

THE MINDSETS

When I was a young researcher, just starting out, something happened that changed my life. I was obsessed with understanding how people cope with failures, and I decided to study it by watching how students grapple with hard problems. So I brought children one at a time to a room in their school, made them comfortable, and then gave them a series of puzzles to solve. The first ones were fairly easy, but the next ones were hard. As the students grunted, perspired, and toiled, I watched their strategies and probed what they were thinking and feeling. I expected differences among children in how they coped with the difficulty, but I saw something I never expected.

Confronted with the hard puzzles, one ten-year-old boy pulled up his chair, rubbed his hands together, smacked his lips, and cried out, “I love a challenge!” Another, sweating away on these puzzles, looked up with a pleased expression and said with authority, “You know, I was *hoping* this would be informative!”

What’s wrong with them? I wondered. I always thought you coped with failure or you didn’t cope with failure. I never thought anyone *loved* failure. Were these alien children or were they on to something?

Everyone has a role model, someone who pointed the way at a critical moment in their lives. These children were my role models. They obviously knew something I didn’t and I was determined to figure it out—to understand the kind of mindset that could turn a failure into a gift.

What did they know? They knew that human qualities, such as intellectual skills, could be cultivated through effort. And that’s what they were doing—getting smarter. Not only weren’t they discouraged by failure, they didn’t even think they were failing. They thought they were learning.

I, on the other hand, thought human qualities were carved in stone. You were smart or you weren’t, and failure meant you weren’t. It was that simple. If you could arrange successes and avoid failures (at all costs), you could stay smart. Struggles, mistakes, perseverance were just not part of this picture.

Whether human qualities are things that can be cultivated or things that are carved in stone is an old issue. What these beliefs mean for you is a new one:

What are the consequences of thinking that your intelligence or personality is something you can develop, as opposed to something that is a fixed, deep-seated trait? Let's first look in on the age-old, fiercely waged debate about human nature and then return to the question of what these beliefs mean for you.

WHY DO PEOPLE DIFFER?

Since the dawn of time, people have thought differently, acted differently, and fared differently from each other. It was guaranteed that someone would ask the question of why people differed—why some people are smarter or more moral—and whether there was something that made them permanently different. Experts lined up on both sides. Some claimed that there was a strong physical basis for these differences, making them unavoidable and unalterable. Through the ages, these alleged physical differences have included bumps on the skull (phrenology), the size and shape of the skull (craniology), and, today, genes.

Others pointed to the strong differences in people's backgrounds, experiences, training, or ways of learning. It may surprise you to know that a big champion of this view was Alfred Binet, the inventor of the IQ test. Wasn't the IQ test meant to summarize children's unchangeable intelligence? In fact, no. Binet, a Frenchman working in Paris in the early twentieth century, designed this test to identify children who were not profiting from the Paris public schools, *so that new educational programs could be designed to get them back on track*. Without denying individual differences in children's intellects, he believed that education and practice could bring about fundamental changes in intelligence. Here is a quote from one of his major books, *Modern Ideas About Children*, in which he summarizes his work with hundreds of children with learning difficulties:

A few modern philosophers ... assert that an individual's intelligence is a fixed quantity, a quantity which cannot be increased. We must protest and react against this brutal pessimism.... With practice, training, and above all, method, we manage to increase our attention, our memory, our judgment and literally to become more intelligent than we were before.

Who's right? Today most experts agree that it's not either-or. It's not nature *or* nurture, genes *or* environment. From conception on, there's a constant give

and take between the two. In fact, as Gilbert Gottlieb, an eminent neuroscientist, put it, not only do genes and environment cooperate as we develop, but genes *require* input from the environment to work properly.

At the same time, scientists are learning that people have more capacity for lifelong learning and brain development than they ever thought. Of course, each person has a unique genetic endowment. People may start with different temperaments and different aptitudes, but it is clear that experience, training, and personal effort take them the rest of the way. Robert Sternberg, the present-day guru of intelligence, writes that the major factor in whether people achieve expertise “is not some fixed prior ability, but purposeful engagement.” Or, as his forerunner Binet recognized, it’s not always the people who start out the smartest who end up the smartest.

WHAT DOES ALL THIS MEAN FOR YOU? THE TWO MINDSETS

It’s one thing to have pundits spouting their opinions about scientific issues. It’s another thing to understand how these views apply to you. For twenty years, my research has shown that *the view you adopt for yourself* profoundly affects the way you lead your life. It can determine whether you become the person you want to be and whether you accomplish the things you value. How does this happen? How can a simple belief have the power to transform your psychology and, as a result, your life?

Believing that your qualities are carved in stone—*the fixed mindset*—creates an urgency to prove yourself over and over. If you have only a certain amount of intelligence, a certain personality, and a certain moral character—well, then you’d better prove that you have a healthy dose of them. It simply wouldn’t do to look or feel deficient in these most basic characteristics.

Some of us are trained in this mindset from an early age. Even as a child, I was focused on being smart, but the fixed mindset was really stamped in by Mrs. Wilson, my sixth-grade teacher. Unlike Alfred Binet, she believed that people’s IQ scores told the whole story of who they were. We were seated around the room in IQ order, and only the highest-IQ students could be trusted to carry the flag, clap the erasers, or take a note to the principal. Aside from the daily stomachaches she provoked with her judgmental stance, she was creating a mindset in which everyone in the class had one consuming goal—look smart, don’t look dumb. Who cared about or enjoyed learning when our whole being was at stake every time she gave us a test or called on us in class?

I've seen so many people with this one consuming goal of proving themselves—in the classroom, in their careers, and in their relationships. Every situation calls for a confirmation of their intelligence, personality, or character. Every situation is evaluated: *Will I succeed or fail? Will I look smart or dumb? Will I be accepted or rejected? Will I feel like a winner or a loser?*

But doesn't our society value intelligence, personality, and character? Isn't it normal to want these traits? Yes, but ...

There's another mindset in which these traits are not simply a hand you're dealt and have to live with, always trying to convince yourself and others that you have a royal flush when you're secretly worried it's a pair of tens. In this mindset, the hand you're dealt is just the starting point for development. This *growth mindset* is based on the belief that your basic qualities are things you can cultivate through your efforts. Although people may differ in every which way—in their initial talents and aptitudes, interests, or temperaments—everyone can change and grow through application and experience.

Do people with this mindset believe that anyone can be anything, that anyone with proper motivation or education can become Einstein or Beethoven? No, but they believe that a person's true potential is unknown (and unknowable); that it's impossible to foresee what can be accomplished with years of passion, toil, and training.

Did you know that Darwin and Tolstoy were considered ordinary children? That Ben Hogan, one of the greatest golfers of all time, was completely uncoordinated and graceless as a child? That the photographer Cindy Sherman, who has been on virtually every list of the most important artists of the twentieth century, *failed* her first photography course? That Geraldine Page, one of our greatest actresses, was advised to give it up for lack of talent?

You can see how the belief that cherished qualities can be developed creates a passion for learning. Why waste time proving over and over how great you are, when you could be getting better? Why hide deficiencies instead of overcoming them? Why look for friends or partners who will just shore up your self-esteem instead of ones who will also challenge you to grow? And why seek out the tried and true, instead of experiences that will stretch you? The passion for stretching yourself and sticking to it, even (or especially) when it's not going well, is the hallmark of the growth mindset. This is the mindset that allows people to thrive during some of the most challenging times in their lives.

To give you a better sense of how the two mindsets work, imagine—as vividly as you can—that you are a young adult having a really bad day:

One day, you go to a class that is really important to you and that you like a lot. The professor returns the midterm papers to the class. You got a C+. You're very disappointed. That evening on the way back to your home, you find that you've gotten a parking ticket. Being really frustrated, you call your best friend to share your experience but are sort of brushed off.

What would you think? What would you feel? What would you do?

When I asked people with the fixed mindset, this is what they said: "I'd feel like a reject." "I'm a total failure." "I'm an idiot." "I'm a loser." "I'd feel worthless and dumb—everyone's better than me." "I'm slime." In other words, they'd see what happened as a direct measure of their competence and worth.

This is what they'd think about their lives: "My life is pitiful." "I have no life." "Somebody upstairs doesn't like me." "The world is out to get me." "Someone is out to destroy me." "Nobody loves me, everybody hates me." "Life is unfair and all efforts are useless." "Life stinks. I'm stupid. Nothing good ever happens to me." "I'm the most unlucky person on this earth."

Excuse me, was there death and destruction, or just a grade, a ticket, and a bad phone call?

Are these just people with low self-esteem? Or card-carrying pessimists? No. When they aren't coping with failure, they feel just as worthy and optimistic—and bright and attractive—as people with the growth mindset.

So how would they cope? "I wouldn't bother to put so much time and effort into doing well in anything." (In other words, don't let anyone measure you again.) "Do nothing." "Stay in bed." "Get drunk." "Eat." "Yell at someone if I get a chance to." "Eat chocolate." "Listen to music and pout." "Go into my closet and sit there." "Pick a fight with somebody." "Cry." "Break something." "What is there to do?"

What is there to do! You know, when I wrote the vignette, I intentionally made the grade a C+, not an F. It was a midterm rather than a final. It was a parking ticket, not a car wreck. They were "sort of brushed off," not rejected outright. Nothing catastrophic or irreversible happened. Yet from this raw material the fixed mindset created the feeling of utter failure and paralysis.

When I gave people with the growth mindset the same vignette, here's what they said. They'd think:

"I need to try harder in class, be more careful when parking the car, and wonder if my friend had a bad day."

"The C+ would tell me that I'd have to work a lot harder in the class, but I have the rest of the semester to pull up my grade."

There were many, many more like this, but I think you get the idea. Now, how would they cope? Directly.

"I'd start thinking about studying harder (or studying in a different way) for my next test in that class, I'd pay the ticket, and I'd work things out with my best friend the next time we speak."

"I'd look at what was wrong on my exam, resolve to do better, pay my parking ticket, and call my friend to tell her I was upset the day before."

"Work hard on my next paper, speak to the teacher, be more careful where I park or contest the ticket, and find out what's wrong with my friend."

You don't have to have one mindset or the other to be upset. Who wouldn't be? Things like a poor grade or a rebuff from a friend or loved one—these are not fun events. No one was smacking their lips with relish. Yet those people with the growth mindset were not labeling themselves and throwing up their hands. Even though they felt distressed, they were ready to take the risks, confront the challenges, and keep working at them.

SO, WHAT'S NEW?

Is this such a novel idea? We have lots of sayings that stress the importance of risk and the power of persistence, such as "Nothing ventured, nothing gained" and "If at first you don't succeed, try, try again" or "Rome wasn't built in a day." (By the way, I was delighted to learn that the Italians have the same expression.) What is truly amazing is that people with the fixed mindset would not agree. For them, it's "Nothing ventured, nothing lost." "If at first you don't succeed, you probably don't have the ability." "If Rome wasn't built in a day, maybe it wasn't meant to be." In other words, risk and effort are two things that might reveal your inadequacies and show that you were not up to the task. In fact, it's startling to see the degree to which people with the fixed mindset do not believe in effort.

What's also new is that people's ideas about risk and effort grow out of their more basic mindset. It's not just that some people happen to recognize the

value of challenging themselves and the importance of effort. Our research has shown that this *comes directly* from the growth mindset. When we teach people the growth mindset, with its focus on development, these ideas about challenge and effort follow. Similarly, it's not just that some people happen to dislike challenge and effort. When we (temporarily) put people in a fixed mindset, with its focus on permanent traits, they quickly fear challenge and devalue effort.

We often see books with titles like *The Ten Secrets of the World's Most Successful People* crowding the shelves of bookstores, and these books may give many useful tips. But they're usually a list of unconnected pointers, like "Take more risks!" or "Believe in yourself!" While you're left admiring people who can do that, it's never clear how these things fit together or how you could ever become that way. So you're inspired for a few days, but basically the world's most successful people still have their secrets.

Instead, as you begin to understand the fixed and growth mindsets, you will see exactly how one thing leads to another—how a belief that your qualities are carved in stone leads to a host of thoughts and actions, and how a belief that your qualities can be cultivated leads to a host of different thoughts and actions, taking you down an entirely different road. It's what we psychologists call an *Aha!* experience. Not only have I seen this in my research when we teach people a new mindset, but I get letters all the time from people who have read my work.

They recognize themselves: "As I read your article I literally found myself saying over and over again, 'This is me, this is me!'" "They see the connections: "Your article completely blew me away. I felt I had discovered the secret of the universe!" They feel their mindsets reorienting: "I can certainly report a kind of personal revolution happening in my own thinking, and this is an exciting feeling." And they can put this new thinking into practice for themselves *and* others: "Your work has allowed me to transform my work with children and see education through a different lens," or "I just wanted to let you know what an impact—on a personal and practical level—your outstanding research has had for hundreds of students."

SELF-INSIGHT: WHO HAS ACCURATE VIEWS OF THEIR ASSETS AND LIMITATIONS?

Well, maybe the people with the growth mindset don't think they're Einstein or Beethoven, but aren't they more likely to have inflated views of their

abilities and try for things they're not capable of? In fact, studies show that people are terrible at estimating their abilities. Recently, we set out to see who is most likely to do this. Sure, we found that people greatly misestimated their performance and their ability. *But it was those with the fixed mindset who accounted for almost all the inaccuracy.* The people with the growth mindset were amazingly accurate.

When you think about it, this makes sense. If, like those with the growth mindset, you believe you can develop yourself, then you're open to accurate information about your current abilities, even if it's unflattering. What's more, if you're oriented toward learning, as they are, you *need* accurate information about your current abilities in order to learn effectively. However, if everything is either good news or bad news about your precious traits—as it is with fixed-mindset people—distortion almost inevitably enters the picture. Some outcomes are magnified, others are explained away, and before you know it you don't know yourself at all.

Howard Gardner, in his book *Extraordinary Minds*, concluded that exceptional individuals have “a special talent for identifying their own strengths and weaknesses.” It's interesting that those with the growth mindset seem to have that talent.

WHAT'S IN STORE

The other thing exceptional people seem to have is a special talent for converting life's setbacks into future successes. Creativity researchers concur. In a poll of 143 creativity researchers, there was wide agreement about the number one ingredient in creative achievement. And it was exactly the kind of perseverance and resilience produced by the growth mindset.

You may be asking again, *How can one belief lead to all this—the love of challenge, belief in effort, resilience in the face of setbacks, and greater (more creative!) success?* In the chapters that follow, you'll see exactly how this happens: how the mindsets change what people strive for and what they see as success. How they change the definition, significance, and impact of failure. And how they change the deepest meaning of effort. You'll see how these mindsets play out in school, in sports, in the workplace, and in relationships. You'll see where they come from and how they can be changed.

Grow Your Mindset

Which mindset do you have? Answer these questions about intelligence. Read each statement and decide whether you mostly agree with it or disagree with it.

1. Your intelligence is something very basic about you that you can't change very much.
2. You can learn new things, but you can't really change how intelligent you are.
3. No matter how much intelligence you have, you can always change it quite a bit.
4. You can always substantially change how intelligent you are.

Questions 1 and 2 are the fixed-mindset questions. Questions 3 and 4 reflect the growth mindset. Which mindset did you agree with more? You can be a mixture, but most people lean toward one or the other.

You also have beliefs about other abilities. You could substitute “artistic talent,” “sports ability,” or “business skill” for “intelligence.” Try it.

It's not only your abilities; it's your personal qualities too. Look at these statements about personality and character and decide whether you mostly agree or mostly disagree with each one.

1. You are a certain kind of person, and there is not much that can be done to really change that.
2. No matter what kind of person you are, you can always change substantially.
3. You can do things differently, but the important parts of who you are can't really be changed.
4. You can always change basic things about the kind of person you are.

Here, questions 1 and 3 are the fixed-mindset questions and questions 2 and 4 reflect the growth mindset. Which did you agree with more?

Did it differ from your intelligence mindset? It can. Your “intelligence mindset” comes into play when situations involve mental ability.

Your “personality mindset” comes into play in situations that involve your personal qualities—for example, how dependable, cooperative,

caring, or socially skilled you are. The fixed mindset makes you concerned with how you'll be judged; the growth mindset makes you concerned with improving.

Here are some more ways to think about mindsets:

- Think about someone you know who is steeped in the fixed mindset. Think about how they're always trying to prove themselves and how they're hypersensitive about being wrong or making mistakes. Did you ever wonder why they were this way? (Are you this way?) Now you can begin to understand why.
- Think about someone you know who is skilled in the growth mindset—someone who understands that important qualities can be cultivated. Think about the ways they confront obstacles. Think about the things they do to stretch themselves. What are some ways you might like to change or stretch yourself?
- Okay, now imagine you've decided to learn a new language and you've signed up for a class. A few sessions into the course, the instructor calls you to the front of the room and starts throwing questions at you one after another.

Put yourself in a fixed mindset. Your ability is on the line. Can you feel everyone's eyes on you? Can you see the instructor's face evaluating you? Feel the tension, feel your ego bristle and waver. What else are you thinking and feeling?

Now put yourself in a growth mindset. You're a novice—that's why you're here. You're here to learn. The teacher is a resource for learning. Feel the tension leave you; feel your mind open up.

The message is: You can change your mindset.