Chapter 1

The Problem and the Potential of Educational Change

The faithful witness . . . is at his[her] best when he[she] concentrates on questioning and avoids the specialist's obsession with solutions.
Saul, *Voltaire's Bastards* 1992

We have been fighting an uphill battle. For the past thirty years we have been trying to up the ante in getting the latest innovations and policies into place. We started naively in the 1960s pouring scads of money into large-scale national curriculum efforts, open plan schools, individualized instruction; and the like. It was assumed, but not planned for, that something was bound to come of it. We have never really recovered from the profound disappointment experienced when our expectations turned out to be so far removed from the realities of implementation. Indeed, the term implementation was not even used in the 1960s, not even contemplated as a problem.

That world of innocent expectations came crashing down around 1970 when the first implementation studies surfaced. People, especially those in the trenches, no doubt already knew something was terribly wrong, but the problem crystallized almost overnight in Goodlad *et al's* (1970), Gross *et al's* (1971) and Sarason's (1971) major studies of failed implementation.

There followed a period of stagnation, recovery and regrouping during most of the 1970s. Educators, especially in the first part of the decade, had a crisis of confidence. Perhaps the educational system and its inhabitants are not open to or capable of change? Perhaps, worse still, education, even if it improved, could not make a difference given social class, family and other societal conditions outside the purview of the educational sector?

As people plugged away, a few glimmers of hope came through. By the end of the 1970s the effective schools movement had accumulated

some evidence, and a growing ideology that schools can make a difference even under trying conditions. The studies of implementation success and school improvement corroborated the spirit if not all the details of these findings. On another front, intensive work on in-service and staff development by Bruce Joyce and others demonstrated that ongoing competence-building strategies can work. By 1980 we could say that we knew a fair amount about the major factors associated with introducing single innovations.

From a societal point of view this was too little, too late. As problems in society worsened, the educational system was tinkering. Even its so-called successes were isolated — the exception rather than the rule. And they were not convincingly related to greater student learning. There was no confidence that we should, let alone could, reproduce these minor successes on a wider scale.

By the early 1980s, society had had enough. By about 1983 — in fact, the date is precise in the United States with the release of *A Nation at Risk* — the solution was seen as requiring large-scale governmental action. Structural solutions through top-down regulations were introduced in many of the Western countries. In many of the states in the US — intensively so in some states — curricula were specified and mandated, competencies for students and teachers were detailed and tested, salaries of teachers (woefully low at the time) were raised, leadership competencies were listed and trained. Other countries (although Canada is much more uneven given provincial autonomy) paralleled these developments. In Great Britain for example, the Education Reform Act of 1988, heretically for that country, introduced a National Curriculum. Now we were engaged in large-scale tinkering.

Overlapping these top-down regulatory efforts was another movement which began after 1985. In the US it goes under the name of restructuring (Elmore, 1990; Murphy, 1991). Here the emphasis is on school-based management, enhanced roles for principals and teachers, and other decentralized components.

The present is a combination of bifurcation and confusion. The former is represented on the one hand, by centralists who see greater top-down regulation, accountability and control of the educational establishment as the answer. This includes, by the way, strategies such as local management of schools which attempt to place more power in the hands of local interests outside the school. The other hand of bifurcation is represented by the restructionists who see greater control by school-based teachers and other educators as the basic solution.

Many of the bifurcators are deeply convinced that they are right. Unfortunately they offer opposite solutions. For most of us, confusion

seems to be the most warranted state of mind in the early 1990s. The ante has been upped in that we are no longer considering particular innovations one at a time, but rather more comprehensive reforms. It has also been upped in that the solution is seen as too important to leave to educators. Governments (not just Ministries of Education) and business interests are now major players.

We are, in other words, engaged in higher stakes solutions with more to win, but also more to lose. It does not seem to be a good time to wallow in confusion. Tinkering after all can be on a small or large scale, its main characteristic being 'a clumsy attempt to mend something' (*Webster's New World Dictionary*).

I maintain that we have been fighting an ultimately fruitless uphill battle. The solution is not how to climb the hill of getting more innovations or reforms into the educational system. We need a different formulation to get at the heart of the problem, a different hill, so to speak. We need, in short, a new mindset about educational change.

A New Mindset for Change

Senge (1990) reminds us that the Greek word *metanoia* means 'a fundamental shift of mind'. This is what we need about the concept of educational change itself. Without such a shift of mind the insurmountable basic problem is the juxtaposition of a continuous *change theme* with a continuous *conservative system*. On the one hand, we have the constant and ever expanding presence of educational innovation and reform. It is no exaggeration to say that dealing with change is endemic to post-modern society. On the other hand, however, we have an educational system which is fundamentally conservative. The way that teachers are trained, the way that schools are organized, the way that the educational hierarchy operates, and the way that education is treated by political decision-makers results in a system that is more likely to retain the *status quo* than to change. When change is attempted under such circumstances it results in defensiveness, superficiality or at best short-lived pockets of success.

To put it differently, the answer does not lie in designing better reform strategies. No amount of sophistication in strategizing for particular innovations or policies will ever work. It is simply unrealistic to expect that introducing reforms one by one, even major ones, in a situation which is basically not organized to engage in change will do anything but give reform a bad name. You cannot have an educational environment in which change is continuously expected, alongside a conservative system and expect anything but constant aggravation.

The new problem of change, then, pursued in this book is what would it take to make the educational system a learning organization — expert at dealing with change as a normal part of its work, not just in relation to the latest policy, but as a way of life. In subsequent chapters we will examine the constituent components necessary for this change. The reason that we need learning organizations is related to the discovery that change in complex systems is nonlinear — full of surprises. Yet new mindsets can help us 'manage the unknowable' (Stacey, 1992).

We must also ask at the outset why is it important that education develop such a change capacity, or if you like, what is the promise of educational change if it were to get that good. One could respond at the abstract level that change is all around us, the self-renewing society is essential, education must produce critical thinkers and problem solvers etc. but these have become cliches. A deeper reason, which is the subject of chapter 2, is that education has a moral purpose. The moral purpose is to make a difference in the lives of students regardless of background, and to help produce citizens who can live and work productively in increasingly dynamically complex societies. This is not new either, but what is new, I think, is the realization that to do this puts teachers precisely in the business of continuous innovation and change. They are, in other words, in the business of *making improvements*, and to make improvements in an ever changing world is to contend with and manage the forces of change on an ongoing basis.

Productive educational change is full of paradoxes, and components that are often not seen as going together. Caring and competence, equity and excellence, social and economic development are not mutually exclusive. On the contrary, these tensions must be reconciled into powerful new forces for growth and development.

The full outline of the argument goes something like this. Society — for some time now, but increasingly moreso as we head to the twenty-first century — expects its citizens to be capable of proactively dealing with change throughout life both individually as well as collaboratively in a context of dynamic, multicultural global transformation. Of all the institutions in society, education is the only one that *potentially* has the promise of fundamentally contributing to this goal. Yet, education far from being a hotbed of teaching people to deal with change in basic ways is just the opposite. To break through this impasse, educators must see themselves and be seen as experts in the dynamics of change. To become expert in the dynamics of change, educators — administrators and teachers alike — must become skilled change agents. If they do become skilled change agents with moral

purpose, educators will make a difference in the lives of students from all backgrounds, and by so doing help produce greater capacity in society to cope with change.

This is not one of these goals that you can tinker with, that you can vaguely or obliquely expect to happen or that you can accomplish by playing it safe. The goal of greater change capacity must become explicit and its pursuit must become all out and sustained.

One could argue that we don't have much choice. At one level this is true. Few would deny that the ability to deal with change is one of the premier requisites of the present and future. But neither individuals nor groups are known for doing what is best for them, especially when the stakes are high. The historian Barbara Tuchman (1984) exposes this tendency in a grand historical sweep in the *The March of Folly*. Taking as cases in point, the Trojans, the Renaissance Popes, the British loss of America, and the American loss in Vietnam, Tuchman examines her basic thesis 'The Pursuit of Policy Contrary to Self-Interest'. For Tuchman a policy to qualify as folly had to meet three criteria: 'it must have been perceived (by some) as counter-productive in its own time . . . a feasible alternative course of action must have been available . . . the policy in question should be that of a group, not an individual ruler' (p. 5). Among other factors Tuchman cites 'Obliviousness to the growing disaffection of constituents, primacy of self-aggrandizement, illusion of invulnerable status' as persistent aspects of folly (p. 126) (see also CRM Films, *Groupthink*, 1992). Thus, those in authority are unlikely by themselves to conceive of alternative courses of action, even (perhaps especially) when faced with overwhelming problems.

Moral purpose is one antidote to the march of folly, but it is martyrdom without the inbuilt capacity — the habits and skills required — to engage in continuous corrective analysis and action. Productive educational change at its core, is not the capacity to implement the latest policy, but rather the ability to survive the vicissitudes of planned and unplanned change while growing and developing.

Educators cannot do the task alone. Already too much is expected of them. Teachers' jobs are more complex than ever before. They must respond to the needs of a diverse and changing student population, a rapidly changing technology in the workplace, and demands for excellence from all segments of society. The global marketplace raises the stakes ever higher in its performance demands of schools. Deteriorating social conditions continue to widen the awful gap between the haves and have nots. As Goodlad (1992a) says, 'healthy nations have healthy schools' not the other way around. Many things are required for a nation to be healthy, observes Goodlad:

> Education in parenting, an array of agencies and institutions including schools joined in an educative ecology, a business/corporate ethos of making the highest quality goods available at the lowest possible cost, a substantial investment in research and development, leaders and executive officers who rise to the top through first-rate performance in all aspects of the enterprise, and more. (pp. 7–8; see also, Goodlad, 1992b)

We are talking about the larger social agenda of creating learning societies. The focus of change must be on all agencies and their interrelationships, but education has a special obligation to help lead the way in partnership with others.

Overview of the Book

In chapter 2 I take up the rather strange partnership of moral purpose and change agentry. On closer inspection they are natural companions in the post-modern age. Moral purpose without change agentry is so much wishful valuing; change agentry without moral purpose is change for the sake of change. It is not farfetched to conceive of teachers as change agents. They are already part way there. Teachers as change agents is the *sine qua non* of getting anywhere.

Chapter 3 delves into the complexity of the change process, identifying insights not previously possible with the old mindset of policy and program implementation. Lessons for understanding change in new ways will be identified in order to provide more generative concepts for contending with the forces of change. We will see how seemingly incompatible pairs like continuity and change, personal mastery and collective action, vision and openness, failure and success, and pressure and support, not only can but also must go together in successful change processes.

Chapters 4 and 5 focus respectively on the school as a learning organization, and on the two-way relationship between a learning organization and its environment. I do not assume that the school of the future will look like the school of today (or even be called a school). But using recent research and the generative concept of the learning organization, we can begin to see how the education organization of the future would function. How individualism and collaboration must co-exist. How vision and strategic planning have serious blind spots. How educators must work in new ways. In chapter 5 the relationship to the environment is explored again with new and I think fruitful

Chapter 2

Moral Purpose and Change Agentry

Managing moral purpose and change agentry is at the heart of productive educational change. It is necessary to take a closer look at each of them, and to make explicit their organic relationship.

Moral Purpose

In their major study of teacher education, Goodlad and his colleagues found themselves being pushed deeper to the moral purposes of education in order to understand the basic rationale for teaching in post-modern society: 'We came to see with increasing clarity the degree to which teaching in schools, public or private, carries with it *moral imperatives* — more in public schools, however, because they are not schools of choice in a system requiring compulsory schooling' (Goodlad, 1990a, p. 47, my emphasis; see also Goodlad, Soder and Sirotnik, 1990). Goodlad singles out four moral imperatives:

Facilitating Critical Enculturation

> The school is the only institution in our nation specifically charged with enculturating the young into a political democracy . . . Schools are major players in developing educated persons who acquire an understanding of truth, beauty, and justice against which to judge their own and society's virtues and imperfections . . . This is a moral responsibility. (pp. 48–9)

Providing Access to Knowledge

> The school is the only institution in our society specifically charged with providing to the young a disciplined encounter

with all the subject matters of the human conversation: the world as a physical and biological system; evaluative and belief systems; communication systems; the social, political, and economic systems that make up the global village; and the human species itself . . . (Teachers) must be diligent in ensuring that no attitudes, beliefs, or practices bar students from access to the necessary knowledge. (p. 49)

Building an Effective Teacher-Student Connection

The moral responsibility of educators takes on its most obvious significance where the lives of teachers and their students intersect . . . The epistemology of teaching must encompass a pedagogy that goes far beyond the *mechanics* of teaching. It must combine generalizable principles of teaching, subject-specific instruction, sensitivity to the pervasive human qualities and potentials always involved. (pp. 49–50)

Practicing Good Stewardship

If schools are to become the responsive, renewing institutions that they must, the teachers in them must be purposefully engaged in the renewal process. (Goodlad, 1990b, p. 25)

One of Goodlad's colleagues, Sirotnik (1990, p. 298 ff) adds his list of moral requirements: commitment to *inquiry, knowledge, competence, caring, freedom, well-being, and social justice.* In his own words:

The implications of moral commitments to inquiry, knowledge, competence, caring, and social justice go farther than curriculum and classroom experiences. They go to the very heart of the moral ecology of the organization itself. This can be readily seen in the extent to which these commitments are reflected in the work environment of educators outside of classroom teaching *per se.* To what extent does the organizational culture encourage and support educators as inquirers into what they do and how they might do it better? To what extent do educators consume, critique, and produce knowledge? To what extent do they engage competently in discourse and action to improve the conditions, activities and outcomes, of schooling? To what extent do educators care about themselves and each other in the same way they care (or ought to care) about students? To what extent are educators empowered to participate authentically in

> pedagogical matters of fundamental importance — what schools are for and how teaching and learning can be aligned with this vision. (p. 312)

At a policy level, growing concerns about educational equity and economic performance mirror the more particular issues just described. The restructuring movement, in intent at least, places a renewed focus on the education of *all* students, 'especially those who have been ineffectively served in the past' and attempts to reorganize schools for that purpose (Murphy, 1991, p. 60). Poverty, especially among children and women, racism, drug abuse, and horrendous social and personal problems all make the equity and excellence agenda more serious and poignant day by day (Hodgkinson, 1991).

My main point, however, is not to consider these matters at the institutional level — at least not at this time. The building block is the moral purpose of the *individual* teacher. Scratch a good teacher and you will find a moral purpose. At the Faculty of Education, University of Toronto, we recently examined why student teachers wanted to enter the profession. We have a post-baccalaureate fifth year program which results in certification after one year. It represents a particularly select group because there is a great demand to enter teaching in Ontario. For 1992/93 there were some 7000 applicants for 1100 positions. We use as admission criteria a combination of two factors weighted equally — academic grades, and an applicant 'profile' designed to capture experience and reasons for entering teaching. Because of the emphasis on experience, the average age is 29. In a small study we drew a random sample of 20 per cent of those in the 1991/92 year (Stiegelbauer, 1992). We set out to derive from the written profiles, what student teachers said about 'why they want to become teachers'. The most frequently mentioned theme was 'I want to make a difference' reflected in the following sample of quotes:

> I hope my contribution to teaching, along with other good teachers' contributions, will help result in a better society for our future. I care about children and the way that children are learning.

> Education is an important factor which determines the quality of an individual life and the future of society as a whole.

> No other profession enables one the opportunity to provide such a positive impact on a child's overall development.

> I want to effect positive change in students' lives.
>
> I've always thought that if I could go into a classroom and make a difference in one kid's life . . . then that's what I am here for.

I am not suggesting that the mere statement of purpose is a straightforward matter. We cannot automatically take these statements at face value (although our day-to-day experience with student teachers provides ample corroboration of this theme), and there are different motivations for entering teaching among any cohort: But I am saying that we have a kernel of truth here. Many, many teachers enter the profession because they want to make a contribution — they want to make a difference!

What happens here-on-in — in teacher preparation, induction, and throughout the career — is a different story. Those with a non-existent or limited sense of moral purpose are never called upon to demonstrate their commitment. Those with moral potential, however inchoate, are never developed. Those with a clearer sense of purpose are thwarted.

Hargreaves and Tucker (1991) address the latter issues in their treatment of teaching and guilt. They quote Davies (1989, p. 49) 'at the centre of the feeling of guilt is self disappointment, a sense of having done badly, fallen short, of having betrayed a personal ideal, standard or commitment'. Hargreaves and Tucker (1991) also suggest that aspects of moral purpose like caring may be too narrowly conceived. They argue that there is more to it than personal caring and interpersonal sharing: 'Care . . . carries with it social and moral responsibilities as well as interpersonal ones' (p. 12).

The argument is somewhat subtle, so let me make it more directly. If concerns for making a difference remain at the one-to-one and classroom level, it cannot be done. An additional component is required. Making a difference, must be explicitly recast in broader social and moral terms. It must be seen that one cannot make a difference at the interpersonal level unless the problem and solution are enlarged to encompass the conditions that surround teaching (such as the collaborative school, chapter 4), and the skills and actions that would be needed to make a difference. Without this additional and broader dimension the best of teachers will end up as moral martyrs. In brief, care must be linked to a broader social, public purpose, and the latter if it is to go anywhere must be propelled by the skills of change agentry.

We now come to the integrative theme of the chapter: *teachers are agents of educational change and societal improvement.* This is not as

highfalutin as it sounds. I have already argued that they are part way there on a small scale with their aspirations for making a difference. And they are there ecologically with expectations of reform constantly swirling around them. In addition to making moral purpose more explicit (thereby clearly declaring what business we are in) educators also need the tools to engage in change productively. Care and competence, equity and excellence, social and economic development are natural allies in this quest.

Change Agentry

I will have more to say about change agentry later. Here I want to outline some of its elements at the individual level. How to produce more of it, and under what conditions it can be further developed and sustained are the subjects of the remaining chapters.

I define change agentry as being self-conscious about the nature of change and the change process. Those skilled in change are appreciative of its semi-unpredictable and volatile character, and they are explicitly concerned with the pursuit of ideas and competencies for coping with and influencing more and more aspects of the process toward some desired set of ends. They are open, moreover, to discovering new ends as the journey unfolds. In chapter 3, the complexities of the change process and some of the insights and lessons arising from the new mindset will be explored in detail. At this stage the question is, what conceptions and skills should the teacher of moral purpose possess in order to become a more effective change agent.

I see four core capacities required as a generative foundation for building greater change capacity: personal vision-building, inquiry, mastery, and collaboration. Each of these has its institutional counterpart: shared vision-building, organizational structures, norms and practices of inquiry; focus on organizational development and know-how, and collaborative work cultures (chapter 4). For reasons that should be increasingly clear throughout this book we need a dual approach working simultaneously on individual and institutional development. One cannot wait for the other. And if they are not working in concert, in particular settings, it is necessary to work on them separately looking for opportunities to make them connect.

The individual educator is a critical starting point because the leverage for change can be greater through the efforts of individuals, and each educator has some control (more than is exercised) over what he or she does, because it is one's own motives and skills that are at

question. Moreover, working individually on the four capacities about to be described makes it inevitable that there will be plenty of intersection of effort. I am not talking about leaders as change agents (more of that later) but of a more basic message: *each and every educator must strive to be an effective change agent.*

I start with personal vision-building because it connects so well with moral purpose contending with the forces of change. Shared vision is important in the long run, but for it to be effective you have to have something to share. It is not a good idea to borrow someone else's vision. Working on vision means examining and reexamining, and making explicit to ourselves why we came into teaching. Asking 'What difference am I trying to make personally'? Is a good place to start. For most of us it will not be trying to create something out of nothing. The reasons are there, but possibly buried under other demands or through years of disuse, or for the beginning teacher still underdeveloped. It is time to make them front and centre. We should not think of vision as something only for leaders. It is not a farfetched concept. It arises by pushing ourselves to articulate what is important to us as educators. Block (1987) emphasizes that 'creating a vision forces us to take a stand for a preferred future' (p. 102); it signifies our disappointment with what exists now. To articulate our vision of the future 'is to come out of the closet with our doubts about the organization and the way it operates' (p. 105). Indeed, it forces us to come out of the closet with doubts about ourselves and what we are doing.

Says Block writing more generally about organizations: 'We all have strong values about doing work that has meaning, being of real service to our customers, treating other people well, and maintaining some integrity in the way we work' (p. 123). Teachers, as I have indicated, are in one of the most 'natural' occupations for working on purpose and vision, because underneath that is what teaching is all about.

Several points in conclusion. First, I cannot stress enough that personal purpose and vision are the starting agenda. It comes from within, it gives meaning to work, and it exists independent of the particular organization or group we happen to be in.

Second, personal vision in teaching is too often implicit and dormant. It is often expressed negatively (what people want to get rid of, or not see happen) or narrowly in terms of means (more time, smaller classes). We need also to have positive images as driving forces. Teachers do not have to wallow in hubris in realizing that they are in a strategic position. Teachers should be pursuing moral purpose with greater and greater skill, conceptualizing their roles on a higher plane than they currently do.

Third, once it gets going, personal purpose is not as private as it sounds. Especially in moral occupations like teaching, the more one takes the risk to express personal purpose, the more kindred spirits one will find. A great deal of overlap will be experienced. Good ideas converge under conditions of communication, and collaboration. Individuals will find that they can convert their own desires into social agendas with others. Remember, personal purpose is not just self-centered, it has social dimensions as well such as working effectively with others, developing better citizens, and the like.

Fourth, personal purpose in teaching should be pushed and pushed until it makes a connection to social betterment in society. This is what it is at the one-to-one teacher-student level anyway. It has greater scope and meaning, and calls for wider action if we realize that *societal improvement* is really what education is about.

Fifth, and an extension of the previous point, is the realization that personal purpose in teaching is a *change theme*. Gardner (1964, p. 72) quotes Petrarch

> By citizens, of course, I mean those who love the existing order; for those who daily desire change are rebels and traitors, and against such a stern justice may take its course.

Today, the teacher who works for or allows the *status quo* is the traitor. Purposeful change is the new norm in teaching. It has been bouncing around within teaching for the past thirty years. It is time we realized that teachers above all are moral change agents in society — a role that must be pursued explicitly and aggressively.

Finally, and paradoxically, personal purpose is the route to *organizational* change. When personal purpose is diminished we see in its place groupthink and a continual stream of fragmented surface, ephemeral innovations. We see in a phrase, the uncritical acceptance of innovation, the more things change, the more they remain the same. When personal purpose is present in numbers it provides the power for deeper change:

> Cultures get changed in a thousand small ways, not by dramatic announcements from the boardroom. If we wait until top management gives leadership to the change we want to see, we miss the point. For us to have any hope that our own preferred future will come to pass, we provide the leadership. (Block, 1987, pp. 97–8).

All four capacities of change agentry are intimately interrelated and mutually reinforcing. The second one — inquiry — is to say that the formation and enactment of personal purpose is not a static matter. It is a perennial quest. One of the new paradigm writers, Richard Pascale (1990) captures this precisely: '*The* essential activity for keeping our paradigm current is persistent questioning. I will use the term *inquiry*. Inquiry is the engine of vitality and self-renewal' (p. 14). Stacey (1992) puts it this way: 'A successful, innovative organization must have groups of people who can perform complex learning spontaneously. Because in open-ended situations no one can know what the group is trying to learn, the learning process must start without a clear statement of what is to be learned or how' (p. 112).

Inquiry is necessary at the outset for forming personal purpose. While the latter comes from within, it must be fueled by information, ideas, dilemmas and other contentions in our environment. The beginner, by definition, is not experienced enough with the variety and needs of students, and with the operational goals and dilemmas of improvement to have clear ideas of purpose. Habits of 'questioning, experimentation, and variety' are essential (*ibid*). Reflective practice, personal journals, action research, working in innovative mentoring and peer settings are some of the strategies currently available (see Fullan and Hargreaves, 1991). Inquiry means internalizing norms, habits and techniques for *continuous learning*.

Learning is critical for the beginning teacher because of its formative timing. But we are talking about more than this — lifelong inquiry is the generative characteristic needed because post-modern environments themselves are constantly changing. We are probably never exactly right in the first place, but in any case we need the checks and balances of inquiry because in changing times our initial mental maps 'cease to fit the territory' (Pascale, 1990, p. 13). Thus, we need mechanisms to question and update our mental maps on a continuous basis. For Pascale, the question is the answer: 'Our quest isn't just a New Management Paradigm of the Nineties but a way of thinking that is continually open to the next paradigm and the next and the next . . .' (p. 265). What could be closer to change agentry?

The relationship between the first two capacities — personal vision and inquiry — involves the ability to simultaneously *express and extend* what you value. The genesis of change arises from this dynamic tension.

The capacity of mastery is another crucial ingredient. People must behave their way into new ideas and skills, not just think their way into them. Mastery and competence are obviously necessary for

effectiveness, but they are also *means* (not just outcomes) for achieving deeper understanding. New mindsets arise from new mastery as much as the other way around. Mastery then is very much interrelated with vision and inquiry as is evident in this passage from Senge (1990):

> Personal mastery goes beyond competence and skills, though it is grounded in competence and skills . . . It means approaching one's life as a creative work, living life from a creative as opposed to a reactive viewpoint . . .
>
> When personal mastery becomes a discipline — an activity we integrate into our lives — it embodies two underlying movements. The first is continually clarifying what is important to us (purpose and vision). We often spend too much time coping with problems along our path that we forget why we are on that path in the first place. The result is that we only have a dim, or even inaccurate, view of what's really important to us.
>
> The second is continually learning how to see current reality more clearly . . . The juxtaposition of vision (what we want) and a clear picture of current reality (where we are relative to what we want) generates what we call 'creative tension'. 'Learning' in this context does not mean acquiring more information, but expanding the ability to produce results we truly want in life. It is lifelong generative learning. (p. 142)

It has long been known that skill and know-how are central to successful change, so it is surprising how little attention we pay to it beyond one-shot workshops and disconnected training. Mastery involves strong initial teacher education, and continuous staff development throughout the career, but it is more than this when we place it in the perspective of comprehensive change agentry. It is a learning habit that permeates everything we do. It is not enough to be exposed to new ideas. We have to know where new ideas fit, and we have to become skilled in them, not just like them.

Block (1987) says that the goal is:

> (to learn) as much as you can about the activity you are engaged in. There's pride and satisfaction in understanding your function better than anyone else and better than you thought possible. (p. 86)

We also know that inquiry, learning, and mastery are intrinsically anxiety producing: 'Almost every important learning experience we

have ever had has been stressful. Those issues that create stress for us give us clues about the uncooked seeds within us that need attention' (*ibid*, p. 191). This means that the capacity to suspend belief, take risks, and experience the unknown are essential to learning. We can be more selective in what we try (as distinct from accepting all change) but in exploring selected new ideas we must be patient enough to learn more about them and to look for longer term consequences before drawing conclusions.

Rosenholtz (1989) found that teachers in schools characterized by these 'learning enriched' habits, not only learned more and became better at what they did, but they became more confident. The more accustomed one becomes at dealing with the unknown, the more one understands that creative breakthroughs are always preceded by periods of cloudy thinking, confusion, exploration, trial and stress; followed by periods of excitement, and growing confidence as one pursues purposeful change, or copes with unwanted change.

Back to Senge (1990):

> People with a high level of personal mastery live in a continual learning mode . . . personal mastery is not something you possess. It is a process. It is a lifelong discipline. People with a high level of personal mastery are acutely aware of their ignorance, their incompetence, their growth areas. And they are deeply self-confident. Paradoxical? Only for those who do not see that 'the journey is the reward'. (p. 142)

In order to be effective at change, mastery is essential, both in relation to specific innovations and as a personal habit. New competencies and know-how are requirements for better understanding and judging the new and are the route to greater effectiveness.

Collaboration is the fourth capacity. Aside from the power of collaboration which we take up in later chapters collaboration is essential for personal learning (Fullan and Hargreaves, 1991). There is a ceiling effect to how much we can learn if we keep to ourselves. The ability to collaborate — on both a small and large scale — is becoming one of the core requisites of postmodern society. Personal strength, as long as it is open minded (i.e., inquiry oriented) goes hand-in-hand with effective collaboration — in fact, without personal strength collaboration will be more form than content. Personal mastery and group mastery feed on each other in learning organizations. People need one another to learn and to accomplish things.

Small-scale collaboration involves the attitude and capacity to form

productive mentoring and peer relationships, team building and the like. On a larger scale, it consists of the ability to work in organizations that form cross-institutional partnerships such as school district, university and school-community and business agency alliances, as well as global relationships with individuals and organizations from other cultures.

In short, without collaborative skills and relationships it is not possible to learn and to continue to learn as much as you need in order to be an agent for societal improvement.

In summary, skills in change agentry are needed, because the processes of improvement are dynamically complex, and as we shall see, these processes are to a certain extent unknowable in advance. Chaos in a scientific sense is not disorder, but a process in which contradictions and complexities play themselves out coalescing into clusters (see Gleick, 1987, Stacey, 1992, Wheatley, 1992). Scientists talk about 'strange attractors' as forces that pull chaotic states into periodic patterns. Moral purpose is one of change processes' strange attractors because the pursuit and pull of meaning can help organize complex phenomena as they unfold. Strange attractors do not guide the process (because it is not guidable), they capitalize on it. Without moral purpose, aimlessness and fragmentation prevail. Without change agentry, moral purpose stagnates. The two are dynamically interrelated, not only because they need each other, but because they quite literally *define* (and redefine) each other as they interact.

I have argued that moral purpose and change agentry, far from being strange bedfellows, should be married. They keep each other honest. They feed on, and fulfill one another. Moreover, together they are generative in that they have an in-built capacity to self-correct and to continually refigure what should be done. Not only are they effective at getting things done, but they are good at getting the *right* things done.

I have also claimed that moral purpose and change agentry separately, but especially in combination, are as yet society's great untapped resources for improvement. We need to make them explicit, and make them part and parcel of personal and collective agendas. We need to go public with a new rationale for why teaching and teacher development is so fundamental to the future of society. We need to begin to practice on a wide scale what is implicit in the moral purpose of teaching. To do so we need the capacities of change agentry. And we need to know a lot more about the complexities of the change process.

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