substance in the creative tension caused by their agonistic proximity.

So, expert systems erode ethical responsibility, trust and caring by giving undue prominence to procedural accountability, and they weaken the social bond by encouraging conformity. Putting it bluntly, expert systems in a small but not insignificant way dehumanise us. In addition to the ways just mentioned, expert systems result in the identities of teachers and students being increasingly compartmentalised within predetermined categories, and dissembled into aggregates of isolated traits in such a way that the human face cannot easily be re-assembled. Students, for instance, are constructed as learning organisms with certain capacities and attributes, and teachers are viewed as contractual agents performing a precisely specified service on behalf of the government.

How is this compartmentalisation achieved? Three tools are commonly used: the definition, standardisation, and measurement. These are part of what Peter Wagner calls the “large-scale conventionalisation” that accompanied the rise of modernity. In modern society, he argues, “conventionalisation and standardisation stretched through more social practices and left almost none less regulated; it pervaded them more thoroughly and in more detail, and the safeguarding of conventions was ultimately centralised in one location.” The definition is a form of social formatting which is used to partition social space into named and therefore defined categories. These categories are then standardised and made measurable in order that they be made objects suitable for administrative engineering. Eventually they come to be seen as the rational depiction of social reality itself.
THE NEED FOR WISDOM NOT EXPERTISE

In one of his essays Neil Postman points out that many of history’s most insightful and esteemed thinkers turned their attention, at some point in their maturity, to the study of education. He mentions, as instances, the following: Confucius, Plato, Cicero, Quintilian, Erasmus, John Locke, Jean-Jacques Rousseau, Thomas Jefferson, John Milton, William James, Ludwig Wittgenstein, Karl Popper, Bertrand Russell, Alfred North Whitehead, and John Dewey. Postman, it goes without saying, could easily have extended his list. For instance, he could have added the great Russian novelist Lev Tolstoy, author of *War and Peace*, who started a school and wrote a book on the teaching of reading.10

There are many more examples of celebrated thinkers who, at the peak of their powers of intuition and discernment, were enticed by the problem of education. Iris Murdoch wrote compellingly on the nature of the ‘good life’ and emphasised the importance of studying subject disciplines—she mentions specifically foreign languages and mathematics—as a means of gaining an understanding of what is higher in life and worthy of esteem. The acclaimed poet John Milton believed that the “reforming of education was one of the greatest and noblest designs that could be thought on”.11 Popper and Wittgenstein were at one stage in their lives primary school teachers. In fact Wittgenstein’s time as a teacher may have had a profound effect on his philosophical thought. Before he became a teacher he wrote the work most representative of his ‘early’ phase, *Tractatus Logico-Philosophicus*. After some time as a teacher he radically changed his mind on a number of issues and then wrote his influential and acclaimed *Philosophical Investigations*.12

Such powerful thinkers are not drawn to the contemplation of merely minor questions. Their evident interest in education is more than adequate testimony to the fact that education is both deeply complex and of supreme importance. It is not unreasonable to suggest that the problem of education is also enchanting; for nothing less would attract such creative minds. These educators addressed, in one way or another, what Postman identifies as the three central questions faced by education. (1) Which aspects of knowledge are of particular importance, and how should the young be introduced to them? (2) What is intelligence, and how can people learn to be more intelligent? (3) What is it that is better, or of significance, about the life well lived—the ‘good’ life—and how ought students to be prepared to live such a life?

These are questions as deep and wide as the Pacific. They require minds of exceptional refinement before even their scope can be understood, let alone answers found. Sadly, as we have seen, in the contemporary education climate we tend to ignore such great thinkers. Instead of reading and contemplating the meditations of these luminaries, we turn instead to small thinkers, the so-called experts who misuse scientific and technical approaches in an attempt to answer the three central education questions, and impose their imperfect answers on everyone.

In many areas of life small is beautiful. But when it comes to the great education questions, small is alarming. The cult of expertise results in the education landscape being paved in a simple black and white pattern, and in the requirement that all teachers accept this as a fair representation of the way things are. However, to know
intimately the workings of education requires a depth of knowledge and understanding that the experts who rule simply do not have, and it is impossible to obtain, even by the most penetrating mind. A sane person would recoil from the requirement to assume such a position of apparent knowledge. G. K. Chesterton’s words are applicable here:

While we can always get [people] intelligent enough to know more than the rest of us about this or that … we cannot count on the appearance of great cosmic philosophers; and only such [people] can be even supposed to know more than we do about normal conduct and common sanity. Every sort of [person], in short, would shirk such a responsibility, except the worst sort of [person], who would accept it.  

In the current education context, Chesterton’s ‘worst sort of person’ is the expert who believes in the scientific management of education through legislation; who applies the methods of industrial production to the education sector; and who views education as a raw material for social engineering, an object to be controlled, shaped and administered. These experts exhibit a particular kind of madness. This madness is not the kind of carefree madness that is the opposite of a suffocating seriousness; but the kind that is the source of undue seriousness and fastidiousness about detail. Experts are mad because they have lost sight of the complexity and enchantment of the central questions of education. They are mad because they have a distorted and narrowed view of education and behave as though it is comprehensive.

Technically-minded education experts do not pursue answers to the larger and more important questions because their methods of engagement do not lend themselves to this task. These experts believe either that these larger questions are unimportant, or, amazingly, that the scientific method alone will produce answers to them. In effect this means that they act as though great wisdom and insight are redundant. In this way the cult of expertise brings about two crippling difficulties: the larger questions, which ought to be a source of contemplation, are increasingly ignored; and worse, smaller questions, and their proportionately sized answers, are increasingly highlighted and invested with a spurious reverence.

Experts, because they have the madness of the single technically-oriented idea, lack imagination and a sense of irony. They cannot see that the world of education is enchanting. They cannot see that education is both art and science, that it is based on human ideas and infiltrated by education ideals, and that, at its heart is the ethical encounter. They have no sense of playfulness; and they lack the willingness to throw themselves into the conversation that is education. We ought not to fear the complexity and enchantment of the education world. But there is something we ought to fear. It is the madness of the terminally serious experts who lack a sense of irony and live in a small ordered cosmos of their own design. This is to be feared. We may feel sympathy for experts; we may admire their loyalty, their dogged determination to get the world into their heads, and their perseverance in ensuring that every rivet and cogwheel is optimally positioned. But we need to remember that pit-ponies are also hardworking, dogged and loyal.
CHAPTER 2

They are also dedicated toilers on a single track. While this quality is to be admired, and for straightforward tasks recommended, it is foolish to value it in education.

CONCLUSION

In contemporary education one expert system dominates. It is ‘the scientific management of education.’ This system was forced on education during the 1980s and 1990s. Interestingly it is intimately connected with the idea of assessment. In the next chapter I will outline the nature of this connection, and identify the core assumptions that lie at the heart of this expert system.

NOTES

1 Davis and Hersh, 1981 and 1986.
2 Berliner, 1994, p. 45.
4 Callahan, 1962.
5 Bauman, 1992, p. 160.
6 McDowall, 2005, p. 5.
8 Wagner, 1994, pp. 73, 102–103.
10 Collinge, 1977.
11 Quick, 1929, p. 215.
13 Chesterton, 1922, p. 84.