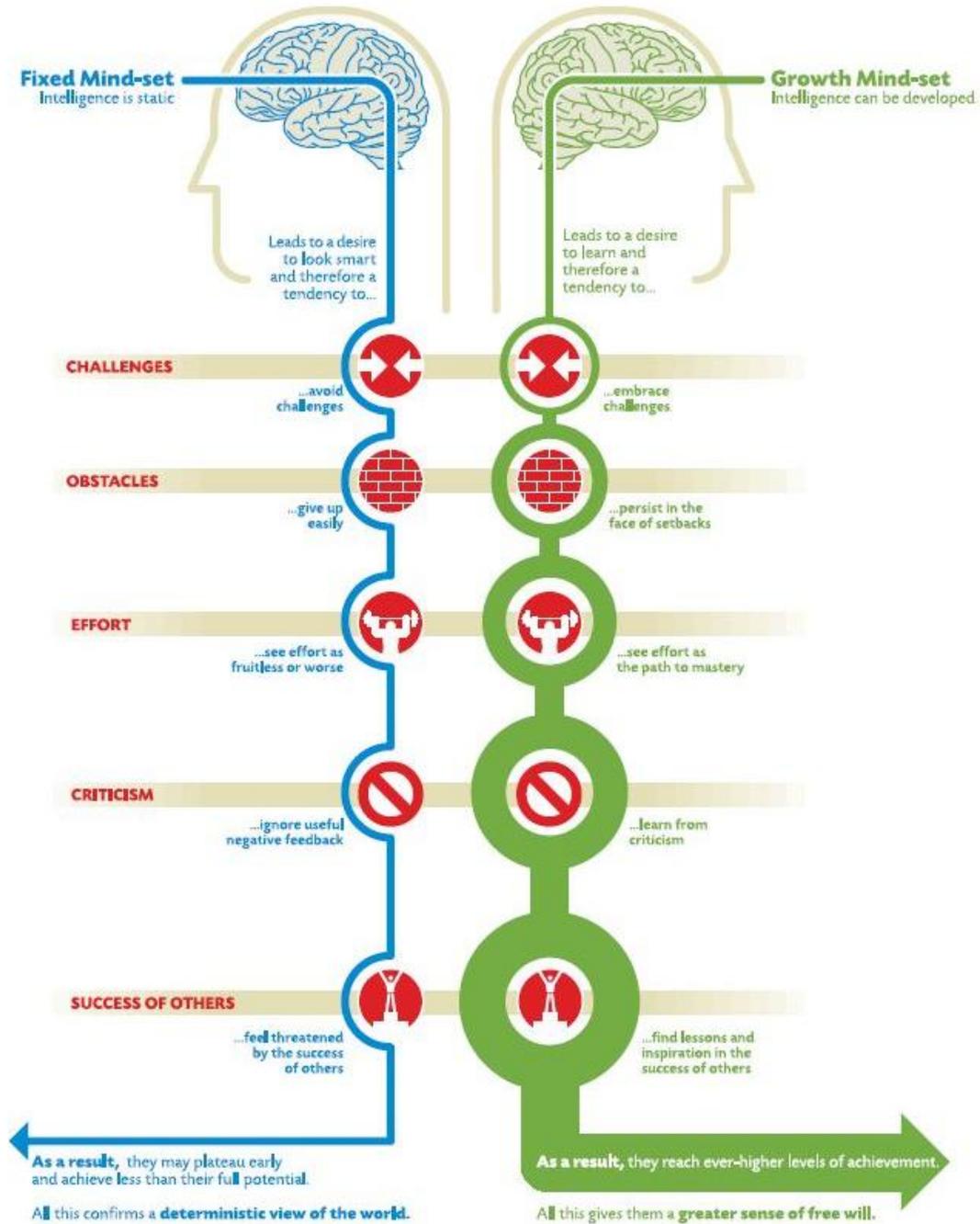


## Fixed or Fluid (Growth) Mindset

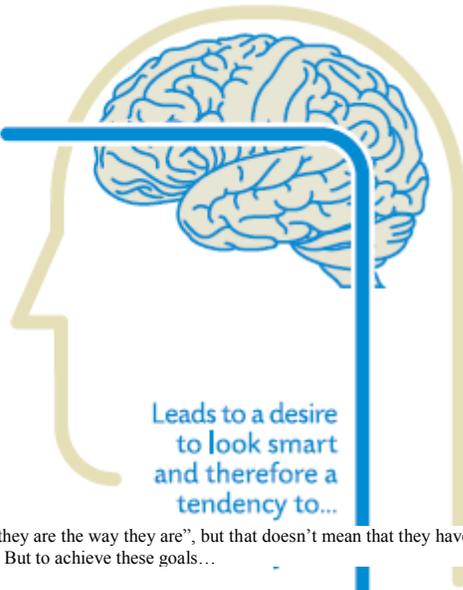


GRAPHIC BY NIGEL HOLMES

Let's have a look, starting with the **Fixed Mindset** side:

## Fixed Mind-set

Intelligence is static



People who hold these beliefs think that “they are the way they are”, but that doesn’t mean that they have less of a desire for a positive self-image than anyone else. So of course they want to perform well and look smart. But to achieve these goals...

### CHALLENGES

...avoid challenges

By definition, a challenge is hard and success is not assured, so rather than risk failing and negatively impacting their self-image, they will often avoid challenges and stick to what they know they can do well.

### OBSTACLES

...give up easily

Same with obstacles. The difference here, as I see it, is that challenges are things that you can decide to do while obstacles are external forces that get in your way.

### EFFORT

...see effort as fruitless or worse

What’s the point of working hard and making efforts if afterwards you are still on square one? If your worldview tells you that effort is an unpleasant thing that doesn’t really pay dividends, then the smart thing to do is to avoid it as much as possible.

### CRITICISM

...ignore useful negative feedback

Useful negative feedback is ignored in the best of cases, and taken as an insult the rest of the time. The **Fixed Mindset** logically leads you to believe that any criticism of your capabilities is criticism of *you*. This usually discourages the people around and after a while they stop giving any negative feedback, further isolating the person from external influences that could generate some change.

## SUCCESS OF OTHERS



...feel threatened  
by the success  
of others

The success of others is seen as a benchmark against which the person looks bad. Usually when others succeed, people with a **Fixed Mindset** will try to convince themselves and the people around them that the success was due to either luck (after all, almost everything is due to luck in the **Fixed Mindset** world) or objectionable actions. In some cases, they will even try to tarnish the success of others by bringing up things that are completely unrelated (“Yes, but did you know about his...”).

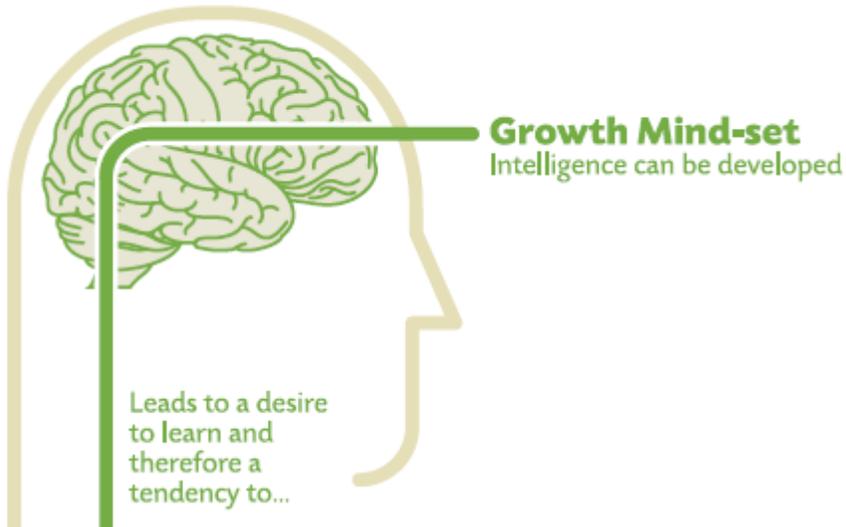
As a result, they may plateau early  
and achieve less than their full potential.

All this confirms a **deterministic view of the world**.

As a result, they don't reach their full potential and their beliefs feed on themselves: They don't change or improve much with time, if at all, and so to them this confirms that “they are as they are”.

## Growth Mindset

Let's now look at the **Growth Mindset**:



People who hold the **Growth Mindset** believe that intelligence can be developed, that the brain is like a muscle that can be trained. This leads to the desire to improve.



...embrace  
challenges

And how do you improve? First, you embrace challenges, because you know that you'll come out stronger on the other side.



...persist in the face of setbacks

Similarly, obstacles – external setbacks – do not discourage you. Your self-image is not tied to your success and how you will look to others; failure is an opportunity to learn, and so whatever happens you win.



...see effort as the path to mastery

Effort is seen not as something useless to be avoid but as *necessary* to grow and master useful skills.



...learn from criticism

Criticism and negative feedback are sources of information. That doesn't mean that all criticism is worth integrating or that nothing is never taken personally, but at least the **Growth Mindset** individual knows that he or she can change and improve, so the negative feedback is not perceived as being directly about them as a person, but rather about their current abilities.



...find lessons and inspiration in the success of others

The success of others is seen as a source of inspiration and information. To **Growth Mindset** individuals, success is not seen as a [zero-sum game](#).

**As a result, they reach ever-higher levels of achievement.**

**All this gives them a greater sense of free will.**

And so, **Growth Mindset** individuals will improve and this will create a positive feedback loops that encourages them to keep learning and improving.

## **Fixed Versus Growth Intelligence Mindsets: It's All In Your Head, Psychologist Says**

*ScienceDaily (Feb. 19, 2007)* — When psychology Professor Carol Dweck was a sixth-grader at P.S. 153 in Brooklyn, N.Y., she experienced something that made her want to understand why some people view intelligence as a fixed trait while others embrace it as a quality that can be developed and expanded.

Dweck's teacher that year, Mrs. Wilson, seated her students around the room according to their IQ. The girls and boys who didn't have the highest IQ in the class were not allowed to carry the flag during assembly or even wash the blackboard, Dweck said. "She let it be known that IQ for her was the ultimate measure of your intelligence and your character," she said. "So the students who had the best seats were always scared of taking another test and not being at the top anymore."

Asked what seat number Dweck occupied during that memorable year, the professor paused, and silently raised her right index finger. "But it was an uncomfortable thing because you were only as good as your last test score," she said. "I think it had just as negative an effect on the kids at the top [as those at the bottom] who were defining themselves in those terms."

From that experience, Dweck became fascinated with intelligence, convinced that IQ tests are not the only way to measure it. "I also became very interested in coping with setbacks, probably because being in that classroom made me so concerned about not slipping, not failing," she said.

According to Dweck, people's self-theories about intelligence have a profound influence on their motivation to learn. Students who hold a "fixed" theory are mainly concerned with how smart they are--they prefer tasks they can already do well and avoid ones on which they may make mistakes and not look smart. In contrast, she said, people who believe in an "expandable" or "growth" theory of intelligence want to challenge themselves to increase their abilities, even if they fail at first.

Dweck's research about intelligence and motivation, and how they are variously influenced by fixed and growth mindsets, has attracted attention from teachers trying to help underperforming students, parents concerned with why their daughters get turned off math and science, and even sports coaches and human-resources managers intent on helping clients reach higher levels of achievement.

The journal *Child Development* released a paper Feb. 7 co-authored by Dweck titled "Implicit Theories of Intelligence Predict Achievement Across Adolescent Transition: A Longitudinal Study and an Intervention." The research shows how at one New York City junior high school students' fixed and growth theories about intelligence affected their math grades. Over two years, she said, students with a fixed mindset experienced a downward academic trend while the others moved ahead.

The psychologists then designed an eight-week intervention program that taught some students study skills and how they could learn to be smart--describing the brain as a muscle that became stronger the more it was used. A control group also learned study skills but they were not taught Dweck's expandable theory of intelligence. In just two months, she said, the students from the first group, compared to the control group, showed marked improvement in grades and study habits.

"What was important was the motivation," Dweck said. "The students were energized by the idea that they could have an impact on their mind." Dweck recalled a young boy who was a ringleader of the troublemakers. "When we started teaching this idea about the mind being malleable, he looked up with tears in his eyes, and he said, 'You mean, I don't have to be dumb?'" she said. "A fire was lit under him."

Later on, the researchers asked the teachers to single out students who had shown positive changes. They picked students who were in the growth mindset group, even though they didn't know two groups existed. Among them was the former troublemaker, who "was now handing in his work early so he could get feedback and revise, plus study for tests, and had good grades," Dweck said. The research showed how changing a key belief--a student's self-theory about intelligence and motivation--with a relatively simple intervention can make a big difference. Since then, Dweck and her colleagues at Columbia have developed a computer-based version of the intervention, dubbed "Brainology," that has been tested in 20 New York City schools.

Although "Brainology" is not yet commercially available, Dweck has brought her work to public attention with her latest book, *Mindset: The New Psychology of Success*. The author of many academic books and articles, Dweck noted *Mindset* was her first foray into mainstream publishing. "My

students [at Columbia] kept saying to me, 'You write for these professional journals and that's important, but what about people in the world?' We are in a profession that talks to each other and writes for each other. That's what we're rewarded for. But my students kept saying, 'Everybody should know this.'

Mindset certainly resonated with Ross Bentley, a world-renowned car racing coach based in Seattle. Unlike coaches who stress technical skills, Bentley focuses on teaching mental competitiveness. He said great drivers strive to attain "a state of flow--a moment when you lose yourself in the act of driving, when it becomes effortless and time slows down. When you get into the flow, or the zone, you're at your peak."

Bentley was thrilled to learn that Dweck's research confirmed his personal approach to coaching. "One of the things that's fascinating for me is that someone with her knowledge has verified things I've known," he said. "She brings a scientific approach, and we're able to give her real-world experience. In addition to sports coaches, parents and teachers have written to Dweck to say that Mindset has given them new insight into their children and students. "One very common thing is that often very brilliant children stop working because they're praised so often that it's what they want to live as--brilliant--not as someone who ever makes mistakes," she said. "It really stunts their motivation. Parents and teachers say they now understand how to prevent that--how to work with low-achieving students to motivate them and high-achieving students to maximize their efforts." The point is to praise children's efforts, not their intelligence, she said.

Last year, Dweck taught a freshman seminar based on Mindset. She chose 16 students from more than 100 who applied, selecting those who expressed personal motivation rather than intelligence. "You can impress someone with how smart you are or how motivated you are, and I picked students who expressed their motivation," she said.

It turned out that embracing a growth mindset was critical to the students' transition to Stanford. The freshmen loved being on campus and quickly became involved in activities, Dweck said, but failed to anticipate the approach of midterm exams. "They were just really overwhelmed," she said. "How did they deal with it? They told me they would have dealt with it poorly, thinking they weren't smart or were not meant to be at Stanford. But knowing about the growth mindset allowed them to realize that they hadn't learned how to be a college student yet. They were still learning how to be successful as a Stanford student." Dweck described the seminar as a "peak experience" in her long teaching career. "The students were fantastic," she said.