



## **How to be happy**

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Good evening, ladies and gentlemen. It gives me great pleasure to have been asked to deliver the third of my series of Gresham lectures. The title of this lecture this evening is “How to be happy”.

What I hope to do is reveal 4 or 5 secrets of happiness that modern psychological research has revealed to the academics but which may not be as widely known as they should be to the general public.

Harold Macmillan, a famous British Prime Minister from the 1960s, was attending a state event in France on the occasion of the retirement of Charles de Gaulle. He found himself sitting next to Madame de Gaulle, President de Gaulle’s wife. He turned to her and asked her what she was most looking forward to on the occasion of President de Gaulle’s retirement. She gave an answer that shocked and startled him. When asked what she was most looking forward to on President de Gaulle’s retirement, she replied, “A penis”. Macmillan decided it better not to pursue the conversation, so it was only later on reflection that he realised that what Madame de Gaulle was probably trying to say, through a very heavy French accent, was “Happiness”! Right there, I think you have the central problem with any discussion on happiness, which is that people often are not talking about exactly the same thing when they’re referring to happiness.

Psychologists, in attempting to measure happiness, have come up with some very interesting and important distinctions which I think it’s useful to think about when we talk about happiness.

The first distinction is that happiness probably varies along a spectrum of intensity, so that some people, if you measure their happiness levels on a spectrum of intensity, at the top end of the spectrum, are experiencing ecstatic euphoria, very intense happiness. Other people are very happy, and further down the spectrum, other people are what we may say suffering from mild contentment. If we were to measure the happiness levels of people in this room, we would find that spectrum. We’d find a group of people hopefully experiencing mild contentment, and a group of people experiencing ecstatic euphoria. Can I just say to the people experiencing ecstatic euphoria as I’m speaking that you really need to get out more?! Now, here’s the really interesting thing about those groups of people: if we were to re-measure their happiness levels, if you were all to come back and assemble here in a year’s time and re-measure the happiness levels, because psychologists are very interested in the structure and the stability of a measurement, here’s the really interesting finding. The group of people who were experiencing mild contentment are highly likely to be similarly mildly contented in a year’s time, whereas the people experiencing ecstatic euphoria are extremely unlikely to be experiencing that mood in a year’s time, and in fact, are much more likely to have plunged, mood-wise, into depression or even intense dis-phoria or depression. So in other words, one of the things we need to think about is the stability of a mood, and probably the people experiencing mild contentment in general are varying across a very small spectrum of mood, and often the people experiencing intense excitement and euphoria, for them, life is more of a rollercoaster ride in terms of the fluctuation of emotions they experience.

So at any one moment of sampling, it may well be that the people experiencing intense ecstasy and euphoria look as though they’re having a better time than the people experiencing mild contentment. The reality is, if you were to average mood over a year or over a longer period, the thing you should really aim for is mild contentment rather than intense ecstasy. There, right there, you have the first secret of happiness I want to reveal, which is that what you should aim for in life is mild contentment.

Now, as you can imagine, this is not a very exciting discovery as far as the media is concerned. We live in a culture that's much more interested in intense experiences, and so the idea that actually, if I was to publish a book on happiness, which I'm planning to do in the near future, my publisher is not very enthralled by the idea that the front of the book will say what you should be aiming for is mild contentment. It's difficult to think of politicians drumming up a mass of people, getting excited about mild contentment, and out there demonstrating on the streets. "What do we want?" "Mild contentment!" "When do we want it?" "Now!" It's difficult to think of advertisers flogging their products saying, "Use this face cream and you'll feel mildly contented,"; "Buy this car and it will make you mildly contented." So you can see that there's a problem in our culture which tends to reject this idea, but it's a very profound idea, that maybe we should be careful, and what you should aim for is mild contentment rather than intense ecstasy, yet there are many forces in our culture pushing us towards the idea that intense ecstasy is what we should aim for.

Another way of thinking about happiness is thinking about it in terms of what brings on different kinds of happinesses. There are certain happinesses which could be referred to by psychologists as the pleasurable, hedonistic aspect of happiness, which comes after a nice meal, a nice glass of wine, having a nice evening with someone, and for want of a better way of thinking or labelling it, I'm going to call that Level 1 Happiness, and that's the pleasurable, hedonistic aspect of happiness. There are several features we know about it: it's pretty reliable. We tend to reliably feel pretty content after a nice meal, after a nice glass of wine. It often can be fairly intense. But the problem with Level 1 Happiness, is that it tends to be very temporary. It tends not to last a long period of time. In fact, when psychologists have measured how long Level 1 Happiness lasts for, it tends to last for roughly around 15 minutes.

Now, let me introduce you to Level 2 Happiness, and I don't label Level 1 or Level 2 because I think one is superior to the other, I'm just labelling that way as a way of distinguishing them. Level 2 Happiness is the kind of happiness you feel which is more cognitive and intellectual after some achievement in your life that's taken a long time to get there. It's the kind of quiet satisfaction you feel when you think in a general sense about your life, the direction it's going in, and the kind of pride you feel in major achievements. That is a less intense experience than the Level 1 Happiness that we've been talking about. It's also fairly reliable, it's milder, but it tends to last a long time.

Now, let's think of some Level 2 Happinesses. One is if you're looking after a sick child and the child has got better, then that produces a lot of Level 2 Happiness. You don't enjoy looking after a sick child, it doesn't provide a lot of intense pleasure, but you derive a kind of pride and satisfaction from having done it which imparts Level 2 Happiness.

I found going to medical school a bit of a nightmare. I failed anatomy in the first year. I failed it so badly that the examiners began to laugh at some of the answers I was giving. They used to find them so funny because they were just so bizarre. They hand you little pots of organs in formaldehyde to identify, and my answers were so bizarre that they began to giggle, the examiners, and they began to nudge each other and say, "Give him this! Let's see what he says! Let's see what he says!" They were eventually rolling on the ground. At the end, they did this euphemistic thing of saying, "We think that you might benefit from looking at an anatomy textbook over the summer," which was code for "You've failed, and you're going to have to re-take." I didn't realise that's what they meant. I just said, "Oh, that's fine, you know, I'm very happy to look at an anatomy textbook over the summer!" I didn't know that meant I'd failed. So medical school for me was a bit of a nightmare, I was often scraping through exams, and as a result, it wasn't a very pleasant experience, but I got a lot of Level 2 Happiness from finally qualifying as a doctor.

So I want you to notice a couple of interesting things, which is that often Level 1 Happiness and Level 2 Happiness often can't be experienced at the same time. Often Level 2 Happiness involves a fair amount of discomfort, at the end of which you get a great deal of satisfaction for having accomplished something. If you're pursuing a lot of Level 1 Happiness, a lot of nice meals, a lot of glasses of wine, you won't get to achieve a lot of Level 2 Happiness, so there's a trade-off between the two. Similarly, if you're pursuing a lot of Level 2 Happiness, you commit yourself to a lot of goals, at the end of which you have to make a lot of sacrifices to achieve them, you won't derive a lot of Level 1 Happiness, so there's a trade-off between the two.

Here is happiness secret number two then: a big mistake that many people make is they tend to pursue one or the other. They pursue a lot of Level 1 Happiness to the exclusion of Level 2, or they pursue a lot of Level 2 Happiness to the exclusion of Level 1. I want to contend tonight that actually the secret to happiness or contentment in a general sense is the correct combination of both in our lives, to have a bit of Level 2 Happiness going on as well as the occasional amount of Level 1 Happiness, and it's the right

balance that is the secret to happiness.

Now, what's very interesting about a lot of people who've written about happiness, happiness intellectuals for want of a better word, people who have thought profoundly about human nature and human psychology and what the secret of happiness is, that many of these intellectuals have been happiness pessimists – they've actually been rather down on happiness. Let me give you a few examples.

Freud said: "One feels inclined to say that the intention that man should be happy is not included in the plan of creation." He also said, "The best that can be hoped for in life was the transformation of hysteric mystery into common unhappiness."

See if you can guess who said this: "The existentialists say at once that man is in anguish. Throughout the ages, the wisest of men have passed the same judgement of life: it is no good." Nietzsche.

"I don't know why we're here, but I'm pretty sure that it's not in order to enjoy ourselves." Wittgenstein.

"Today it is bad, and day by day, it will get worse, until at last the worst of all arrives." Schopenhauer.

"Man hands on misery to man. It deepens like a coastal shelf. Get out as early as you can and don't have any kids yourself." That was Philip Larkin.

So these are people who are really not very up on the idea that happiness is actually possible. Maybe one of the answers to that is they were pursuing too much Level 2 Happiness, they had set themselves a grand task that took a whole lifetime to accomplish, and they weren't having any Level 1 Happiness along the way. I'm not against people setting themselves grand goals, but you have to be able to stop and smell the flowers along the way, and maybe one of the reasons why so many intellectuals are happy pessimists is they had too much Level 2 contentment going on in their lives and not enough Level 1 Happiness. But actually, maybe they hit upon a deeper more profounder truth, which is that they had very low expectations of the possibility of happiness in their lives.

Maybe that's secret number 3 of happiness, which is not to expect too much of life. In fact, expectations are a key part of the current thinking psychologists have about happiness. They say that whether you're happy or not depends a lot on what you expect from life.

This is illustrated by a very interesting famous experiment in psychology, where psychologists measured the happiness levels of people who just won big money lottery prizes in the US of millions of dollars, and compared their happiness to people who'd experienced a very negative event, which was a car crash or something that had left them quadriplegic or paraplegic, paralysed from the neck down. It comes as no surprise to know that the happiness of the big money lottery winners was significantly higher than the people that experienced quadriplegia or paraplegia from car crashes, but 6 months later, when these people were followed up, low and behold, the happiness levels of the lottery winners was not statistically significantly higher than the happiness levels of the quadriplegics or paraplegics – a stunning result, very odd.

One theory as to what's going on here is the power of expectation. When you realise you're holding the \$5 million lottery ticket, at that moment of realisation, your expectations of the future of your life go up dramatically. You expect most of your problems to disappear. You think life's going to be fantastic. As you're pulled from the car wreckage and you realise that you are quadriplegic or paraplegic, your expectations of life go down dramatically. You think life is never going to be worth living again. Maybe as the months go by, your expectations don't map out as you thought life would. Maybe you discover that despite winning \$5 million, 3 or 4 months down the route, life is not as fantastic as you thought it was going to be. Maybe you discover that you have \$5 million but you've still got the tedious mother-in-law, you've still got the dreadful kids, etc. etc. In other words, a lot of things stay the same and don't change despite the big money win. Similarly, if you're a quadriplegic suddenly, maybe life does not pan out as badly as you thought it would, and that's why maybe, 6 months later, happiness levels are not that surprisingly different from what people thought they would be in terms of big money lottery winners or people who are involved in car crashes. So expectations may be a vital aspect of determining how happy you are.

This is illustrated by another really fascinating experiment done by a social psychologist. They set up a task where a group of people go and do some photocopying, and unbeknownst to these people, the experimenters have planted a 10c dime piece in the photocopier that these people unexpectedly discover. They didn't know this was part of the covert handling of the experiment. So half the people doing the photocopying task discover unexpectedly the 10c dime piece on the photocopier, and obviously get to keep it, and the other half don't make this unexpected discovery. Now, when these people are interviewed

shortly afterwards, not about their happiness at that moment, but about their overall contentment about their whole life for the last 20 or 30 years, here's a startling discovery: the people who've unexpectedly discovered the 10c dime piece significantly rate their overall contentment with life in general as much higher than the people who didn't make the unexpected discovery of the 10c dime piece! The public policy implications for governments are really rather major...and this could be one of the cheapest ways of raising the wellbeing of the public in general! But the point is it was the unexpectedness of the discovery that seemed to be key to raising their overall sense of wellbeing of their whole lifespan, and the problem is how do you generate unexpectedness in life as a way of raising people's happiness?

Daniel Gilbert, Professor of Psychology at Harvard University, went into this in more depth, and he's done some fascinating experiments looking at this issue of how good we are at predicting our future happiness, because he argues after all every major decision we make in life is predicated on an idea, a prediction, of how happy we think it's going to make us in the future. We make the decision to get married to someone, to buy a Ferrari, to move town, and every time we make that decision, we are making a prediction about the impact of doing that thing on our mood in general. So, he followed up a group of people – he interviewed them before key events happened in their lives, measured how they predicted how happy or sad the event was going to make them feel, and then after the event was over, he came back and re-interviewed them and measured how happy or sad the event really did make them. Low and behold, the astonishing discovery is that we are very bad at predicting how good or bad a future event is going to make us feel. We think having the Ferrari is going to make us feel very, very happy indeed, but when he re-interviewed you after you had the Ferrari, it actually didn't make you as happy as you thought it would. Similarly, when bad things happen to you and you thought you were going to feel really crestfallen and dreadful, like the loss of a job, when he came back and re-interviewed you, he found that actually the loss of job didn't make you feel as miserable as you thought it was going to make you feel.

Now, this has profound implications, because if we are notoriously bad at predicting how every decision is going to make us feel, then it calls into question the basis of every decision we make in our lives, and that maybe we need to re-think how we make decisions. There is an interesting theory though about why this might be, and this is about our focus. It's about the idea, going back to the point about expectations, that maybe what happens is we think the Ferrari is going to make us really feel much happier than it does because our focus at that moment is on the ownership of the Ferrari. We imagine driving the Ferrari, we imagine the neighbours looking enviously at the Ferrari, and because our focus is locked into the future ownership of the Ferrari, we forget a key point, which is that so much of the rest of our lives is going to remain unchanged. We still will have the miserable mother-in-law or the dreadful children, and it's an issue of focus.

Now, a lot of psychologists think that this issue of focus is very important and they argue that this may explain why people in the West might find it more difficult to achieve genuine happiness than people in the East, because people in the West tend to focus on one or two salient things in their environment, whereas people in the East tend to be much more aware of the general gestalt or the general context.

A famous experiment done that illustrates this is when you show people from the West an aquarium with fish in it and you ask them what do you see, they immediately mention the fish. When you show an aquarium with fish in it to people from the East, they tend to mention the aquarium, i.e. the background context, rather than specific things like the fish in the aquarium. So maybe our whole mindset about the way we think about life and our focus could be an issue, because if we're too locked on to one or two salient events and we forget to see that life and our general sense of wellbeing has a much wider context, that may illustrate our inability to correctly predict how we're going to feel in the future.

The problem though is that if we feel that to achieve genuine improvements and happiness is a lot more complicated than a simple thing like a job promotion, getting a Ferrari, marrying a better spouse, that maybe genuine changes in our mood are more complex, involve more massive shifts in our circumstances – we're going to have to change the mother-in-law, change the spouse, change the kids, change the job, change where we live. If all these changes are going to have to occur for our mood to actually change, then maybe it becomes too big a task, and maybe, as Gilbert suggests, it tends to lead to a state of kind of Zen indifference to the world, that maybe we shouldn't make any efforts to try and change our happiness levels because it's too major a task.

This is illustrated again by a very nice experiment that he mentions in his papers. Some Harvard undergraduate psychologists set up a biscuit tasting stall outside the department. To passers-by, it looks like a taste test, and they say to people, "We're doing a taste test. We want you to taste Biscuit A and tell

us whether you prefer it or not to Biscuit B.” They also say to the passers-by, “We don’t have any money to pay you for taking part in this taste test, but what we’re going to do to reward you for helping us out is we’re going to give you a bag of Biscuit A to take away with you.” So the other thing that people don’t know of course is Biscuit A and Biscuit B are absolutely identical, there is no difference, so any difference you detect in the taste of A or B has to come from somewhere else. Now you know you’re getting Biscuit A to take home with you, okay?

Separately to the experiment, later on, the happiness levels generally speaking are measured of the people who took part in the taste test. The fascinating finding is that the people who chose Biscuit A as tasting better than Biscuit B, and they’re taking away Biscuit A, a bag of Biscuit A, are rated as being significantly happier than the people who thought Biscuit B tasted better and knew they weren’t getting any Biscuit B to take away.

Now, what is the implication of the finding? Secret number 4 of happiness is that maybe happiness is about being content with what you have and not aspiring to what you don’t have, because that’s what the biscuit experiment seems to illustrate, that the people who thought, “Oh, I’m getting Biscuit A. I like Biscuit A” are happier than the people who say, “God, I’m stuck with Biscuit A, and Biscuit B was so much nicer!” The problem with that is about the idea that the central dilemma in life is do I try to change my life, do I try to make it different, and the danger of trying to make it different is if I’m disappointed in trying to make it different, does that mean I’m going to be more miserable at the end of it all? Maybe again one of the central conundrums in life is that, do I try to make a change, and maybe one of the arts in life is the ability to try to make a change, try to aspire to the biscuit that you’re not getting at the moment but you hope to get in the future, but to actually learn to be able to be content and not be too disappointed if you don’t end up getting the biscuit that you think might be better. There’s a constant flexibility and fluctuation between the desire for a difference but learning to be content with what you have.

Another reason why it might be difficult to achieve long-lasting happiness comes from psychology experiments on the idea that whether you are happy or not hasn’t got anything to do with your objective circumstances but to do with who or what you compare yourself with. There’s a lot of evidence that actually it doesn’t matter how objectively well you’re doing, it’s who you compare yourself with that determines how good you feel about your life. If you constantly compare yourself or your circumstances to people who you think are doing better than you, that upwardly directed comparison leaves you feeling miserable, even if you’re doing really well, but if you constantly compare yourself to people doing worse off than you, that makes you feel better.

There’s a lot of very interesting evidence about married couples, when they’re interviewed about how good they think their marriage is, that actually it’s who they compare their marriages with, in terms of other marriages, that determines how great they feel about their marriage.

There’s a very interesting experiment done by an American psychologist looking at the Olympic medal winners in the Barcelona Olympics to illustrate the power of this comparison process. They compared the happiness levels of silver medal winners with gold medal winners in the Olympics, and they found, lo and behold, that the bronze medal winners were happier than the silver medal winners, which is a very surprising result, because after all, objectively speaking, silver medals are a better thing to have than a bronze medal. One of the reasons why they chose Olympic medals is that there’s no way you can spin a medal result at a press conference later. There’s no way you can spin it that a silver medal is somehow better than a gold medal – it quite clearly isn’t. So we have an objective verification that one state is better than the other. So how come the bronze medal winners were happier than the silver medal winners? Well, the comparison process is invoked to explain what’s going on here. The bronze medal winners appeared to be comparing themselves with the rest of the field who didn’t get a medal, and because that was a downwardly directed comparison for the bronze medal winners, the key alternative outcome from their standpoint, they felt great about their medal. The silver medal winners appeared to be comparing themselves primarily with the people who got gold, and because that was an upwardly directed comparison, they felt miserable about their medal. So you need to be careful about who you compare yourself with.

But one of the interesting questions is what determines who we compare ourselves with? I could compare myself with Yehudi Menuhin, who’s a fantastic violin player, and I’m useless at the violin. How come I tend not to do that? What directs our comparison process?

Well, the interesting finding is about the idea that it’s a close shave that often determines who you compare yourself with. So the bronze medal winner feels it might have been a close shave to being a non-medal

winner, and that directs their attention and their focus and their comparison process. The power of the idea of the close shave is it leads us to the idea that it's not just other people who really exist that we might compare ourselves to, but imaginary other possibilities, and these are called counter-factuals in psychology – what else might have been? It looks like counter-factuals, what else might have been, dramatically determines how we feel about ourselves.

Let me illustrate that with an example. You're running to catch a train. You get to the train station, and you realise the train is actually there in the station. You run breathlessly onto the platform, and you're about to get on the train when the doors close in your face and the train goes out the station. You look at your watch, you have another half an hour wait for the next train. Compare that situation with you arrive at the train station, it's absolutely deserted and empty, you get onto the platform, it's absolutely deserted and empty, you look at your watch, you have half an hour for the next train. Objectively exactly the same situation, but the evidence is that if you arrive on the platform and the train doors close in your face and the train leaves the station, you feel much worse than when if you arrive on the platform you've got a half an hour's wait and the train is nowhere to be seen. The close shave, the what might have been – "I might have been on that train," as it leaves the station – makes you feel much worse.

Here's the other interesting thought then about that. For many people, who are doing very well in life and actually working very hard and achieving quite a lot, maybe life is a succession of close shaves. The paper the academic submitted got rejected and he thinks, "Oh, if only that paper had been accepted, then my life would be even better." Often when people are trying very hard, there's a succession of close shaves, and if you feel a succession of close shaves, often you might end up feeling much worse or miserable about your life than actually would be objectively required depending on if you were comparing yourself in another way. So that's another reason why happiness might be difficult to achieve, and maybe that means that we should think about who we compare ourselves with, and change the comparison process in order to actually influence our mood.

But is it possible that we can make these choices? Can we choose our expectations? Can we choose who we compare ourselves with?

There's another theory in psychology that actually mood has a biological basis and maybe therefore we can't make these choices. We know, for example, that happiness has a biological reality to it. We know that we can measure happiness. We can see which part of the brain lights up when people are happy, which incidentally is the left side of the prefrontal cortex, so that's the happiness centre. We also know that if you swab happy people's armpits and compare the swabs of unhappy people's armpits and get lay people to smell the swabs, they can accurately predict whose armpit they're smelling in terms of how happy they were. So happiness has a biological reality: happy people smell differently to unhappy people. That biological reality leads us to think that maybe there's an evolutionary purpose to happiness and to our moods and that could be quite important when we think about how to change the way we feel.

Well, it's pretty easy to see why there might be a biological purpose to happiness. We often feel happy doing all the sorts of things that our genes drive us to do because it helps propagate our genes – like after sex, after food, after comfort – so it makes sense that we're biologically wired to experience happiness.

This is where Aristotle, a Greek philosopher, whose thinking on happiness dominated thinking about happiness for two thousand years, may have gone slightly wrong. He said that happiness was the ultimate aim of life. He noticed that when you asked people, "Why did you do that? Why did you seek power, try to earn lots of money?" they always said, "I did it because it would make me happy." He said, "Well, if you ask people why they do stuff, they always come back to "I did it because I thought it would make me happy" as the ultimate answer." When you ask people, "Why do you pursue happiness?" they don't have another reason beyond that, other than the pursuit of happiness. They don't say, "I pursued happiness because I thought it would make me powerful or make me rich," so he thought that happiness was the ultimate aim of life. That actually dominated Western thinking about happiness as a view for at least two thousand years, until recently evolutionary psychology came along and said actually there is an ultimate purpose to life beyond happiness, which is the need to propagate our genes, and that's why happiness is there, it's biologically wired into our bodies, that's why we experience happiness.

Therefore we need to think about the negative emotions, like anxiety and stress and worry. Why is it we seem to be biologically predisposed to feel more negative emotions than positive emotions? Again, there's a very interesting theory about that.

Let's think about one of the commonest negative emotions, which is anxiety and fear, and at the extreme

end of anxiety and fear, panic. Anxiety leads us to avoid certain things that are dangerous in our environment. Because we feel anxious about the edges of cliffs or tigers bounding towards us, we avoid these things, and that means that genes that we have in our bodies that help us avoid these things survive to pass on those genes to other generations.

Panic is one of the most aversive forms of emotion, one of the nastiest forms of anxiety. Why do we have panic? When you have panic, your brain and body are telling you to get the hell away from that situation as rapidly as possible. The evolutionary purpose of panic is if a tiger is bounding towards you, rather than stopping to think and trying to work out what's going on, panic allows you to flee without thinking and saves your life.

Now, let's think about the sensitivity of the panic system. The panic system could be adjusted so that you only start to panic when the tiger is about 10 yards away from you. That system probably isn't going to survive for very long to pass on its genes.

And imagine a system that's much more sensitive, so that when the tiger is 1,000 yards away from you, you start to panic. That system's got a better chance of passing on its genes to future generations.

Let's imagine a system that hears the crack of a twig and thinks, "Ooh, is that a tiger?" and pays attention to the cracking of a twig. That system is likely again to survive, more so than a system that only starts to get active when the tiger is only 10 yards away. Imagine now that system has a lot of false positives. A lot of times the twig cracks and there is no tiger. Let's imagine that running away from the cracking of a twig when there is no tiger costs your body 200 calories. Let's imagine that being mauled by a tiger costs your body 20,000 calories, in terms of the length of time it takes you to repair yourself. What that would mean is that it is completely okay for your system to be so sensitive that for every 100 cracks of the twig, only one of them is a tiger. That system is going to survive, even though it's going to create a lot of anxiety in your bodies and a lot of the time there's going to be a lot of false negatives. A lot of the times, a twig is going to crack and there is no tiger. So actually it makes sense to experience a lot of negative emotion because it helps your genes survive. We call this the smoke alarm theory in evolutionary psychology.

You have a smoke alarm in your house because you want it to detect smoke so that you don't find yourself burning to death in your bed at night, but often your smoke alarm goes off because you're burning your toast in the morning. You tolerate a certain amount of burnt toast smoke alarms going off in order to save your life in the future. So that might explain why it makes sense to have a system which is primed towards negativity because people who aren't so happy, but are on the constant alert for danger and threat and the cracking of twigs, are people whose genes tend to be passed on in the future.

So I'm going to conclude with a thought, which is that, going back to Level 1 and Level 2 Happiness, one of the interesting paradoxes about happiness is that to achieve Level 2 Happiness, to achieve the quiet satisfaction of difficult goals that make you feel happy, you usually have to tolerate a huge amount of discomfort. There was a huge amount of discomfort for me involved in getting through medical school. So one of the central arts in life is to take a certain amount of Level 1 Happiness, to take pleasure from pleasurable things that are happening, but at the same time, the ability to tolerate discomfort is absolutely vital in long term happiness, and there's a paradox there, because the more we pursue pleasure, perhaps the more we think we can't tolerate discomfort, and the more we live in a culture that encourages us not to tolerate discomfort, but if you can take Level 1 and Level 2 Happiness, if you can enjoy life but tolerate discomfort, then that may be the secret to happiness.

Now, I want to close with the book written by Aldous Huxley, "Brave New World". Aldous Huxley in the 1932 novel "Brave New World" penned a chilling futuristic vision of an all-powerful state in which the masses are kept under control with a drug called soma, which banishes all unhappiness. Many have seen soma as a prophetic anticipation of Prozac. Liberal quantities of soma ensured that everybody is content, well behaved and free from any disruptively original or subversive thoughts. If anyone should feel a tinge of dissatisfaction or anxiety, they are told to take a gram of soma, which is said to have all the advantages of Christianity and alcohol but none of their defects.

Only one character in Huxley's novel, the savage, is recognisably human, and he claims the right to be unhappy. At the end of "Brave New World", the rebel, John, otherwise known as the savage, confronts the controller. Universal happiness, the controller admits, has been achieved by shifting the emphasis away from truth and beauty and towards comfort. Art and science have become impossible because they require challenge, skill and frustration. Happiness has got to be paid for somehow, and the guarantee of comfort requires losing other experiences that are part of being human.

Says the savage: "But I don't want comfort. I want God, I want poetry, I want real danger, I want freedom, I want goodness, I want sin."

"In fact," said Mustapha Mond, "you're claiming the right to be unhappy."

"All right then," said the savage defiantly, "I'm claiming the right to be unhappy."

Continues the controller: "Not to mention the right to grow old and ugly and impotent, the right to have syphilis and cancer, the right to have too little to eat, the right to be lousy, the right to live in constant apprehension of what may happen tomorrow, the right to catch typhoid, the right to be tortured by unspeakable pains of every kind."

There was a long silence. "I claim them all," said the savage at last.

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