

Positive Psychology – Lecture 6

Hope you had a wonderful long weekend. So, let's jump right into it. So where did we leave last time? Last time we talked about the power of the situation, we talk about how beliefs become self-fulfilling prophecies. And how it is through the situation that we very often create expectations, beliefs of people. And these beliefs become reality. And we talked about how social psychology essentially started with some very important experiment such as the Milgrim effect, or obedience to authority. Such as Zimbardo's prison experiment, where prisoners were put in or played... students play the role of prisoners or the role of wardens and they actually entered that role so totally that after a week the experiment had to be stop, when it was suppose to go on for two weeks. And then the question we asked was, OK, so we know that the situation is powerful. We know that it makes a difference. Can we also create a powerful, positive situation to bring out the best in people? And the answer is yes. And we started talking about it and we talk about professor Langer and her research and how she show that putting um...elderly men in an environment where they were actually or where they acted as if they were 20 years younger actually became younger. To the point of having higher levels of intelligence. To the point of improving their memory. Improving their eyesight, improving their hearing. The distance between the bones in their figures actually became longer which is a sign of younger age.

They were rated by others as well as by themselves as stronger and younger just because they acted as if it was 1959 instead of what it was really was, which was 1979. The power of the positive situation. And then she did another more research on people going for an eyesight test, and put them in a situation in a flight simulator. And the exact same eyesight test, they actually performed better just because of the situation. And we moved on that what we ended last time by talking about priming. Priming is...

can be done in the conscious or subconscious level. It means planting a seed, planting a belief, planting a word, or a picture in our mind, consciously or subconsciously. And how that actually influences our behavior.

So Bargh, that time of NYU, did the research where he primed to people with words associated with old. Words if you remember such as wrinkles, words such as old, words such as Florida. And as a result of this priming, those participants in the study actually walked slower, or actually were more stooped. When evaluated by researchers who were not aware of their condition, meaning they didn't know whether they were primed with control words, just random words, or with words associated with old. So it was just through the priming that people actually started to behave differently. The power of the situation. The power of the environment. And then Bargh took it step further and said, OK, let's prime the with positive primes such as achievement, such as persistence, such as success. These words, for example, they had to find a synonym for the word achievement. Those who are primed with these words on intelligence test and on memory test actually performed better than the control group who wasn't primed with these words.

Two Dutch researchers - Dijksterhuis & Knippenberg, what they found was that they brought people, and they ask them to describe for future experiment, not for that experiment. For a future experiment, ask them to describe a soccer hooligan, a secretary and a professor. Describe these three archetypes. And they told them this is for the next experiment where we just want people to evaluate these archetypes. Not knowing that actually by describing these archetypes, these individuals were primed. They were primed for a soccer hooligan, for a secretary, or for a professor. And then they have to do intelligence tests afterwards, memory test after those primes. Those who had to describe the day of soccer hooligan performed the worse. In terms of memory. In term of intelligence. Then there was the secretary and those who

performed the best were those who described the professor. Now they didn't study any harder before. Nothing changed except for the fact that there was a prime, that there was something planted from the environment in their minds. The question then is, how can we create a positive environment for ourselves, where we are primed by the positive, where we can be happier, more successful and so on. And there's many ways in which we can do it. Let me share a few. In fact there's going to be your assignment for this week, or one of the assignments to create a positive environment.

So you are some of the examples. Have pictures of people you love or places you love, the importance of these things is that even if you don't see them, you see them. So on the subconscious level it's still there. Even though on the subconscious level, when people are primed, they don't really see...the word, say achievement on the screen, when it's there for 25 mini-second, they don't really see it, but it registers. So even if a picture is there and you don't “really” see it or not really conscious of it, mindful of it, it still has a impact on you. So have pictures of people you love, have pleasant object, whether it's memorabilia, whether it's flowers, whether it's art, your favorite art. So I have in my house, and my office, my favorite art on the wall, by my favorite artists. And let me share with you a few. I actually brought them here. These are very valuable. I insured them, so it's not a problem. So... so this is, um, this specific artist from the first phase of his career, as you can see, you know, very powerful strokes, very intense, very deliberate, and just gorgeous. And here is, by the same artist from the second phase of his career. Here you already begin to see impressionist influence on his work. But still, you know you see the same trait, the same power, the same intensity. So I have these on my wall.

There's a new and upcoming artist who I want to introduce you to. She still doesn't have a second phase, you know, she's only one year's old. But, you know, this is a work done with the help of her Mom. But again, these are on my wall and they

remind me everyday even I've seen them hundreds of time, it's still there and I think about my kids. And I also have other, you know, less known artists' work on my wall. Again, this is, probably not heard of this one, um, this is Rodin, The Thinker. And, so I have this on my wall, it's my favorite sculpture. And then I have another piece by Rodin just to remind me that it's not all about thinking, there are other things that make life make life worth living. So this is Rodin's The Kiss, for those of you who know it. And again have these things on your wall create(s) the environment where you feel warm, where it's fun for you to be there. Quotes, you know I love quotes, and I know that many of you love quotes. Some of you have sent me your favorite quotes. I have on my wall a list of quotes and they are there even if I don't see them, I see them. So for example, let's see if I brought some here. Yes, here they are. So one is by John Quincy Adams. "Patience and perseverance have a magical effect before which difficulties disappear and obstacles vanish". So priming the issue of persistence, by the way which is one thing that Bargh did it. He primed that and people actually became more persistent. George Eliot, or also known as Mary Anne Evens, my favorite author. She wrote, "The important work of moving the world forward does not wait to be done by perfect men". I'll talk about perfectionism which is a very important, very personal thing for me in about three weeks. So she is a very much a role model. Camus, "In the depth of winter, I finally learned that there was within me an invincible summer".

A quote that has helped me through difficult, through hard times. Henry David Thoreau, "If one advances confidently in the direction of his dreams, and endeavors to live the life which he has imagined, he will meet with success, unexpected in common hours ". Again, I have these quotes up on my wall, and a few others, that many of the quotes that you've seen in the course. And they prime me, they remind me, they create the environment for me. We'll talk about art in the next section, and its importance. Have you favorite books next to you. Listen to music, but listen to it mindfully, not

just as background music but the music that inspires you, whether it's rocky, whether it's Eminem, whoever it is. Watch films that inspire you, all these things help you to create an environment that is conducive to growth, to success, to well being. A lot of this is done on the subconscious level which is the power of the priming. A priming studies. And finally this is what positive research is about. If we constantly focus on "negative" research, anxiety, depression, schizophrenia, we are primed by this research, we are primed by this work. And it creates reality. You know, this indirectly and conjunctionally relates to, some of you may know, the Isenberg principle, is that when you measure a phenomenon, you are changing the phenomenon; when you are measuring a phenomenon, you are also changing yourself. So by researching the positive we are also priming ourselves with the positive. Now, a lot of this work that I'm talking about today and I'll talk about next time actually comes from the self-help movement. In many ways the self-help movement was founded, was started in the 20th century... was started with the understanding that we create the world through our thinking, that our mind creates the world. And books like these came out, back in the 1930's, Thinking Grow Rich.

This book since 1930's sold over 60 million copies. It's still selling. It's selling, it's the best seller in the US, it's the best seller in China, in India, it's the best seller in Africa, it's the best seller in Europe. It has an impact on people and here's one of the things that Napoleon Hill says, "Whatever your mind can conceive and believe, it can achieve." Whatever your mind can conceive and believe, it can achieve. Very empowering. And this had an impact on many different people, on the masses, again, 60 million copies, one of the best sellers in history. Henry Ford had a similar idea, "Whether you think you can or can't, you are right." And people were drawn to this message. Why? Because it's empowering, because it makes them feel that things are possible. Another very influential book, The Power of Positive Thinking, Norman Vincent Peale. "

Have great hopes and dare to go all out for them. Have great dreams and dare to live them. Have tremendous expectations and believe in them.” How inspiring for people to hear that, all you need to do is think, all you need to do is believe, and affluence will come to you. Whether it's intrapersonal affluence, whether it's monetary affluence. And this is been the message that has drawn the masses and continues to do so today. The best selling book today, No.1 best seller all over the world, that's right, The Secret. The secret to success is, what they call, the law of attraction. The law of attraction is that you attract to your life whatever you imaging ,whatever you believe it. Again, a powerful message, millions and millions of copies of this book being sold. As we speak, continue to be sold.

And the message is again simple: believe, and you will achieve; conceive, and it will be conceived. In reality, in the world, it will come to you. Very convincing, very inspiring message. But, is this message right? Well,we talked about this and we saw the Roger Bannister story. You know one day, or six weeks after Roger Bannister runs a mile in 4 minutes, or in 3'59,John Landy runs it in 3'57.9. The year after 37 runners run the mile in under 4 minutes. So there is something to it. Once they believed it was possible, it became possible. And here is the issue, with much of what's going on in the self-help today, self-help realm today, it draws on a truth, a real truth and then blows it out of proportion. So yes, there is some truth in the fact that our mind creates reality. But that's only part of the truth. We create reality or rather we co-create reality. There has to be something out there or in there, for example, when it comes to The Secret. If you believe that you are likely to succeed, you are much more likely to succeed. But that has to come with a lot of hard work and persistence, it has to come with a lot of failure, and learning from that failure.

So it's just half of the equation and what these self-help books and messages do is overpromise and under-deliver, which at times can be destructive. For example, if

everything is based on the law of attraction. I created everything that everything is up to me and also everything is my fault. Even taking to the extreme, is a 3 years old girl responsible for being abused? Is a 30 years old man responsible for being paralyzed as a result of an accident by a drunken driver? There are certain things that are out there and when we say that everything is up to us, everything is created by the law of attraction, then it's a prescription maybe in the short term for inspiration and for belief and for wellbeing, but in the long term, it's for frustration, for guilt, and for unhappiness. And also for less success because if I really believe that it's all about thinking, then this is going to be my mind set. All I need to do is believe and then all the money will come to me. All the success in a relationship will come to me. And that does away with the hard work, with the persistence, with the failure that is necessary, part and parcel of a successful, happy, fulfilling, human life. I want to show you a quick video. This is of an ad I saw online and I actually called the Royal Bank on Scotland and asked them to send me the original. Because it captures some of the misunderstanding that there is today about the power of the mind. Just a very cute ad.

Douglas from the conference. –

James Aderson. - Oh, yeah. That's a lot of green. What kind of bird is it? - What's that?

I don't know.

It's ok guys! I've done a course. -What? -Positive thinking. Positive thought makes a positive impact. OK? Positive thought has a positive impact. Look at me. That's right. Okay, come on. (Emergency Start) Talk is no substitute for action. That's the power. Make it happen. The Royal Bank of Scotland Group.

I am good. - Yes, you are. It captures part of the truth but not the whole truth. So

let's see what serious research has to say about the power of the mind. A real phenomenon, actual phenomenon, but one that we need to also apply real research to see what works. Albert Bandura, on your reading about for this week, has done a lot of work on the concept of self-efficacy which is essentially the academic term for believing in oneself. And here is what he writes after decades and decades of research. He by the way won the researcher's prize for the positive psychologists last year so he's doing a lot of research in this area. He's from Stanford. "Beliefs in personal efficacy affect life choices, level of motivation, quality of functioning, resilience to adversity and vulnerability to stress and depression." Those you believe in themselves, who have confidence, do well across the different areas in their lives, He continues, "People who regard themselves as highly efficacious act, think, and feel differently from those who perceive themselves as inefficacious. They produce their own future, rather than simply foretell it." In other words, what he's talking about here is that these people are scribed in their lives. They create their own lives as oppose to those that are being prescribed by others. They are more resilient, better able to deal with hardships and difficulties. In other words, better capacity as we discussed earlier to deal with difficulties. Now the important thing about this research, in his research over the years is that it can be learned. It's cultivated over time.

So it would be useless if, in terms of research, at least for us if he would say, well, some people are born with it, and others are not. Some people are born with, what they started to talk about, the resilience gene, and others are not born with that. But that's not the case. What he has shown is that it can be learned. It takes time it takes effort, and we will talk about later how we do it. But the important thing, it's malleable. We can do something about it. Other research by Curry on college athletes, I know there are many athletes in this room. She showed that 56% of your successes as an athlete, once you start being an athlete, is determined by levels of hope, by how much you believe that you are going to succeed. Remember from very first or second

class where I talked about the research by John Carter, about the business...HBS graduates. Where he predicted... where the two things predicted success in the long term, extraordinary success of these grads. One was that they were constantly asking questions, and two was that they believed in themselves.

They thought they could do well. But it's important to also realize that it's not 100 percent of the variances that was explained, by hope, or by belief, or by optimism, as many of the self-help books would have us believe. But it's certainly part of the equation of success. Nathaniel Branden has been a therapist for fifty years; he's done a lot of rigorous philosophical and psychological research and work on the concept of self-esteem. We'll visit him more in-depth when we talk about, when we have the week on self-esteem. But for now, just a quick quote: "the level of our self-esteem, in another words, the level of our belief in ourselves, has profound consequences for every aspect of our existence: how we operate in the workplace, how we deal with people, how high we are likely to rise, how much we are likely to achieve and, in the personal realm, with whom we are likely to fall in love, how we interact with our spouse, children, and friends, what level of personal happiness we attain." Very low levels of correlation between material affluence and wellbeing, or between where we live and wellbeing, very high correlation between self-esteem and wellbeing. In most research what we found is a 0.7 correlation between the two constructs. This is what I found in my dissertation as well. So self-esteem matters. The internal matters and what we are doing when we enhance when we raise our levels of belief in ourselves is we are transforming our mind, we are changing the form, so that we see we interact, we see the world differently, we perceive different things, we experience things in a different way. Whether it's successes that we then celebrate, or failures that we then learn from and turn into opportunities. But so much of it is about what we have inside here.

Branden, "self-concept is destiny." Very similar to "whatever your mind can conceive, it can achieve" from Napoleon Hill. The only difference being that he also puts a lot of rigorous thinking and research there and shows the limitation of the belief. Here is another example of research done in the area which most people know about. The Placebo effect. You go to the doctor, you have a headache, the doctor tells you: here I have a pill for you. The best thing. Just came out recently. Will help you get over the headache. Gives you the pill. You get over the headache. Unbeknownst to you, what she gave you was, a sugar pill. But because you thought, because you believed that it would help your headache, it actually did help your headache. Real phenomena medicine. So Herbert Benson, from the across the river, from the medical school here, has done a lot of research in this area. Let me share with you just two of his studies. What Benson did was bringing women who had, who were pregnant, and who had stomach problems... they were vomiting, they were throwing up, they were nauseous, something which is relatively common especially in the first trimester of pregnancy. So he brought them in and told them, "I have this new pill for you that will help you overcome your stomach distress. You won't throw up any more after; this is a very powerful and good pill." So he gave them that pill and they got over their stomach distress, they were better. They didn't know of course this was just a placebo drug, just a sugar pill.

Then he took it step further, brought in another group of women with the exact same stomach distress, with the same vomiting. Gave them the pill, he told them would help them overcome their stomach distress. Only this time, instead of a sugar pill, he actually gave them small dosage, not dangerous but small dosage of ipecac. Now those of you who know what ipecac is... It's a drug that we take if we want to throw up. So if we have food poisoning, we take these drugs and it will actually elicit vomiting. So he gave them this drug and again, this passed all the ethic reviews and was not dangerous, you know But that's what he did. And these women were told that

they'd get better. And they did get better. Not only did they not vomit as they should have done, more so with the ipecac, they actually stopped. Let me read to you an excerpt from his book, which I highly recommend, Timeless Healing. I quote, "Remarkably, the patients' nausea and vomiting ceased entirely and their stomach contractions, as measured through the balloons, returned to normal. Because they believed they received anti-nausea medicine, the women reversed the proven action of a powerful drug.

Even though many of us stock our medicine cabinets and first aid kits with ipecac to bring about vomiting in case of poisoning, these pregnant women with documented stomach distress thwarted the action of a drug that should have made them even sicker. With belief alone, they cured themselves." Now, this doesn't mean that drugs don't have an effect. You know, I don't recommend going home now and, you know, giving your roommates, you know, ipecac or even worse cyanide and then tell them this is actually Vitamin C. they will probably not feel better or healthier as a result. But what this experiment dose, and many others like it show is that powerful effect of the mind which we shouldn't discard. We need to study it and understand. Well, here is another experiment that Benson writes about in his book. This was done in Japan. So, people who are allergic to a specific plant were brought into a lab, had their eyes closed, and then, they had these plant touch their forearm, and then they had another plant touch their other forearm, and they didn't know which was which. And of course that plant that they were allergic to, the arm flared up. They were allergic to it after all. But then, their was a second condition, these people were told that the actual drug(plant) that they are allergic to touched their left hand, and another plant that they were not allergic to touched their right hand.

But Benson reversed the effect, so actually the plant that they were allergic to touched their right hand, and the plant that they were not allergic to touched their left

hand. So they were supposed to flare up on the right, not on the left. But because they believed that the allergic plant was on the left, their left hand flared up, their right hand did not. Based on the power of the mind. Once again, this does not mean that the external doesn't matter and that we attracted everything that we want to into our lives, but it does mean that the mind plays a very important role in creating our physical, certainly emotional, cognitive as well as external reality. Beliefs very often become self-fulfilling prophecies. But how does it work? How does it work? Let me share with you this model that I created based on a lot of research in the field. That essentially tries to explain how our beliefs, our expectations impact our performance. Whether it's through the placebo drug, whether it's our performance in school, in sports, in relationships, in every area in our lives. In other words, what comes in the box here? Or in the...over here? What comes, what mediate between beliefs, expectations and actual performance in the real world? I want to talk about two mechanisms. The first one is very straight forward, relatively simple, it's motivation. So, if I believe that I can do well, and think about your own past experiences, when you believe that you could do well in something, you are much more likely to be motivated than if you think that you are hopeless and have no chance, you are much more likely to resign and not do anything. You are much more likely to be motivated before the event whatever the event may be, in training, in practice, as well as during the event, while it's taking place.

Think about what Marva Collins did. She motivated her students, she made them believe that they could achieve, that they could make something out of their lives and that it's their responsibility that it was up to them, and that made all the difference for them. Because they were motivated, they worked hard. So motivation makes a difference. There is another thing though, in addition to motivation, and that is the notion of consistency or congruence. What does that mean? You see, we all have a mental schema of the world, a mental schema of the way the world should be, or to be

or is. For example, I have a mental schema that suggests that things fall when left in middle air. So I have a schema that says that if I dropped this, it would actually fall. I have a schema about my ability in mathematics that I might be a good mathematician, that I have potential in this area or not. I also have the schema about other people. I like this person. That person is a nice person versus this person is just not nice, cruel. So we have schemas about other people, about ourselves, about natural phenomenon. This is inside, the schema. And then, there is the outside world. In the outside world, actual things take place. For example, when this is left in middle air, it falls. This is, has nothing to do with my schema. It's outside. It happens regardless of my schema. Now I have certain potential in mathematics regardless of my schema.

A certain person behaves generously and benevolently toward other people or in a hateful manner toward other people regardless of my schema. So there is what's inside and what is outside, and here is the key point. You see, the mind dose not like when there is a discrepancy between what is inside and what is outside. The mind likes when there is consistency, congruence between the two, and if there is no congruence, if there is no consistency, then we experience a sense of dissidence, then we experience disease. Doesn't feel good, doesn't feel right and we do, very often, everything that we can to get the two on par again. Either by changing the external reality or by changing our mind to match the external reality. We don't like when there is inconsistency. There are a few ways in which we can create this consistency again. Let me share with you just some of them, and I'm gonna share four.

They are interconnected. There is relationship between. there is overlap, but just so it helps you to think about it. That helps you understand the dialogue that takes place between what is inside or what is inside and what is outside. So the first thing we can do when there is a discrepancy, when there is inconsistency between the two is update schema. This is the first thing we can do. So, I didn't know things fell when

left in middle air, now I know, I updated my schema. Or, I thought that person was actually hateful, but I just saw him behave generously and benevolently, now I update my schema, he's a nice person. The second thing that we do, which happens much more often than the first one, is ignore or discard in external information. We ignore and discard external information that doesn't match our schema. We don't like this inconsistency, we just throw this inconsistency out, so to speak, by ignoring it, discarding it. The third thing we do, we actively seek confirmation. We actively seek confirmatory data.

I mean, think about No.2 and 3, think about in the real you know we are in the midst of election year. Think about the person you are not going to vote for, or the person you didn't vote for. What we do? Very often, let's say, I see President Bush doing something good, actually fighting for a cause that I believe in. But I didn't vote Bush, for instance. Very often what I would do is ignore and discard that information, and then look for confirming evidence that will suggest...or that will confirm to me why I don't like Bush in the first place. This same regarding, say the future elections, Hillary or Obama. If I dislike them, I would look for confirming evidence why I dislike them and even if they do things that I like and value and believe in, I very often will ignore these things and discard them. And what you are doing here, you are creating a reality because you are asking a question such as where has Bush done terrible things or where has Hillary or Obama did terrible things? And when we ask these questions, we completely ignore, discard, not see the positives. Remember when I ask you about the geometric shapes? You didn't see the children on the bus. Even though they were right there in front your very eyes. So we know that questions create reality, and in order to maintain this consistency, we do very often one of these two things. Either ignore and discard, or seek confirming evidence, positive or negative to back up our schema. Hillary, Obama is good or Bush is good or whatever it is that we are thinking about. The fourth thing is much more directly, creating a new reality.

What kind of reality existed before the 6th of May, 1954? It was reality in which four minutes was the limit of human ability. And what did Edison do, sorry, what did Bannister do? He said it's possible and then he changed the external reality. Not just for himself, but also for other runners in the world. And suddenly a new reality was created. Initially the schema was four minutes is not possible, or rather four minutes is not possible and everyone adhered to this schema. Roger Bannister came and said, it is possible, and changed that reality, not just for himself, but for other runners who were there. The thing though is, that after we perform with high motivation, low motivation might look for consistency. All that is left us to do is interpret our performance. Was it successful or not successful, and good or bad? And there are two forms of interpretation. One is the objective interpretation, did I just give A in an exam or did I get a C. Did I just come third or did I come last in their race. Did I just be Princeton in hockey on Friday?

Or did I lose to Princeton? Go Harvard. So what happen? This is the reality. It's objective, its objective. But then, there is also the subjective interpretation based on my beliefs. Let me share an example with you... This is a story told about Thomas Edison. Thomas Edison, back in the 1870's, was working along with the rest of the scientific community on the light bulb, on generating light from electricity. The entire scientific community or much of it was working on that, on that issue, with no success, Thomas Edison being no exception. A journalist from one of the local papers came to Thomas Edison to interview. He was already famous by then, he invented many things. And they were talking about various things and then they got to talk about the light bulb. And the journalist said to Edison, "Mr. Edison, you've been working on the light bulb for many years. The rest of the scientific community has been working on it, to no avail." Now at that point Thomas Edison had conducted 5000 experiments, so, and the journalist knew that so he told Edison, "Mr. Edison, you've conducted 5000 experiments, and you failed 5000 times. Give it up."

Now Thomas Edison, some of you may know was also hard of hearing, in fact one of his patents was a hearing aid. So he said to the journalist, "Excuse me, what did you say?" The journalist said, "well, I said you failed 5000 times, give it up." So Edison responded, "I didn't fail 5000 times. I succeeded 5000 times. I succeeded in showing what doesn't work." Same objective reality, performance, 5000 failed experiments, but very different interpretation. The journalist and many other people in the scientific community conclude it's not possible, the interpretation, subjective interpretation of Edison it's just another stepping stone towards success because it is possible. In fact, Edison declared, before he had the light bulb, that on the 31st of December, 1879, he would display the light bulb. That was long before he had done it. On the 31st of December, 1879, Edison displayed to the world, generating light from electricity. Just like in 1962, John F. Kennedy said that there would be a man on the moon by the end of the decade. And there was before we had the materials necessary for doing it, before we had other technology necessary for doing it. He threw his knapsack over the world and said it's possible to do it. And that created a reality. That was coupled with a lot of hard work. Edison in fact failed more than 5000 more times before he actually created the light bulb. It wasn't just sitting in his room and saying, "I believe therefore I will achieve." It was I believe and I will work even harder now, with more motivation and so on. One of his mantras, "I failed my way to success." It is no coincidence that Edison, by far the most creative and productive scientific genius of all time.

He patented 1097 patents in his career. Much of our world looks the way it looks, thanks to him. No coincidence, but the most successful, creative scientist in history is also, as far as we know, the scientist who had failed the most times. Research by Dean Simonton, we'll talk about it more depth when we talked about perfectionism. Research by Dean Simonton shows that the most successful scientists and artists through our history were also the ones who failed the most times. No coincidence that

"Babe" Ruth, who hit during many of the years when he played the most homeruns, also hit the most strike outs. In five of these seasons, was strike out the most times rather. The most successful people in history are also very often, the people who had failed the most times. This is a sentence that I'll repeat it over and over again in the class and here it is: learn to fail, or fail to learn. Learn to fail, or fail to learn, there is no other way to succeed. There is no other way to learn, in terms of how to work, and there is no other way to learn in terms of learning how to succeed as scientist, or as a politician, or as an artist. The artists, as Dean Simonton showed, who had the most dubs, the most failed attempts through out history were also the artists who were the most successful in the long run. No short cuts. It's not enough to just sit down and think, and conceive and believe. We need to do much more than that.

Martin Seligman, considered father of positive psychology, has done a lot of work on optimism and pessimism. And here is what he found. What he found was that when it comes to goal setting, pessimists are realistic in terms of their short term goals as well as in terms of their long term goals. That's good thing to be a realistic. Short term goal as well as long term goal realistic. Where as optimists are realistic, sorry, optimists on the other hand, are unrealistic when it comes to their short term goals, but are realistic when it comes to their long term goals. Why is that? Well, let's look at the model again.

So let's take the pessimists first. They have certain goal, and they have low expectations, low levels of beliefs, they don't think they would do well. Low levels of motivation, their mind looks for consistency, and their performance is usually according to their beliefs and expectations. And the interpretation is, I told you so. I told you I couldn't do well here. And then everyone else in a chorus says, yes, you told us so. How wonderfully realistic of you. But then sometimes a pessimist succeeds beyond his or her expectations. And then what happens? The interpretation is, low

levels of beliefs, so the interpretation is, well, it was lucky, it was because Mars was in front of Venus, and that only happens once every 50 years, won't happen again. Or, it was my lucky day, or, she just played very poorly today. And then, the mind looking for consistency, they go around that loop again and again, and then become realistic once more. Unsuccessfully realistic, but realistic. So they're realistic in the short term as well as in the long term.

Let's look at the optimist now. The optimist starts with high levels of beliefs, high levels of expectations, motivation, incredibly high. The mind looking for consistency, performance, not so good, not as good as the expectations were. In other words, unrealistic. However, the interpretation, because of high levels of beliefs, the subjective interpretation is, OK, so, what if I learn from it? This is an opportunity; I've actually got better this time. What if I learn? And they still have high levels of beliefs and high levels of expectations. Motivation is high, the mind looks for consistency, they perform, still not good, not as good as they expected, unrealistic. But the interpretation, still, what if I learn from it? I've gone even better this time. I've shown what doesn't work. And they continue. But then comes the quarrels from the outside and says, "come on, really, why can't you be realistic like your good brother or sister, the pessimist."

But they believed that they can do it, and they continue to persist and to work hard again and again. 5 times, 10 times, sometimes 5000 even 10000 times, until they bring the "unrealistic reality" and make it realistic to match their beliefs over time. So even though in the short term, the reality may not match, I may run the mile for the next 10 years in 4 minutes and 12 seconds or 4 minutes and 2 seconds. But I'll get there eventually and make my unrealistic "expectations" and goals realistic. Through a lot of failure, through a lot of hard work, through a lot of persistence.

What Seligman shows about optimism and pessimism is not that it's not just some

pollyannaish feel-good, you know conceive and believe, kind of approach. Rather, it's about how we interpret events.

So for example, how do I interpret my failure? As end of the story, catastrophe, give it up? Or as an opportunity for success? So he distinguishes, and we'll talk about it more next time, he distinguishes between interpreting an event as permanent or temporary. I just didn't create light from electricity, so that could mean, well, it's not possible and I'll never do it or it could mean, well, this is another step towards success: showing what doesn't work. I've just being turned down from a job that I wanted, well, it means I'll never find a job or that's a temporary setback. Let's see what I can learn. Let's see how I can home my search and find, eventually, my ideal position. It's also about being pervasive or specific. Pessimists look at things that's being... the negatives, being pervasive. Well, I'm just not a good scientist versus... well,

I just wasn't able to get this experiment right this time. Or if I get a poor grade on an exam, I'm just stupid. Pervasive, everything, all or nothing. Versus I just didn't do well here on this specific exam. What can I learn from it and how can I do better next time. This is what optimism and pessimism is. And it can be learned. A lot of research in this area...showing how learning to interpret events subjectively as optimists leads to much higher success. Some of you may recognize Matt Biondi. 1988 Seoul Olympics. Many people thought that he could equal Mark Spitz records of seven gold medals. First race, silver medal. Huge disappointment. Second race, bronze medal. Huge disappointment. Everyone I remembered that very distinctly. People talking about how he falls under pressure, how he is not the person we thought he is. Martin Seligman at that point said "no, he's going to succeed" Why? Because he measured him and many other athletes on their levels of optimism and pessimism. And Matt Biondi was a constant optimist.

And he knew he would interpret these "failures", I mean, you know bronze and

silver medals in the Olympics, failures, right? But these relative for him expected to win seven golds, failures, he would interpret them not as permanent. “I choke. I can’t make it in the Olympics” as pervasive “I can’t swim well anymore and win” to temporary and specific, which he did exactly that and won the next five gold medals. Surprising many people, not Seligman and his research team who knew exactly what his interpretation style would be following these “failures”. Also it associated with social and physical mental health. For example, our immune system ,psychological and physical immune system is actually stronger as a result of being optimists. Resilience levels, a lot of research by Karen Reivich shows that if you teach people to interpret things positively, optimistically, they are much more likely to succeed. Those of you who are interested in more about this, her book, The Resilience Factor, Karen Reivich, fantastic book, where she talks about programs implemented where within a few weeks kids are immune to the experience of depression two years hence...

People who learn to be optimistic and she teaches them in a short period as two weeks compare that to the five years of the Cambridge Summerville Study. Within as little as two weeks, people who were taught optimistic interpretation style become happier, those who learn it are eight times less likely to experience depression. Eight times less likely to experience depression, if you simply learn a different interpretation style. I haven’t failed 5000 times; I’ve succeeded in showing what doesn’t work. So what if I didn’t do well now, I will do better next time or the time after that. People who learn to interpret things more positively actually live longer. And we’ll talk about some of this research. You’ll read about a bit of it, the Nun Study and so on. People who interpret things positively or more optimistic actually live longer. Now that does not mean that all pessimists die young and all optimists die old. That’s just one of the factors that goes into the equation, there’s many other things. You know, you don’t want, there is also unrealistic optimism that we’ll talked about it in a minute. You know a person is optimist and says, “I’ll live to 120 no matter what

“and smokes, you know, 120 cigarettes a day would probably not live to 120.

So it's not just about the belief, but a lot of it is. And finally, as I mentioned time and again, it can be learned, and we'll talk about how it can be learned and how we can learn, and you'll do it whether it's in your response paper, not for this week, but for the next week, as well as in sections, as well as by yourselves. A technique that can be learned and can have all these positive effects. Okay. There's a problem here though. You know, how do I distinguish between this and realistic optimism and unrealistic optimism. Detached optimism that is advocated in for example for self-help movement. Is everything that I think of I achieve and conceive and becomes a reality? Is my self-concept my destiny and my only destiny? Or is there such a thing as unrealistic beliefs? And there is such a thing as unrealistic beliefs. Here is an example. Her name was Rena, she was a showgirl, at least to me, she was. Rena and I had a great deal in common. We were both in our teens, I was twelve. She was fourteen. We both were in our fives. She was 5'6. I was 5'1.

I was in love with Rena. Rena too was in love with herself. Now just as a side note, I have a wonderful mother, and amazing mother who believes in me. And in fact when the three of us. We were three brothers and sisters would come home from school. We would very often talked to our mom about everything that was going on in school, good and bad. So I came home after I realized that I was truly and madly in love with Rena and that she was the one for me. I came home and talked to my mom about it. And I told her, “Mom, I love her so.” So she said, “what's the problem?” And I explained to her that she was older than I was and all the big boys in the school were interested in her, that she was much taller than I was. And my mother believed in me and went on self-fulfilling prophecy campaign. And though she had never read Napoleon Hill, she said to me, “Tal, whatever you conceive, whatever you believe, you can achieve.” And though she had never read Branden, she said to me, “Tal, your

self-concept is destiny. And Rena is your destiny." And she told me that if I truly, truly believed that I could, that Rena would want me. She really would want me. And my mom inspired me and made me believe in myself.

So I went ahead to approach Rena, and I prepared for it. I really prepared for it. Though I wasn't shaving at that time, I put on aftershave. And I continued. I can do it. I know I can. And I approach Rena, but then the music stopped. And though I had very high expectations, and though I envisioned success. I closed my eyes and I saw myself succeeding. She was not interested. She didn't want me. However, however, we became very good friends. In fact so good that she would tell me about all her shallow and tall boyfriends. Now when my mom told me that she really believed in it, that she thought I was ,you know that she told me this in Yiddish and she said "foreign language" which means in Yiddish "you're a big find." I was really my, you know, really, I was my Jewish mother's kosher Pygmalion. So bad, yeah. You know, that took me a lot of time to think about, you'd better appreciate it. But...thank you, thank you. But it didn't work. And again, don't get me wrong, I'm very grateful to my mom. I literally had 24/7 Marva Collins in my house. I owe so much to my mom. However, in this case, it probably was not the realistic belief. So what is realistic? How do we identify what is realistic and what is not? Here are some ideas to help us do so. The Stockdale paradox. It's about finding the tension, reconciling the tension and it's not easy. Again, I'm not going to give you a formula now to tell you: OK, here is...calculate this, and if it's above seven, go ahead with green; below seven, probably not so. There is no formula. But here is, just a heuristic, something to think about when you think about beliefs.

James Stockdale was admiral. James Stockdale was the highest ranking prisoner of war in the... in the Vietnam War. And he started to notice a phenomenon. He was there for years. Eventually got out and live to tell the tale many others did not. And he

saw many people survive, many people not survive. The very harsh conditions of the prisoner. What he was that the people who survived had two characteristics. First of all, they believed that they would get out, they had faith that one day they would be free. They would get to see their family, their friends. And this faith kept them going. At the same time, and this is the second component, they had realistic beliefs and evaluation of the situation. If any one of these two components were missing, they were unlikely to survive. If they didn't have faith and they didn't believe it they would survive, they were very likely to die in the harsh conditions. On the other hand, if they thought that they would get out by this coming Christmas, and really believed that they would get out by this coming Christmas, they were also less likely to survive. Because they didn't get out by this coming Christmas, and then they were despondent, resigned, helpless, and very often, they died. So it was the two components, believe that you would get out, but at the same time know that you need to deal with reality and that it's tough.

Here is what James Stockdale said, "you must never confuse faith that you would prevail in the end which you can never afford to lose with the discipline to confront the most brutal facts of your current reality whatever they might be." Realistic optimism. Now the thing is that you may be wrong at times. And sometimes you may really believe in something, and believe it that you have realistic expectations and not succeed. But as we talked about... And as we'll talk about in a few minutes, it doesn't matter that much. Because even if we don't succeed we just bounce back up. And continue working hard. The key though is as much as possible, to attain this balance. What Maslow calls The Graceful Integration between high level of beliefs and connection to reality. No prescription here. But just a heuristic, something to keep in mind. Positive thinking is not THE secret. Yes, it's part of the secret. Yes, it's part of the success formula. Yes, it's part of the happiness formula. But it's not all. False optimism sooner or later means disillusionment, anger and hopelessness. Here is the

secret of success. This is the secret proven by research. Thousand of years of research and successful people in different cultures, in different places and in different ages. It's optimism, passion and hard work. It'll be very hard for you to find successful men and women through out history who did not have all three. Optimism, belief, faith that they can do well, that they can succeed. Passion, love for what they were doing. And hard work.

There is no substitute for hard work as Edison said. These 3 components. The secret...simple, straightforward. You know it all. Remember what I said during 2nd class. I'm not going to teach you much new. I hope to remind you what you already know. Optimism, passion and hard work. Does luck play a role? Absolutely. Jefferson, "I am a great believer in luck, and I find that the harder I work, the luckier I get." There is actually science behind luck. And you'll read about it in the Luck Factor. Where people who have these 3 components, who believe they can do well, who love what they do and work hard, actually find more luck. In the words of Thoreau in Common Hours. Okay, so why don't all the parents teach us to have high expectations? If it's so good for us, if it's related to success, to happiness, to physical well-being, why don't all our parents just say to us whatever we work, you can succeed, you can do it. If you dream about it, you can do it. Why did very often parents and people who care about us lower our expectations? Because they are concerned about our happiness. They are concerned about our self esteem. You see, there is a lot of belief...People believe that high expectations naturally lead to disappointment. So...high expectations lead to disappointment. And it sounds right.

I mean, this is the formula that was written in the 19th century by William James. He said that self-esteem is equal to our success over pretensions. In other words, our achievement... how much we succeed, how much we achieve over what we pretend or what we aspire to, what our goals are. In other words, if we have high expectations,

high pretensions, we are much more likely to hurt our self-esteem. For example, let's say my aspiration, my pretension, my expectation is to make 4 thousand dollars a month. Again this...I just throw in a numeric example here because it's easier to understand. Let's say my hope is to make 4 thousand dollars a month. That's my pretension. But in fact what I end up making is 2 thousand dollars a month. According to William James' formula, my self-esteem, and as we know self-esteem and happiness are very highly co-related and related. My self-esteem, my happiness level according to this formula is a half. On the other hand, let's say my pretensions, my expectation is to make 1.5 thousand dollars a month and in fact I make 1.5 thousand dollars a month. According to this formula, my self-esteem, my happiness level is 1.

So here even though I'm making less, again I'm using a numeric example here, you can think about other examples. Even though I'm actually making less here, my self-esteem and my happiness are higher. So lower your expectations. Not so. What was found in the last 35 years of research is that this formula is actually wrong. That's not the case. Here is how it actually works. Let's say we have a graph. And this is time. And here is my self esteem levels and happiness levels. And let's at start off around my base level which is here. And then I had a mid-term in Positive Psych. And I don't do as well as I expected to. What happens to my self-esteem? What happens to my happiness? Of course it'll go down. It's natural we all want to succeed or most people want to succeed.

So it goes down if it's below my expectations but very quickly as the research by Daniel Gilbert shows on effective forecasting... very quickly we go back up to our base level of happiness. And then a week later I have another mid-term in say, maths 55. And I ace it. I get much higher grade than I expected. And what happens to my self-esteem and happiness? It goes up. But then very quickly it goes back down again. And then let's say I'm 12 years old and I walk down the street and I meet Rena and I

ask her out. And she says no. What happens to my to my self-esteem and happiness? It goes down. Slightly. And then very quickly it goes back up again. And then lucky me. I walk down the street. I think I see Rena but there is something different about her. And it turns out she has a twin sister. And I ask her out. And she says no. And what happens once again? Slightly down. But then I recover and go back up again. And you won't believe it. They are identical triplets. And I meet the 3rd sister and she says yes. She says I love you too. And what happens to my to my self-esteem and happiness? It goes up slightly right? Even taller than this. But then very quickly back down to base level and so on and so on. The vicissitudes of life...

whether I get tenured or not tenured, whether I win the lottery or lose money. The ups and downs around a base level of well-being. Now there is good news here and there is bad news here. The good news is I can take more risks. It's not the end of world if she says no. It's not the end of the world if I fail here or if I don't get my dream job. It's okay. I'll recover. We all do. So that's the good news. The bad news is...so I'm stuck? So I was born with this base level according to my genes and I can't really improve? How do I raise this base level of happiness? And it's possible. And we'll talk about... the whole course is about raising the base level of happiness. But here is one finding from specifically the research on self-esteem. On one thing you can do right now when you get out of class to raise self-esteem and that is to cope as opposed to avoid. To cope meaning to put yourself on the line. To take risks not when you're in your panic zone but when you're in your stretch zone. To risk failure. To handle things, to deal things, to confront things that are important to you. To try out for that play. To speak out in session if you haven't. To go out to a place where you really want to go but never really try. To try. Because people who cope overtime have the same or sometimes more ups and downs. But their ups and downs look like this. Still ups and downs. Permission to be human. But the base level increases. Why does the base level increase? I'm gonna end here. Why does the base level increase when

we cope rather than avoid?

For 3 reason. First self perception theory. Daryl Bem... I think from either Dartmouth or Cornell... what Daryl Bem showed was that we derived conclusion about ourselves in the same way that we derived conclusion about others. So for example if I see a person going up to people and initiating a conversation or speaking up in session or trying out for a play and trying again and again. My conclusion about this person is this person is courageous. This person must have high self-esteem. And I may derive the conclusion about myself in exactly the same way. By seeing myself behaving a certain way, I reach a conclusion about my self-esteem or benevolence or generosity or whatever it is. Self perception theory. And if I cope, if I try things out then I see that this is a person with courage. This is a person who tries. And my conclusion about myself would be I must have high self-esteem. And

my self-esteem as well as happiness level overtime will actually increase. Self perception theory. We derive conclusion about ourselves in the same way we derive conclusion about others. Meaning by looking at behavior. When we fail after coping we realize that the actual pain that comes with failure is far less than the pain we imagine and that we associate with failure. I just got over it. Okay, so I didn't do well in here or she said no. but I got over it. Whereas I imagine it in my mind I think it'll last forever. Just like those tenured or not tenured professors thought that their pay will last forever whereas it goes away. So when I realize the pain of actual failure is far less than the pain associated with failure, I become more confident. I can handle it. I'm actually much more resilient than I thought I was. And my self-esteem increases. My happiness as a result increases too. And finally there is more success because there is no other way to succeed. There is no other way in terms of learning how to walk. There is no other way in terms of succeeding in art or in science or in business or in politics. Learn to fail or fail to learn. I'll see you on Thursday.