



Wise Up



Learning to live the Learning Life



Up

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EDUCATION

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Introduction: Learning for Life

Ravi and Ben are twenty-one months old, born in the same week. They are in an unfamiliar room at the university, taking part, with their mothers, in an experiment on learning. Though the boys have not met before, Ravi is keen to make contact, approaching Ben, smiling at him and holding out a toy he has been playing with. Ben, however, shrinks away nervously and clings to his mother's leg. Ravi looks at his mother occasionally to make sure all is well, and continues to explore the room. A man dressed as a clown enters and talks to the children. Ben starts to whimper and hides his face in his mother's skirt. Ravi smiles at the clown and is soon chatting. When he reaches for a toy, the clown says something sternly. Ravi stops, looks first towards his mother, then intently at the clown. He reaches for the toy again, keeping an eye on the clown. Ben has burst into tears and is being comforted on his mother's lap. These responses are typical of the children.¹

People in general, just like Ravi and Ben, differ enormously in how, and how well, they learn. And these differences in style and effectiveness start to develop early. Already Ravi is generally able to handle more strangeness than Ben. He is a more *resilient* learner: more willing to have a go. He is more able to detect, and more willing to trust, his mother's assessment of the situation. From her positive expression he borrows the courage to explore. The ability to 'read' learning situations correctly, to know when to explore and when to withdraw, and the willingness to tolerate the feelings that go along with learning, lay the foundations of this essential resilience.

But these early differences are not set in stone. Depending on what happens to them over the rest of their lives, Ben and Ravi will either consolidate their initial robust, or fragile, response to the feeling of learning, or they will change. In an uncertain world, resilience is a vital quality which needs to be fostered in children and adults alike. We now know what resilience is, what undermines it and how it can be developed: how to help Ben become better at hanging in with

uncertainty. This book is about what it means to be a good learner, and how the growth of good learning can be fostered. The development of resilience in the face of uncertainty and difficulty is one of its major themes.

Emmi and Eliza are fourteen, both thought of as 'bright', both in the top group in their school for mathematics. They are working their way through a booklet of problems that includes, by mistake, a few questions that are too difficult for them to solve. On the early, manageable problems the girls work equally effectively and successfully, but on the hard ones Eliza quickly goes to pieces. She looks furtively across at Emmi to see how she is coping, and begins to fidget and look upset. She whispers to her friend: 'These sums are stupid!' Emmi, meanwhile, is giving it her best shot. She tries starting the problem from the end and working back. She says to herself: 'Well, suppose x is 1: what happens then?' She tries various guesses before she eventually calls the teacher over and confesses that she is stuck. The teacher quickly realizes the mistake and tells the class to ignore problems 7 to 10 and skip to number 11. Emmi does so, working with determination, trying out some of the strategies which she has discovered in the course of grappling with the hard problems, to see if they work on the easier ones. Eliza, however, is still upset. She looks at problem 11 and cannot think how to tackle it, even though number 6, which she solved successfully only a few minutes previously, was exactly the same type.²

Resilience is not just a concern of little kids, or of those who find learning generally hard. Both Emmi and Eliza are 'good students', but Eliza's confidence in her ability to solve her mathematical problems is brittle. Like Ben she has a low tolerance for frustration, and quickly gets upset when things are not going her way. Instead of focusing on trying to solve the problem, her priority becomes saving face. Emmi experiences her difficulty as a challenge; Eliza perceives her failure as a threat. Where Ben felt frightened, Eliza has learnt to feel ashamed of her difficulty. Another of the themes of this book is the relationship between learning and defending. How do we know when it is right to hang on in there, and when it is smart to quit? What happened to Eliza to make her see the world the way she does? And can we help her distinguish between challenges and threats more accurately?

When Emmi encounters difficulty, she is not only more resilient but a more *resourceful* learner than Eliza, ingeniously searching for new ways to beat the problem. She has several strings to her bow, and if her first approach is not successful she is not stumped. When she doesn't know exactly what to do, she has things she can try. She has more than one tool in her learning toolkit: a greater range and variety of learning and problem-solving strategies. Her resilience and her resourcefulness positively reinforce each other. Because she has greater learning capacity, she feels more confident. Because she feels more

confident, she tries longer, harder and with more ingenuity than does Eliza – and is therefore more likely to discover a new way to crack the problem, a new learning tool. As she learns, so she is becoming a more powerful learner. Her ‘learning to learn’ is on an upward spiral, whereas Eliza’s is becalmed. Another theme of this book is: how can we describe this learning toolkit; what are its main compartments? And how can we help people engage with learning challenges in such a way that their general *learning power* is progressively expanded?

Patrick and Polly are the managers of different departments at a large town hall. They are in a meeting to discuss the apportionment of next year’s budget. Patrick tentatively questions the prevailing wisdom that each department which has spent its full quota in the current year gets the same again plus a small percentage increase; while departments that have underspent have their budget reduced. The logic, naturally, is that those who don’t spend it don’t need it. But Patrick points out that this often leads to departments rushing to use up their budgets before the end of the financial year, wasting money for fear of losing it next year. The meeting circles round the issue without getting anywhere. Polly gets impatient and moves that they carry on as usual. Patrick suggests they take a ten-minute break to clear their minds, and then give it another five minutes. During the break, he muses over different ways of encouraging people to save. When they reconvene, he suggests that they try a different scheme whereby next year’s departmental budgets are computed as 95 per cent of the current year, plus 50 per cent of any savings achieved. To maintain their current budget, a department would effectively have to save 10 per cent. If they save 20 per cent their budget increases by 5 per cent; and so on. This way frugality is rewarded, and both individual departments and the central treasury are happy. The meeting thanks Patrick for his innovative suggestion and agrees to try it the following year. Polly is quietly envious of Patrick’s ability to reflect creatively.³

It may be that Patrick has learnt better than Polly how to use this softer, more ruminative approach to learning. She may not have realized yet that creative inspiration often strikes when the mind is in a state of playful relaxation, or, if she has, is not able to induce that state at will. Or it may equally be that she possesses the tool, but it did not come to mind. The difference between Patrick and Polly could be that he has developed a more *reflective* attitude towards his own learning. He is better able to stop and take stock of the situation, to ask himself: ‘Now what kind of learning approach would work best here?’ He has the same tools as Polly, but is able to manage them better. Another theme of this book is the development of this reflective ability to monitor one’s own learning and take a strategic overview. What does that kind of self-awareness involve, and how does it grow?

At home, work and play, learning continues throughout life. For Polly and Patrick, 'what to do about the budget?' is not so very different, in essence, from Ben and Ravi's 'what to do about the clown?', or Eliza and Emmi's 'what to do about these (impossible) sums?' At root, the experience of staying engaged with something that is not yet understood or mastered demands a similar attitude. Clearly, however, the problems are of different kinds, and they succumb to different kinds of learning. For Ravi, the key lies in being willing to try things out – to make small, judicious, practical experiments – and see what happens. He learns by cautiously immersing himself in the experience. For Emmi, the learning required is of a more deliberate, analytical kind. She is thinking hard. While for Patrick, it is a much more ruminative state of mind that does the trick. Not all learning, by any means, requires conscious deliberation. Learning is not a homogeneous activity: it comes in many different shapes and sizes. And these start to kick in at different stages of development. Another theme of this book is the idea that learning is a much wider, richer concept than is captured within current models of education and training. And learning to learn is likewise a much more interesting and pervasive possibility than a concern with study skills.

Debbie and Kelvin, a young married couple, both have difficulty reading. They have mastered a variety of tricks for concealing the fact: Debbie often claims to have left her spectacles at home; Kelvin challenges their bright eight-year-old daughter Helen to read things out loud that he thinks might be important. One day Debbie comes home and tells Kel that she and a friend have signed up for an adult literacy course at the local college. Kel's immediate reaction is to worry about the stigma when their friends find out. Debbie says: 'If Helen can do it, so can I. I'm not going to spend the rest of my life pretending to be blind.'

As we saw with Eliza, the art of good learning involves making sure the brakes are off, just as much as it does learning ways of accelerating learning. How people behave as learners is as much to do with what they believe as it is with the skills they have mastered. Kelvin is perfectly able to learn how to read. He has all the necessary equipment. But his learning is blocked by a lack of self-belief. To him the risks of failure loom large, and the risks of humiliation even larger. He fears he will not be able to do it. He assumes that the fact that he did not learn to read at the 'right' time reflects badly on his character, his intelligence or his self-worth. Debbie has jumped the shame barrier and is willing to risk being a learner. Kelvin stays stuck behind it. Another theme of the book is the extent to which it is people's often unconscious beliefs about themselves, and even about the nature of learning itself, that limit their learning power; not any intrinsic differences in ability or intelligence. The focus in Europe and the USA on intelligence as a – perhaps the – major determinant of

ONE

Beliefs about Learning

The development of learning power starts not with the cultivation of its skills and qualities, but with the preparation of the ground. For the possibilities that people see for learning, and the ways in which they relate to themselves as learners, depend on what they already believe learning to be. In the Introduction, I mapped out some of the insights that have emerged from the new science of learning. Some of these may have seemed little more than common sense. But others pose a significant challenge to the ways in which our society has come to think about learning. If parents, teachers, managers and politicians have at the back of their minds a set of assumptions about learning which are out of date, then we have to start by identifying what they are. New understandings are unlikely to take root and bear fruit if the mental ground is already choked with misconceptions. In this chapter I shall first illustrate how different communities can hold quite different views about learning, and then expose some of the misapprehensions that are dissolved in what we take to be 'common sense'.

Cultural differences in learning

People who live in different environments and societies develop different aspects of their learning power. This may be for any of a number of reasons. First, their world may regularly present them with different kinds of tasks, so that different 'learning muscles' are continually being exercised. Just as a swimmer and a gymnast develop quite different physiques and skills, so do a poet and an engineer develop different compartments of their learning toolkit. Joining a group of meditators develops learning that is quiet and inward. Becoming a

mechanic develops the ability to combine intuition and logical thinking in a way that generates, and then systematically eliminates, possible reasons for an engine fault.

But the way people develop and express themselves as learners is also influenced by the often unconscious beliefs and values that their culture holds. Some of the cultural assumptions that influence the way learning power develops reflect broad social values. Asian children's relative success on traditional school curricula, for example, is the outcome of a whole set of beliefs in the value of education, prosperity and family pride, and their interconnections. A child's performance at school brings credit or shame to the whole family, who therefore invest considerable time and effort in ensuring the child's success. The extraordinary level of achievement of Indochinese refugees in American schools, despite arriving with no English language, is testament to the power of these family attitudes.¹

Some of these beliefs, though, are more specific to the process of learning itself. Asian students traditionally not only have a different attitude to schooling from that held by some other cultural groups; they have also come to value, and be good at, different kinds of learning. There is a widespread assumption that creativity and innovation can only grow properly out of a strong mastery of convention and technique. Children are therefore encouraged to learn in a way that involves much dutiful effort to remember verbatim what they have been told and to emulate models of good practice, whether in art, language or physical skill. They develop the tools of memory and emulation, but only much later, if at all, do they begin to balance these with a more critical or creative perspective. Although things are changing now, as cultures meet and blend, it is only a few years since Professor John Biggs of Hong Kong University was able to cite evidence that 'Asian students typically take a low profile [in class], rarely asking questions or volunteering answers, let alone making public observations or criticism of course content... [Specifically] Hong Kong students display almost unquestioning acceptance of the knowledge of the teacher ... rather than an expression of opinion, independence [or] self-mastery.'²

In a progressive US elementary school or a New Zealand kindergarten, on the other hand, the priorities may well be inverted. Creativity and independent initiative may be valued and praised highly by teachers, while a child's need to be told explicitly what to do, or their desire to copy rather than create, may be seen as undesirable traits to be changed. Indeed, within such a progressive belief system the very idea of rote learning is often treated as if it were an insult to the human spirit, and so the skills of literal memory or accurate imitation may not be developed at all. From within each culture, the attitudes and practices of the other look strange, risky or deviant.