

Mindsets

In my research, I have been amazed over and over again, at how quickly students of all ages pick up on messages about themselves – at how sensitive they are to suggestions about their personal qualities or about the meaning of their actions and experiences. The kinds of praise (and criticism) students receive from their teachers and parents tell them how to think about what they do – and what they are.

Carol Dweck

Carol Dweck is a professor of psychology at Stanford University and has been conducting research on motivation and personality for over twenty years. Her work has enormous practical implications for teachers and parents as well as those working in sports or business settings. Dweck's ideas often go under the name of 'self-theories' and the World Education Fellowship named her book of that name 'book of the year' in 2000. Despite this acclaim, Dweck's ideas have not received much attention in the UK. However, the Scottish educational psychologist Alan McLean has disseminated and built on her theories in his book *The Motivated School*.

One reason why Dweck's work has not received the attention it deserves is that her scholarly style and heavy use of empirical research makes it unattractive for the lay reader. Fortunately, this has now changed for in 2006 she published a book called *Mindset: The New Psychology of Success*. In this volume, she popularises her ideas and tries to engage non-psychologists. She does this mainly by using terminology that is more meaningful to the lay reader. It is this version of Dweck's work which we mainly use here.

Two mindsets

Based on her empirical research, primarily with young children, Dweck argues that people throughout the world can be divided into two basic 'mindsets'.

The fixed mindset

The first she calls 'the fixed mindset'. This mindset upholds the idea that people's ability is fairly fixed and not open to change. According to such a view, people are either intelligent, sporty, arty, good at maths, etc, or they are not. This mindset also labels people according to personal characteristics. So people are either good or bad, caring or selfish and so on. In Dweck's original work, she referred to this as an 'entity theory' in that it treats human capabilities and characteristics as if they were 'carved in stone' and individuals as if they are 'finished products'. In other words, it views human abilities and behaviours as innate, unchangeable things, like inanimate objects such as tables and chairs.

The growth mindset

The growth mindset has a different starting point. It sees people as essentially malleable. In other words, they are not fixed but have huge potential for growth and development. This mindset accepts that a small minority of people are born with unusual levels of talent or ability (the geniuses). At the other end of the spectrum are people who have such severe learning difficulties that they have some barriers to learning though they still have huge potential to develop skills. So this view asserts that around 95 per cent of the population fall between these two extremes and that with enough motivation, effort and concentration they can become better at almost anything. In her original work, Dweck calls this the 'incremental theory' to suggest the idea that people are capable of making incremental changes in ability and other personal characteristics.

It is important to note that Dweck is not disputing the fact that some people find some types of activities or learning easier than others. What she disputes is that others cannot learn:

Just because some people can do something with little or no training, doesn't mean that others can't do it (and sometimes do it better), with training. This is so important, because many, many people with the fixed mindset think that someone's early performance tells you all you need to know about their talent and their future.

This very simple theory of different views of people has enormous implications for learning and for how teachers and parents interact with young people.

How the mindsets interact with success and failure

For people who have a fixed mindset, success is exceptionally important as it is a way to validate yourself and show how clever and talented you are. It is also a way to prove you are better than others who lack these fixed qualities. Conversely, failure is toxic for those with fixed mindsets, 'the loss of oneself to failure can be a permanent and haunting trauma'. By extension, it also means that fixed mindset people feel they must be careful with anything that might be challenging and risky as it may increase the risk of failure and thus show their lack of ability. It is best according to this view, to harbour thoughts about 'what you could have been' rather than risk failure.

This viewpoint also leads people to be very touchy about any critical feedback as it suggests an innate lack of ability. It also leads to tests being seen as a valuation, not of a specific set of skills, but of how clever or capable you are.

From an educational point of view, what is particularly worrying about the fixed mindset is how it sees effort as reprehensible in some way. According to this perspective, people who are naturally clever and gifted do not have to practise and try too hard. So people who need to put effort into something are showing their deficiencies.

People with a growth mindset have a completely different view of success and failure. Of course, they are motivated by success and want to achieve it, but for them success shows that you have mastered something, been stretched and learned new skills: it is not seen as a demonstration of intelligence or talent. This then frees up growth mindset people to see failure not as a negative, undermining judgement on them as people, but as something, they need to learn from so that they can succeed in the future. A natural extension of this mindset is to relish, and seek out challenges, rather than avoid them as it is through being challenged that people grow and develop. Failure can often be a painful challenge to growth mindset people but it is still seen as something to learn from rather than something that defines you as an individual.

In the eyes of those with a growth mindset, tests are not measuring your basic intelligence or potential (no test can do that); tests can only give a snapshot of how capable you are at something now. What is more, criticism, particularly from someone you respect and you can learn from, is a gift – a way to accelerate learning – and not something to be feared. Dweck reports that the great Russian ballet dancer and teacher, Marina Semyonova, devised an unusual way of selecting students. During a trial period, she watched how they responded to critical feedback. The more responsive they were to 'correction' the more she deemed them worthy of her tutoring. In other words, she was selecting for a growth mindset.

Finally, for people with a growth mindset, learning and development is all about one thing – *effort*. The more you put in the more you will accelerate learning. What is more, growth mindset people value learning for its own sake, irrespective of the outcome.

These differences between people have been demonstrated by Dweck's research. She describes, for example, how students with the two different mindsets responded to the offer of feedback after completing a challenging task. The fixed mindset students were more likely to refuse the offer of information on how they could improve their performance and chose instead information on how they compared with their peers. The growth mindset students were much more interested in knowing how they could have done better than in finding out how they ranked.

More research findings

Throughout *Mindset*, Dweck quotes findings from extensive research projects on children (usually about the age of ten) which she has carried out with colleagues. One set of research studies asked the children to carry out puzzles. They were then divided into three groups. The first group were given fixed mindset feedback. In other words, they were told that they had done well because they were very clever children. The second group were given growth mindset feedback. So these children were also praised but this time not for anything innate about their abilities – they were only praised for their effort and concentration. The third group, a control group, were only given bland feedback on having done a good job.

Dweck and colleagues found that when these children were then asked if they wanted to undertake harder, more challenging puzzles, virtually all the children in the fixed mindset group refused while all the children in the growth mindset group accepted the offer. The control group split almost evenly between the two options. Dweck speculates that this no doubt reflected their own tendency to growth or fixed theories of intelligence.

Some of her other research projects also show that children given fixed mindset feedback are less keen to keep trying to improve their learning or their abilities and, if asked to repeat the original task, will often not do it as well. In other words, their performance can often erode rather than improve as a result of being told they are talented or clever. This finding has huge implications for parents, teachers and anyone working with young people.

Lying

Dweck and colleagues found a particular aspect of their research worrying. Following on from fixed mindset feedback, children were asked to tell others of how well they had done. A staggering 38 per cent lied about their score by saying it was better than it actually was. The equivalent figure for the control group was 14 per cent and the growth mindset group 13 per cent. Dweck writes 'What's so alarming is that we took ordinary children and made them into liars, simply by telling them they were smart'.

Mindset and Achievement

In *Mindset*, Dweck comes up with a number of powerful examples of people who have succeeded in life through effort, determination, good teaching and effective learning strategies. The basketball player, Michael Jordan, is a good case in point. He is often seen as a 'natural' but, according to his coach, Jordan did not show a great deal of promise initially but he persevered, trained harder than anyone else and particularly worked on his weaknesses. Dweck argues that one of the great ironies about mindsets is that fixed mindset people are often desperate for success to prove how clever and talented they are, however, since they often lack good learning strategies, and are easily stressed by failure, they often do not get to the top. In contrast, growth mindset people are often less fixated on achievement but are more likely to get there. She writes: 'The top is where the fixed mindset people hunger to be, but it's where many growth mindset people arrive as a by-product of their enthusiasm for what they do'. In short, growth mindset people are enthralled by the learning process, not the destination. If they get to the top, it is an added bonus, not the point of their engagement.

Praise

An even more important conclusion to draw from Dweck's research is that we have to be very careful about how we praise young people. Dweck quotes research in the USA which shows that 85 per cent of parents think that praise is very important for children's performance and confidence. They are supported in this belief, as we have seen, by the very influential American self-esteem movement. Dweck agrees that 'praise, the chief weapon in their armoury, is a powerful tool'. Dweck also acknowledges that children love being praised for being intelligent and talented but that the benefits are short-lived. Indeed, she argues that 'if praise is not handled properly, it can become a negative force, a kind of drug that, rather than strengthening students, makes them passive and dependent on the opinion of others'.

The problem with praise

Dweck, like Seligman, argues that praise for nothing very much is damaging to children. She argues that children know that if they are given lavish praise for very little it means that nothing very much is expected of them. In other words, unwarranted praise undermines children by communicating low expectations. However, Dweck goes further than Seligman by arguing that praising for high achievement often carries a big risk. As we have seen, her research suggests that when children are praised for how intelligent they are, they become focused on retaining this label rather than on continuing to learn. Dweck argues that praise for intelligence often leads children to become more interested in how they are seen by others than in the learning itself. So praising for intelligence, or talent, may seem a positive thing to do but can distort children's attitude to learning and make them dependent on how they are seen by others. In practice this can mean not opting for challenging tasks or trying new things if it might involve failure.

Positive Labels

Dweck argues that many professionals working with children have come to realise the danger of labelling children through criticism; for example saying 'you are a naughty boy' rather than 'that was a naughty thing to do'. But her argument is that positive labels such as 'you are very clever' also undermine children in the longer term as it gets them to focus on things (such as intelligence) that the praise is unwittingly telling them is not under their control. It also erodes their belief that effort is a good thing. Instead of praising for ability or innate talent, Dweck argues we should praise children for effort, concentration and the effectiveness of the strategies they use.

How to give praise

- Don't praise unless it is warranted.
- Praise for effort, concentration and good strategies – not for talent, ability or intelligence.
- Be specific – well-judged praise helps young people to learn what they are doing well and what they can build on.
- Don't go over the top with praise – it can lead a young person to feel anxious that they may disappoint you in the future.

The need to challenge children

Like many psychologists, or educational commentators in the US, Dweck is critical of teachers and parents for handing out easy praise to children in the name of building self-esteem, and of lowering standards to allow more children to 'achieve' at school. Dweck is also critical of the way parents and teachers protect children by not giving them accurate feedback to young people as a way to hasten their learning and teach them better strategies. This certainly accords with my own views. What is the subtle message we are giving to young people if we constantly avoid criticising what they have done? I believe that the sub-text, which young people easily pick up, is that criticism is so belittling, and so difficult to accept, that we are not giving voice to it. In other words, it makes criticism appear much worse than it is. It also conveys the idea that we expect them to do everything perfectly and that we have no strategies to help them improve. In fact, well-judged, constructive criticism is a gift which can accelerate learning and help young people to develop a growth mindset.

The accompanying example of the pupil in the signing competition (Box 1) shows how Dweck's theories encourage parents and teachers to challenge young people, not spare their feelings, which ultimately a short-term, counterproductive strategy.

BOX 1: Example from *Mindset*: Spare the criticism and demotivated the child?

Rachel is a fourteen-year old girl who is very keen on singing. For the past year she has attended singing classes and now feels ready to enter a singing competition. She is one of the youngest entrants. At the competition she sings very well but misses a few notes because she is nervous. At the end of the evening she leaves, hurt and despondent, without any prizes or distinction.

What should Rachel's parents or teacher say to her?

1. That they think she sung better than anyone else.
2. That the judges should have made allowances for her age.
3. That singing isn't that important.
4. That she is a talented singer and will win next time.
5. That she didn't deserve to win.

Dweck's theory would lead her to argue the following: that response one is 'insincere' as the parent/teachers and the child know she did not deserve to win. Response two is questioning the judges and the marking system and basically off-loading blame for Rachel's failure on to them. Response three encourages Rachel to devalue something she cares about so it is demotivating. Response four, Dweck argues, is the most dangerous as it makes out she doesn't have to do anything differently to win next time. For Dweck, response five, although apparently quite hard, is the only serious option. She accepts that the feedback might not be given this boldly, but basically what Rachel needs to hear is that she must practise more and get better so that she doesn't miss notes when she is nervous. But there is an encouraging message here for Rachel and it is this: the other singers did better than her, not because they were innately more talented, but because they were more skilled. If Rachel wants to win singing competitions then she has to practise, practise, practise.

Should we blame children for not trying hard enough?

Dweck is aware that her theory could lead to the conclusion that children from poor, disadvantaged backgrounds are to blame for their lack of achievement because they do not put enough effort in. But she argues that while effort is critical for success, it is much easier for those who come from advantaged backgrounds. Those who lack resources or opportunities in life are much more easily 'derailed'. For example, a pupil who has parents with multiple problems will have more distractions in their life and more reasons for poor school attendance. In her book she does not dwell on the issue, but I think the drift of her argument is such that she would still argue that it is better to use strategies which challenge children, even though they have social problems, rather than to expect little of them. The latter simply condemns them to a cycle of underachievement.

The role of confidence

So in Dweck's theory how important is confidence? Dweck argues that people with the fixed mindset have to 'nurse' and 'protect' their confidence because failure and mistakes knock them off their stride so easily. She cites the tennis champion John McEnroe as an example of someone with a fixed mindset whose confidence was easily undermined during a match. Rather than attending to what went wrong, he blamed others for the adversity. Dweck goes on to argue that

people with a growth mindset do not always need confidence to achieve. She explains that growth mindset people will often 'plunge into something wholeheartedly and stick to it'. In fact, she adds that they might become involved and put a lot of effort into something, because they are not good at it. 'This is the wonderful feature of the growth mindset', she writes. 'You don't have to think you're already great at something to want to do it and enjoy doing it'.

TTT 2: Giving encouragement

Teachers and others working with children often give praise, as they want to appear positive and motivating. However, praise that is unwarranted is counterproductive. It is better to use encouragement instead. For example:

- Show you feel positive about the young person by being interested in them and their work. For example rather than saying 'what a wonderful drawing' it is better to say 'tell me about his person' or 'why did you use this colour of blue?'
- Recognise the effort the youngster is putting in.
- Ask them questions about how they think they are doing, what help they may need, what obstacles they may face and how they can get round them.
- Use a growth mindset and tell them how they are capable of learning with enough effort, concentration and better strategies.
- Encourage them to be optimistic about being able to improve.

Suspending judgement

One of the most compelling aspects of Dweck's work is that she is essentially arguing that we need to stop judging. The fixed mindset leads to a fixation with labels and judgements – he's clever, she's good at sports, she can't count, he's a numpty and so forth. These types of judgements of children's ability are not simply made at school but also by parents at home. It leads children to feel that they are continually being measured. As children are capable of picking up subtle messages, they know that what is really at stake is their worth as human beings. This is why Dweck argues that kids with fixed mindset parents know that their concern with poor grades is not so much about their failure to learn a specific thing but the idea that this shows the child is not smart. Often these young people feel that they never quite live up to their parents' ideal. Even when they are successful, they are worried about losing this status if they fail.

It is much better for children if teachers and parents adopt a growth mindset and for Dweck this means 'Don't judge. Teach'. In some of the most powerful passages of her book, Dweck argues that good teachers do not have to love the children they teach but they have to respect them and see them as capable of improvement if they put in effort and employ better strategies. For Dweck the really great teachers are those who do not just pay 'lip service to the idea that all children can learn' but have a 'deep desire to reach in and ignite the mind of every child'. In case any teacher reading this is saying to themselves, 'that's not me. I'm not a great teacher', it is worth reiterating that the mindset theory suggests that any teacher can become much, much better if they have the motivation and desire to learn.

The internal critic

The judgement inherent in the fixed mindset can also be part of our internal dialogue. Dweck argues that people, whether they are conscious of it or not, keep a running account of what is happening in their lives and what they should do about it. Dweck says that their research reveals that people with fixed mindsets create 'an internal monologue that is focused on judging'. These judgements can be about themselves or others and they will tend to be very black and white. Growth mindset people are also attuned to positive and negative messages but they are more

likely to look for the learning in them and decide what to do differently, rather than label themselves and others. Dweck argues that techniques such as Cognitive Behaviour Therapy can be helpful in encouraging people to make more realistic judgements. However, she says that such techniques do not necessarily 'confront the basic assumption – the ideas that traits are fixed'. In other words these techniques do not 'escort them out of the framework of judgement and into the framework of growth'.

TTT 3: Giving criticism constructively

Describe the behaviour, not the person. Do not label them – for example, instead of saying 'You're lazy' tell the young person that they are not putting in enough effort. Phrasing criticism in this way allows the person to see that they are capable of doing things differently. (In other words, give criticism from a growth, rather than a fixed, mindset.)

Ask for a specific change. Think through in advance what you want the person to change. There is little point in criticising someone's work or behaviour without having a clear idea of what you want to do differently.

Don't swamp the person with criticisms. If you have a number of criticisms do not give them all in one go. It is best to decide which changes are the most important for the young person to make. This means that you have to prioritise the criticisms in terms of what would make the most difference.

Ask if you need to do something differently. This allows you to discuss with the young person how they are going to make the change and how you can support them in this.

You may wish to begin or end on a positive note. This may mean starting or finishing by saying what they are currently doing well. However, research shows that people given praise and criticism at the same time are only likely to remember the criticism. This means that you should try at other times to give only positive feedback.

Changing mindsets

Dweck argues that mindset is 'an important part' of a person's personality and she puts forward the idea that much of our mindset is formed from our early interactions with parents and teachers. She sites research which shows that children as young as four display fixed or growth mindsets and those with the former will keep doing easy puzzles rather than moving on to something more challenging. However, it is also important to realise that Dweck believes that mindsets 'can be changed'.

Strategies for change

I. Giving good feedback

Some of the specific recommendations that Dweck suggests to protect young people from the limitations of the fixed mindset are related to praise and criticism and have been outlined within this chapter.

II. Information on the brain

Another of Dweck's major suggestions is that we need to present young people with information on the brain and its huge potential. This lesson would necessarily include information on how learning allows the brain to form new connections and how these connections become stronger.

III. Inspiring role-models

Giving young people information on how figures they know, or admire, managed to succeed through effort and good strategies is another useful device in encouraging them to adopt a growth mindset. Positive stories are another method for helping young people to see the potential for change.

The Curriculum for Excellence

I believe Dweck's ideas are of fundamental importance to us in Scotland. What Dweck describes as 'the fixed mindset', with its tendency to judge and condemn is in essence what I see as the main barrier to the growth of confidence in Scotland. If we can shift this then we have more opportunity to nurture self-efficacy and optimism: without a growth mindset we shall struggle to get many young people to the starting block.

Key Points

1. Carol Dweck argues that people can be divided into two basic 'mindsets'.

2. The fixed mindset upholds the idea that people's ability is fixed and not open to change and it labels people according to ability and personal characteristics.

3. The growth mindset sees people as essentially malleable and accepts that a small minority of people are essentially malleable and accepts that a small minority of people are born with unusual levels of ability (the geniuses).

4. This simple theory of different views of people has enormous implications for learning and how teachers and parents interact with young people.

5. People with a growth mindset see failure as something they need to learn from so that they can succeed in the future, whereas people with a fixed mindset see it as toxic, as it proves they are not talented or clever.

6. For people with a growth mindset, learning and development is all about one thing – effort.

7. Fixed mindset people are often desperate for success to prove how clever and talented they are, however, since they often lack good learning strategies, and are easily stressed by failure, they often don't get to the top.

8. In contrast, growth mindset people are often less fixated on achievement but are more likely to get there. Growth mindset people are enthralled by the learning process, not the destination.

9. Dweck argues that we have to be very careful about how we praise young people. Dweck acknowledges that children love being praised for being intelligent and talented but that the benefits are short-lived.

10. Praise for intelligence often leads children to become more interested in how they are seen by others than in the learning itself.

11. We should praise children for effort, concentration and the effectiveness of the strategies they use, not for talent, ability or intelligence.

12. Dweck is an advocate of giving constructive feedback to young people as a way to hasten their learning and teach them better strategies.

13. People with the fixed mindset have to 'nurse' and 'protect' their confidence because failure and mistakes knock them off their stride so easily.

14. People with the fixed mindset do not always need confidence in order to achieve as they often 'plunge into something wholeheartedly and stick to it'.

15. Mindsets are 'an important part' of a person's personality, however, it is also important to realise that Dweck believes that mindsets 'can be changed'.
