

On the internet and around the world, a thousand Gurus sell different remedies for human misery. And yes, we badly need remedies for depression. The great news is that, behind the scenes, scientists are now unlocking many secrets about human happiness. We are discovering that we can literally change our neurochemistry by changing our lifestyle, in many different ways. For example, did you know that the friendly bacteria in your gut, produce more than 50% of your serotonin in your body or they used to. If you consume certain types of artificial sweetener, you probably wipe most of them out!

Did you know that regular physical exercise produces large quantities of BDNF? The same neurotransmitter, which is boosted by many anti-depressants. BDNF not only makes you happier, it promotes neuro-plasticity. The growth of new connections in your brain and slows down the aging process itself.

So welcome to the proficiency course on the Science of Happiness: Theory and Practice.

To begin with, let's talk about what happened to happiness?

Human beings have dreamed about happiness and talked about it for thousands of years. More than 2,300 years ago Aristotle, the Greek philosophical genius, who is regarded as the father of modern science, was fascinated by the idea of human happiness. Strangely enough, at the same time, on the opposite side of the world, the Chinese thinker Zhuangzi wrote a book called Perfect Happiness. Aristotle was the first person to claim, very boldly, that "happiness is the meaning and purpose of life, the whole aim and end of human existence." In other words, no matter what goal you think you may have, behind that goal lies your deep desire to be happy.

For example, for many people in the United States, the American dream is to own a house, make lots of money, and get their kids into Ivy League. But Aristotle would say, that behind that dream is a deep desire to be happy. Aristotle realized that we need external things such as physical wellbeing and friendship, but he thought that the main ingredient of happiness was virtue, which we find by cultivating the right habits or life skills. He insisted that if we only teach kids about intellectual topics such as math, science, and geography that's not really education. The central goal of education should be wellbeing and happiness. And to support that goal, we should teach kids about science, language, and the arts etc. To use Aristotle's famous quote, "educating the mind without educating the heart is not an education at all."

As we mentioned, during exactly same period, the Chinese thinker, Zhuangzi, tried to answer the same questions. What is happiness and how do we find it? These two pioneers from Greece and China had many different ideas but, strangely enough, they both insisted that there were two kinds of happiness. One is a more fleeting kind of happiness based on physical pleasure. And the other is a deeper long-term kind of happiness 2,300 years later, in spite of the insights of Zhuangzi and Aristotle, as well as legions of psychologists and psychiatrists, the world is experiencing a silent pandemic of anxiety and depression. Why is it happening?

Even before Covid-19, depression among teenagers was steadily increasing. In this table, you can clearly see that an epidemic is taking place. It began to take off around 2010 and by 2018 it had jumped by more than 50%. You can see that this was a pretty steep curve for male teenagers, and, an exponentially,

steep curve for females. And that was before Covid-19, now we have a full-scale emergency! In the United States the percentage of people experiencing some form of emotional turmoil has now double in the last two years from twenty-five to nearly fifty percent. Why is this happening?

Many scientific studies seem to show that we have missed the elephant in the room, our modern lifestyle, and it is a big elephant. For example, let's take a look at the way modernization has changed the way that we communicate with each other. This table shows the sale of cellphones and smartphones between 2004-2018, you can see that mobile phones hit the market before 2004 but smartphones take off around 2010 or 2011. Does that curve remind you of something? During the same period, you can see a sudden jump in depression rates for teenagers. Smartphones have clearly had a profound impact on the way we communicate and socialize. According to a flood of recent studies, heavy users of social media have a much higher depression risk than light users. It seems to be a cause-and-effect relationship, and not only a correlation. The increase in depression seems to be triggered by what psychologists call "upward social comparison" or what we call "Facebook envy." On top of that, the longer we spend looking at the screen, the less face to face contact we have, and the less exercise we get. But please don't get off your chair quite yet. Let's talk about some wonderful and surprising solutions, and specifically, the birth of the new science of happiness!