

# THE SCIENCE OF HAPPINESS

Have you ever noticed that some people always seem happy- the “Sunday child” who always looks on the bright side of life? These people have either learnt from an early age how to control their feelings or were born with a built-in ability to see the bright side of life. Feelings of happiness are generated in the left side of the brain. Brain scanning equipment has shown that roughly a third of people have this “left brain” dominance. Studies of genetically identical twins who are separated at birth, show that personality and happiness are in part pre-programmed into us. Positive feelings though are NOT JUST a matter of destiny – we can learn to be happy.

We experience negative feelings more intensely and more readily than positive ones. If we are shown pictures of people with sad and happy expressions, we respond more intensely to the sad faces than to the happy faces. This is all down to evolutionary biology. The brain has developed feelings of fear and sadness as responses to dangers from the outside world. It motivates the animal to avoid dangers that could lead to harm. While sadness can sometimes be helpful, for example in forcing us to re-evaluate our goals and helping us attain new strength and clarity, there comes a point when these thoughts can overcome us and become all consuming. THAT'S IF WE LET IT!

Depression and anxiety does more than just make us feel unhappy. It's also very bad for our health. In fact, being chronically depressed or anxious is more dangerous to our health than smoking! When we are stressed our bodies release a chemical called cortisol which weakens the immune system, making us more prone to infections and more likely to develop stress related conditions such as heart disease and stroke. STRESS REALLY IS A KILLER! That's why it's SO important that YOU turn things around as quickly as possible, by putting into practice the things we are going to go through below:

## • EXERCISE

More than 80 studies have all come to the same conclusion. People who engage in regular exercise – 30 minutes a day are better in themselves and are less depressed. Participating in sports e.g. joining a badminton club/joining an aerobics class is very good as we also benefit from the social contact with other people – more of this later. When we exercise our bodies release natural chemicals called endorphins. It chills us out and naturally lifts our mood!

## • KEEP YOUR MIND BUSY

We worry more about things when our mind is not kept occupied. That's why people who are unemployed often suffer very high rates of depression. Activity leads to positive feelings. When we set ourselves goals we have something to look forward to. The anticipation of doing something new makes us happy. It doesn't matter what it is – learning how to cook, learning a new language, renovating the house, finding a new job that challenges us – it all helps.

## • KEEP POSITIVE - DON'T JUST GIVE IN!!!

By giving into negative feelings like anger and sadness, not only do we fail to make them go away, but we actually reinforce them. Emotions are unconscious responses e.g. blushing when we are embarrassed. Feelings on the other hand are conscious perceptions – and can be changed. A positive outlook can become a habit – just as a negative outlook can become a habit if you let it!!

While it can be tempting to shout at the person who cuts in front of us in the car “to blow off steam”, it is more likely to intensify the anger so that the next time someone does it we respond even more aggressively. Fighting anger with anger is like pouring oil onto a fire.

The same works with feelings of sadness. The more we feel sad the more we intensify that feeling and the worse we make things. The SPLIT SECOND we have a negative thought we must turn it around and stop ourselves from intensifying the feeling. This is the basis of what psychologists do when they help people combat their negative feelings with for example cognitive behavioural therapy.

Psychological/Talking therapies are available through the NHS and can be accessed here: <https://www.nhs.uk/service-search/mental-health/find-an-nhs-talking-therapies-service>

Having a positive outlook can affect how well we cope with chronic illnesses. In conditions such as chronic back pain studies have shown that the more we focus on the pain the more we intensify and prolong it.

Psychologists have found that the brain stores the memory of a feeling only at its most intense and in its final moments. You will have enjoyed a party much more if you leave the party when it still at its liveliest rather than staying to the bitter end when its dying off. If you are feeling down, keeping a “Happiness diary” to keep track of good moments during the course of the day can draw your attention back to what made you happy. Like I said earlier, we have a natural tendency to respond more intensely and more readily to negative things. Its very easy to only remember the bad things, the things that annoyed us when we were at work, and forget about all the good things that happened- like when we helped a colleague sort out a problem. What makes us happy is different for each of us – the trick is discovering for ourselves what makes us happy.

#### • **PAY ATTENTION**

Have you ever noticed how young kids are excited about everything! That's because everything is new to them. As we get older we lose that excitement – because WE THINK we've done it all before or we know it all already. The capacity for enjoyment through ATTENTIVENESS is something we can learn. Focus on the sensory perception and on nothing else – forget about meaning and purpose. Appreciate the scent of a perfume or the taste of a new dish. The better we know the world the more we value it. Appreciating things through the senses, by increasing our awareness of things, is one of the central beliefs in Buddhist teachings. Buddhists achieve this “heightened level of awareness” through meditation. It's been known for over 30 years that when people meditate to calm their thoughts, their muscles relax and their brains enter an alpha brain wave pattern. This leads to decreased heart rate, blood pressure and less stress hormone being released.

The more often and intensely we experience a stimulus the more positively we react to it. In an experiment Westerners were shown Chinese symbols - although the subjects didn't understand what the symbols meant, the more often they were shown the symbols the more they developed a preference to them and the more it lifted their spirits! Our natural tendency to be bored kicks in only when we fail to rotate our pleasure, a subject which we will go onto next. There is no contradiction in saying we derive pleasure from both novelty and familiarity.

#### • **VARIETY REALLY IS THE SPICE OF LIFE**

We quickly get bored by the same thing. Go out to dinner every night for a week or go to the cinema too often and you'll know what I mean. The brain quickly adapts to what was a pleasurable experience and needs even greater stimulation. Greed comes naturally to us and we rapidly get bored if we always get what we want. Contrast is the source of happiness which is good news as it provides an alternative for the urge for more. By experiencing DIFFERENT pleasures instead of stronger ones we restore our enjoyment. So if you enjoy having friends round for dinner – don't invite them around for a bit. Instead, meet up with other friends and go to the cinema or go for a hike with them etc. After awhile the first pleasure can be repeated because the memory of the pleasure doesn't last that long. The trick is to experience pleasure by rotation.

## • DON'T GO IT ALONE!

Human beings are social animals - we ABSOLUTELY MUST have contact with other people. In the 13<sup>th</sup> century Frederick II of Sicily, in an attempt to learn how language develops, kept a group of small children in total isolation. They were given food, water and clothing i.e. all the things physically necessary for life, but they were not allowed to have any contact with other human beings. All of the children died – they could not survive without some form of social interaction. When we become anxious or depressed we often "shy away" from contact with other people. The thought of being in a group of people can feel intimidating and can cause us to "withdraw into ourselves", making us feel more anxious and depressed. We get into a vicious circle which can be very hard to break. The more lonely we feel the more down we feel about ourselves and the harder it becomes for us to interact with other people and make new friends.

How best then to break this cycle? Often we can feel self-conscious when we are in a group of people we don't know. We jump to conclusions - we start having thoughts like "they don't like me" or "they're judging me" and we never give them a chance to get to know us. At the start you are going to have to push yourself, but the more you do it the easier it becomes. A really good way to start things off is to join something like a club. If you have a particular interest in something do a search on the internet or your local library for clubs near to where you live. Otherwise try something completely new like a sports club aimed at beginners - badminton, ping pong, aerobics class etc- something that's going to be light-hearted where you can have a bit of fun and a laugh with other people. You'll be so busy concentrating on what you're doing when you are taking part, you won't have time to feel anxious or sad. Having fun and a laugh with other people in a non-threatening environment where you are all trying something new, is a really great way to BUILD SELF CONFIDENCE. The hardest step is often the first step - it's hard to push yourself to try something new but if you can make yourself do it- you're going to feel a whole lot better!

Probably the most important relationship in our life is the one with our partner. As predictors of happiness the most important is the quality of the relationship with one's partner, followed by frequency of sex and exercise, and the closeness of friendships. Considering how important the relationship with our partner is in making us happy – most of us spend SHOCKINGLY little time and effort AT WORKING at the relationship. It's crucial to make sure that our partner feels valued and appreciated – take them for granted, and we only shoot ourselves in the foot.

However it is better to be alone than in bad company. When a marriage is in trouble, the couple can often work through problems they are having, by remembering the qualities in their partner they originally fell in love with and recalling things that they both share in common and that they both still value. But sometimes, when the differences are so great that the problems cannot be resolved, it is better for the couple to go their separate ways, as the stress caused by being in such a relationship will make both people very unhappy. Some people are afraid to end such a relationship as they are afraid of being alone. How then to avoid the loneliness as a result? Savour the enjoyment of life's other pleasures – music, massages, good food. These natural mood lifters make us more sociable by dissolving the anxiety that so often makes us shrink from human contact– you will want to share your joy with others. It will also help you to find a new partner- there is nothing more attractive than a person who is happy in themselves.

For most people lasting love relationships give more warmth and a greater sense of security than friendships do. There is a biological reason for this – our brains release a chemical called oxytocin when we are in relationships that makes us feel good. This is backed up by surveys. 25% of unmarried people compared to 40% of married adults described themselves as “very satisfied”- findings that hold for both men and women. Although it is possible to be happy alone – it's much easier to be part of a team.

## • FEELING OF CONTROL

Few things make us quite as unhappy as the feeling that we are not in control over our own lives. A study of 10,000 government officials showed that workers who were lower down in the hierarchy were three times as likely to die compared to their bosses! The differences could not be explained in differences in wages – the differences between incomes amongst the civil servants were relatively small. What made the lower ranking officials more likely to die was the fact that they suffered more from stress, as they felt they didn't have a say in what was happening to them. They used phrases like “Other people make decisions about my work” or “I can't even decide for myself when to take a break.”

In another example, residents living in old age homes were encouraged to make decisions on what THEY wanted to do. They could choose what day trips they wanted to go on, and no longer were presented with their meals- but could choose from a menu. These small changes worked miracles: older people assumed greater responsibility for other aspects of their lives, got together more often, and in interviews expressed greater happiness. Amazingly their annual death rate more than HALVED!!!

So - if you are unhappy with something about your work, or if you think your child's school needs to be improved, join a union or a parent-teachers group- don't just accept that this is the way it has to be. Do something to make a difference and TAKE BACK CONTROL!

## • DRUGS ARE NEVER AN ESCAPE

People often use drugs as an escape from life's problems. There is no doubt that drugs have a very powerful affect on the brain. Levels of dopamine, the chemical released in the brain to give us the feeling of pleasure, more than doubles with alcohol intake, and trebles with nicotine and cocaine use. Drugs can trick the brain so that it is indifferent to loneliness, supplying it with dopamine that in social situations it would normally release on its own e.g. the lonely drinker who raises his dopamine levels with alcohol- doesn't need a friend. HOWEVER- with repeated use of the drug the brain develops a TOLERANCE for it- the same amount of drug no longer produces the same effect. The user is now in BIG trouble- no longer are they just using the drug to achieve a high, but they now NEED IT JUST TO FEEL NORMAL. They're hooked! An addict WILL BE an addict the rest of their life. The problem is that once the brain has learnt that a specific stimulus, like a drug, is associated with pleasure IT IS IMPOSSIBLE to unlearn it- its a bit like trying to unlearn English. The brain is now trained for life. Even a stimulus associated with that drug, like an ex-smoker walking into a smoky room, will be enough to trigger cravings for a cigarette years after they have given up. A person who has been an addict, can overcome their dependence on the drug, but they will have to work the rest of their lives at fighting their addiction.

Remember everything that we put into our bodies is a drug and has effects on our brain- be it chocolates/sweets/fatty foods/caffeine. Having a well balanced diet and avoiding excesses plays a big part in helping us to feel better. Caffeine- coffee as well as tea and fizzy drinks, can make people feel more “high strung” and should be reduced slowly, and cut out, if you are already feeling stressed out. Alcohol has its effects on the brain by depressing brain functions- i.e. it's a depressant in its own right and should be avoided if you are already feeling anxious/down. Often people who are depressed have trouble sleeping, and some people then use alcohol to get to sleep. The problem is the quality of the sleep after alcohol is often very poor and you don't wake up feeling properly refreshed. In the days before antidepressant medication was available, psychiatrists would prescribe high dose fish oil capsules to patients with low mood. Fish has long been known as a "brain food" - a portion of an oily fish such as salmon twice a week, can be helpful and is good for your heart.

For people with mild forms of depression/anxiety, antidepressants are no better than placebo in helping people feel better. For mild symptoms, lifestyle measures and psychological/talking therapies work best. In more severe forms of anxiety/depression, medications such as antidepressants can be helpful. The benefits/risks of starting medication should be discussed with your doctor. It is still VERY important if you are prescribed antidepressants that you still do all of the other things mentioned in this paper- it's important to ATTACK this from all fronts!

## • SOCIAL JUSTICE

Does having more make us happy? The answer is NO IT DOESN'T!  
What matters is EQUALITY

We might expect that countries which have the highest standard of living would also have the highest proportion of people who are happy. Only at the very bottom end of the income ladder does extra money lead to significant increases in happiness. If you are a single parent having to do a lot of overtime to make ends meet, small increases in income, allowing you to spend more time with the kids, will have a huge effect on happiness. But this effect of increased income and greater happiness, levels out at higher incomes. Indeed the level of satisfaction of the 50 richest Americans was barely more than average. It turns out that the happiest people are in countries with the smallest income spread. What makes people unhappy isn't having little but having less than others!

### **-Social equality**

A region of southern India called Kerala has one of the highest life expectancies in the world despite being one of the poorest. Unlike in many parts of the world where labourers earn low wages for working the land for landowners, in Kerala most people own their own land, and as a result have a secure income. They take pride in their communities and are proud of their traditions. With their own land, secure income and active village community they have more confidence in the future and suffer less with stress.

It can be tempting to be jealous of what other people have. While there are others who are worse off than ourselves e.g. the 19,000 children aged under 5 who according to the United Nations will die today because of largely preventable and treatable causes, there are also people who are better off than ourselves. The danger in comparing what we have to others, is that in doing so we can make ourselves stressed and very unhappy.

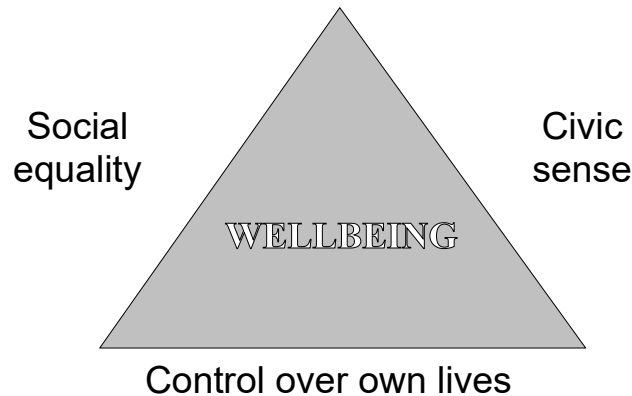
As way of an example it was noticed that a community of Italians who had all moved from the same region of Italy to Roseto Pennsylvania in the United States, were half as likely to suffer from heart disease as compared to the rest of the US. This couldn't be explained through differences in diet or genes – indeed they smoked a lot and their diet was very unhealthy. In those days you couldn't get olive oil in the US and they would fry their food in lard! What was different about this community is that they maintained the old traditions. They met each other for walks in the evenings, gathered for games in one of the many clubs, and celebrated in processions and festivals. Since envy is divisive, display of wealth was frowned upon. Although many families had attained some measure of prosperity it was impossible to distinguish rich from poor. But as Roseto became like the rest of America everything changed. People grew more prosperous and the community fell apart. After 1970 many young people left the town to study, returning with ideas different from those of their parents. They drove up in expensive cars, built big houses, dug swimming pools and fenced in their gardens. People retreated into their four walls and savoured their wealth. The more Roseto came to resemble the normal American small town, the more closely rates of illness and mortality approached the national average. As the close communal ties died, so did their protective power.

### **-Civic sense**

Its been shown, that out of various social activities, people get the greatest pleasure from their work as volunteers. They enjoyed getting to know like-minded people, seeing the results of their work, and gaining life experience. The only other thing which people rated as highly in making them happy, was the enjoyment they got from dancing- so put those dancing shoes on and grab a partner!

It has long been noted that when people work together towards common goals, they usually have better forms of government and this applies even to non political groups such as football clubs, parent teacher groups- you name it. Civic sense relies on trust. In such groups officials/politicians

know that abuse of power won't be tolerated and they are more likely to be honest from the start. Taking part in something and feeling you are making a difference is what makes us happy, as has been noticed in Switzerland- the happiest country in Europe, where residents who ACTIVELY participate in public decision making report being much happier than foreigners living in Switzerland who are not allowed to vote and change policy decisions. Turns out a happy country is one in which politics is more than just a spectator sport!



Let's finish off with a quote from someone, many people would regard as the guru of human happiness- the Buddhist monk the Dalai Lama. He has said that the secret to happiness is DETERMINATION, EFFORT, AND TIME! Changing the way you think isn't going to happen overnight. Reading this paper once isn't going to change your life and the way you think- the brain only learns through repetition- it's all down to PRACTICE, PRACTICE, PRACTICE!

When people become anxious or depressed they become preoccupied with THEMSELVES. They get locked into a endless circle of brooding- trying to get to the bottom of their own unhappiness. INSTEAD turn your attention outwards and become involved in what's happening around you. It will help you make new friends, and build your own self-confidence.

You will be amazed at how your life will change. Students who are happy learn more easily, and employees who are happy are more productive. THE BRAIN REALLY DOES RUN ON FUN.<sup>1</sup>

**HOPE YOU FEEL BETTER SOON!!!**



This document is also available online at: <http://medinfo.redirectme.net/happiness.pdf>

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<sup>1</sup> This paper is a summary of a book called "The Science of Happiness – How are Brains Make Us Happy – and What We Can Do to Get Happier" by Dr. Stefan Klein, PhD – ISBN 1 921215 14 3.