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2 A LITTLE ABOUT THE PSYCHOLOGY

You don't develop either of these mindsets overnight; it takes time, weeks, and even months of reinforced behavior and thoughts to develop one's mentality. Certain aspects in life promote one mindset or the other, so knowing how a fixed mindset is formed will help you ditch that old way of thinking and pick up the preferred one.

Stereotypes

Our first avenue of psychology is going to involve dissecting stereotypes. What is a stereotype? A stereotype is a generalized or oversimplified concept of a person. Typically, stereotypes are created from previous knowledge. When we see an Asian that's good at math, we might just think that specific person is good at math. When we start seeing more and more Asians being good at math, since we see it so frequently, to save time and effort, we assume every Asian is good at math. In essence, a stereotype is just categorization. This process is harmless until other aspects like expectations, teasing and similar things join the picture.

For instance, when we think of stereotypes, we usually associate each category with an intellectual level. We'll have a list of "unintelligent" individuals based on stereotypes: jocks, preps, goths, hipsters, populars, stoners, artists, class clowns, gamers, and cheerleaders; this list could go on and on. What about some of the "intelligent" individuals based on stereotypes? Teacher's pet, band geeks, nerds, goodie-two-shoes, overachievers, know-it-alls, Asians – they're great at math, right? – and again, the list goes on and on.

But whether the awkward boy in class really eats paste or not, how does that affect a mindset? How does it aid the development of a fixed mindset? When we classify and categorize people into these groups, we're inadvertently limiting the ones in the "unintelligent" category while giving more room to grow to the ones belonging to the "intelligent" category.

People who feel like they are constantly classified in the "unintelligent" groups may end up thinking that if their skills really are limited, then there no point in them trying at all. If jocks are doomed to a life of average scores, what would make them think that they could do better? They're all brawn and no brain after all – supposedly.

At the 2012 NCWIT (National Center for Women & Information Technology) Summit, Joshua Aronson held a seminar covering stereotype threats, and he established a clear link between these and mindsets. Aronson conducted a study using an AP Calculus test. The typical and quite well-known stereotype establishes that girls are less adept at math than boys, especially in the higher-level mathematics. Even test scores from schools seem to confirm that boys do exceedingly better than females in AP Calculus exams.

However, the typical exam requires the student to fill out their gender as a demographic question prior to the exam. Before taking this difficult exam, female participants are therefore reminded of their gender, and then proceed to take a test where the world expects them to not do as well as their male counterparts. In the same breath, boys are given a boost because they are males, and the stereotype states that boys do better in math; they get a very different reminder before testing.

These statements may seem trivial. What does a girl having to check that she is female really has to do with taking a test? Rationally, we want to believe that these participants scored based on how hard they studied or on their real talents and skills, but that is not true. Aronson found that when participants were asked their gender after they took the exam instead of before, the test scores were different – drastically different. In this

scenario, females scored better than men overall, and the men did not score as high as they usually do.

This study shows just how ingrained stereotypes are in our culture and how heavily they can affect performance. If throughout the course of our young life we are constantly faced with a stereotype that classifies us and we are not exposed to the idea that we have the power to change or grow on our own, that is a ripe breeding ground for a fixed mindset.

How many times a day are we reminded of our own perceived and supposed limitations? Probably more than we would like to admit. The scariest part is that a lot of these reminders are innocent statements not made to purposely belittle us or make us feel inadequate, but just quips that we use without thinking.

To understand the extent of this invisible phenomenon, take a couple of days to track the amount of statements referring to stereotypes that foster a fixed mindset. Whether you say them or hear them from someone else, either about yourself, themselves or anybody else, try to keep track of how many times it happens.

These quips can be just as simple as someone trying something, failing, and remarking that they knew better than to try: “I knew this wasn’t something I would be very good at since I’m [insert stereotype here].” Or even a simple reminder of a perceived stereotype; anything of the sort. If you want to rack up points, you can also count how many times you think something that reinforces a stereotype. Much of the stereotype talk goes on in our own head, without us even noticing.

But let’s move on to a more positive note! Thankfully, we’ve come to terms with the fact that informing students and encouraging them to look at their abilities not as fixed points on a plot, but rather as a skill that just needs some practice, provides a substantial benefit to combating stereotypes.

Helping children to realize that they can grow as much as they want, like a tree that just needs water, sun and time, can inhibit the threat of stereotypes. Essentially, teaching them to have a growth mindset counteracts the negative effects of stereotypes on test scores and intelligence, and ultimately keeps them from restricting their own ability.

I must admit that reminding myself that my abilities weren’t determined by other factors than how much I practiced is something I struggled with myself. When I wanted to expand my horizons, I had to constantly remind myself that I was not limited by the concepts I had allowed myself to be limited to prior.

Self-Fulfilling Prophecies

I’m not talking about ancient texts written in stone here; I’m talking about everyday statements and beliefs that fulfill themselves and thus reinforce that certain belief or statement further. Did anyone ever tell you that if you dwell on it long enough it will happen? That’s exactly what I mean here.

What is this prophecy I am talking about then? Simply put, it’s a prediction. When this prediction becomes true in whatever manner – through direct or indirect means of the prediction – it feeds itself. This concept isn’t as simple as that though, because there are a multitude of other factors that play in, but before we get into that, let’s tie two concepts together.

Self-fulfilling prophecies are heavily linked to stereotypes; it is indeed this not-so-wonderful phenomenon that makes stereotypes so potent. Absorbing a stereotype predisposes us to act upon it, or even preliminarily accept it.

For example, if my daughter was told that she can’t be good at math because she’s a female, she may not believe it at first, but the seed has been planted. When she takes her next test, the thought may cross her mind once or twice, but being my resilient blessing, she would shake it off and continue on.

This statement wouldn’t start to bother her until she scores lower than usual on a test. This could be due to anything (maybe it was just a concept she struggled with), but when the teacher covers the subject, she might start to feel lost. These factors would begin to feed that statement, and she’d eventually “realize” that maybe she is bad at math because she’s a girl. Maybe the statement was true after all.

Sometimes, we even accept the statement or stereotype preliminarily, without further signs or proof needed. We just believe what everybody seems to believe. When this happens, it drastically changes how we see things; we subconsciously start to look for results that support it. And the actions and words of those who believe that

stereotype would continue to reinforce it, whether or not we accept it at first.

If my daughter entered this cycle, she would eventually believe that she's bad at math, which means she'd stop trying and start believing that because she's a girl she couldn't possibly become better at math. Does this statement sound familiar? I'm sure it does, and this is a prime example of how a fixed mindset develops. Luckily, as we mentioned in the previous chapter, it's not so black and white, and she may believe she could grow in every other aspect, but she would still take a fixed mindset to math.

On the matter of self-fulfilling prophecies, *Psychology Today* says, "Our expectation that we will see a particular outcome changes our behavior, which shapes the way others see us. In turn, others provide the feedback we've set ourselves up to get, which serves to reinforce the original belief." I couldn't have said it better myself.

In a nutshell, if you're faced with a self-fulfilling prophecy, you could make yourself believe that your skills are set in stone and develop a fixed mindset as a result.

As adults, our fixed mindsets developed early in our years a long time ago, but the good news is you can gradually shift your mindset to a growth mindset at any point in your life. All you need to start is awareness. It's definitely essential to know that a phenomenon like the one I described cultivates a fixed mindset; once you recognize it, you can work against it. There are two options here: you can use self-fulfilling prophecies to adapt a growth mindset, or you can use a self-fulfilling prophecy to shift away from a fixed mindset and avoid that approach in the future.

If you want to see evidence of this phenomenon in action, look to your own life and those around you. You might be surprised how often you fall into a self-fulfilling prophecy. Try to count the times you say something, bring it to "pass," and then form the cycle. It can be small things or larger things. It can be a simple statement such as, "Today is going to be a bad day," and then it is. That would be strike one.

What we want to do is to start using self-fulfilling prophecies to our advantage. It is a nifty challenge, but we can start small with simple things like, "Today is going to be a good day." We can look for reasons why it will be a good day and reinforce those; if something good happens say, "See, I knew it would be a good day!" As humans, it is too easy for us to forget about the good and only focus on the bad; that is why negative self-fulfilling prophecies are much easier to complete than positive ones. Beware!

Once you've managed a few good self-fulfilling prophecies, and since we're trying to adapt to a growth mindset, it is a good idea to evolve simple statements into ones that oppose a fixed mindset. "I can do this if I just try." This could be a good start, and just like before, remind yourself once you do make progress, "See, I knew I could do it!"

The Importance of Being the Example

So far, we have discussed some of the more minute aspects of developing a growth mindset, but I also want to cover how important it is to be an example to anyone you may be teaching growth mindset to. Whether it's a child, yours or not, another adult or a teenager, being an example will get you much further than if you weren't.

In order to properly and efficiently teach a growth mindset, you have to have one. If you don't have a growth mindset and aren't accustomed to spotting the statements and actions that cultivate a fixed mindset, you don't have the right tools to counteract them, let alone teaching someone else to do it. Exhibiting a growth mindset yourself will prove to be inspirational, refreshing, and the ultimate aid in helping your child or pupil in learning.

Being an example is a concept that is often stressed in all kinds of learning environments, but why? A little bit of psychology can give us that answer.

Bandura conducted a study back in 1961 that involved children mimicking others. There were 72 children split into three groups; the groups were given either an aggressive role model, a non-aggressive role model or no role model.

At first, the children watched a male or female role model either behave aggressively towards the Bobo doll

or play quietly for ten minutes, while in the last group there was no role model exposure. Then the children were put in a room individually and allowed to play with toys. Soon after, someone came in and told the children that these toys were being reserved for other children.

The next room the children entered had both non-aggressive and aggressive toys, such as tea sets or crayons, or mallets and a Bobo doll.

The study concluded that children who observed aggressive behavior acted more aggressively and played with aggressive toys more than either of the other groups.

Essentially, we have to work on changing us before we can change others. If you were just hoping to learn about a growth mindset and impart it to others without taking one on yourself, I hope you've changed your mind and realized how important it is to make sure you are at the least developing your own before trying to help others. Besides, a growth mindset will only improve your life and open up venues you never thought imaginable. So get ready to hunker down and spend some quality time with this book!