The Science of Happiness and Wellbeing Prof. Priyadarshi Patnaik Department of Humanities and Social Sciences and Rekhi Centre of Excellence for the Science of Happiness Indian Institute of Technology - Kharagpur

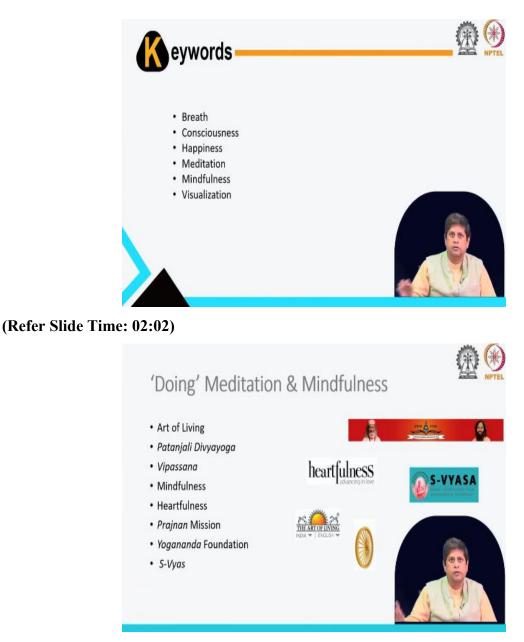
Lecture: 28 Meditation and Mindfulness: Practice Toolkit

Good evening friends. So today we are coming back again to meditation. But in the last session, we focused on the historical background, the context, the relevance, the scientific findings, which support the significance of meditation and mindfulness practices in the context of happiness and well being. And we also had an interaction with Dr. Saamdu Chatri who talked about mindfulness in the context of happiness. Today, we focus on the practice.

(Refer Slide Time: 01:13)



And when we talk about practice, what we mean is that we are going to cover some basic concepts and basic contexts within which practice of meditation takes place. And this will be followed by again a series of I would say, brief modules, which Dr. Chatri has kindly arranged to develop for us, especially for this program, where you see that a practitioner of mindfulness gives you a guided meditation sort of guided meditation module in fact, 2 of these, which you can practice on a daily basis. So that's why I call it toolkit. The entire focus today is on practice. **(Refer Slide Time: 01:59)**



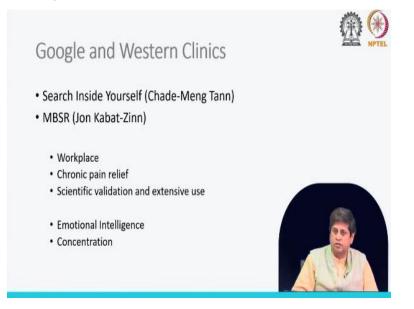
Now you see that. If you are focusing on the theory of meditation, the history of meditation, the relevance of meditation, which we covered in the last session, today if we start looking at the practice of meditation, or doing meditation, we find that there are a whole series of very valid meaningful and effective ways of doing practice. And I just indicate here a few of them, there are many more. And of course, we need to be careful of many others which are coming up which may not be so valid, may not have a rich tradition.

Whose effectiveness may not have been tested but here are a few, which are more or less known to be serious, systematic, exploration based on ancient traditions of India. Everybody is familiar

with the art of leaving school of thought and activities and their meditation, or Patanjali, which is very popular with its own school of doing meditation practices, specifically, the asanas and the hatha yoga tradition, the Vippasana Buddhist tradition, which focuses on meditation, in isolation, and in a state of being away from everybody.

Heartfulness another fairly well known tradition. Again Prajnan Mission, which focuses on kriya yoga, yoga nanda foundation, which again focuses on the kriya yoga tradition, as well as inspired by Swami Vivekananda. We earlier had and we have a lot of research papers on Transcendental Meditation. But as I said, with you, these are just a few of the many meaningful and successful traditions which have come up and which teach different varieties of meditations.

(Refer Slide Time: 04:01)



The thing is that if you are looking at 2 critical departures, or I would, I would call them departures. I would say that 2 critical points, where meditation and the tradition took off in the West, you have Mindfulness Based state stress reduction practice, proposed by Jon Kabat Zinn, well known researcher, and he actually popularized it in the context of the medical practice, especially for incurable diseases, especially for pain management, he developed this.

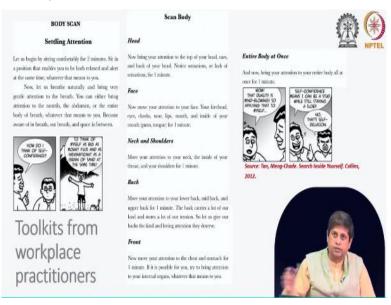
And you see that that made it acceptable in the West, that there is a tradition for which Western medicine does not have a treatment. And it actually works very strongly influenced by the

Buddhist mindfulness tradition, Buddhist meditation tradition. If you are looking at Chade Meng Tann and who currently is located in I think Singapore, and his very popular Book Search Inside Yourself, you get a brief history of how Google gave an opportunity to its people, including the technical people to explore innovation in a wide variety of ways.

And if you are looking at Chade Meng, you will find that he was focusing on his own experience with mindfulness meditation and wrote a delightful book, which made it very popular not only in Google culture, but in the workplace. So meditation at workplace is something which was made feasible by this significant work. So whether we are looking at workplace we are looking at chronic pain relief, we are looking at scientific validation and extensive use these work, and especially makes work very very meticulously focused on the scientific aspect of things.

In fact, Search Inside Yourself focuses in on primarily on why one should meditate, what are the scientific validations of the efficacy or effectiveness of meditation, and then, of course, the practice of it. And you find that there are 2 areas which get a little bit of emphasis from us, one of them is emotional intelligence. And the other one is concentration, both of these significantly enhanced by certain practices.

(Refer Slide Time: 06:35)



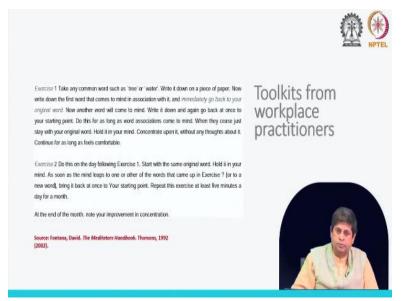
So, we will talk a little about this, in the next few slides, here directly from his book, I have kept for you one very simple technique, which is the body scan technique, and you can go through it,

and you can try it out on your own. So if you are looking at the body scan technique that he talks of, then you realize that it is a way of keeping your attention, maybe in a shifting way on different parts of your body. This is nothing new in many other places, you might be exposed to a technique which is pretty similar, but you find that you can do it on your own.

And the slide is available here for you. And you see that what are the implications of this on your mind and your physique? How do I think of self confidence, to think of myself as big as a mountain Fuji and as insignificant as a grain of sand at the same time, this apparent paradox being resolved within you is one of the important aims. In the context of meditation, we talked about it in the context of self identity, its relevance in the last session.

And then of course, by the cartoons, the comics he has designed here itself, he makes fun of it in the next set of images, illustrations that you see over here.

(Refer Slide Time: 08:02)

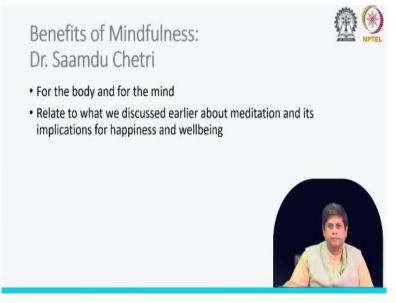


Take the example of David Fontana very popular book, the meditators handbook, which has gone through many editions he talks about the history and a rather more personalised account of his experience with meditation. From the perspective of a behavioral scientist, a psychologist who is experiencing it and trying to relate it for the western audience why is it relevant for us, because you see that our core understanding of many of our traditions, is very often indirectly, through an exposure to Western texts and Western books.

Very often, many of us are not even capable of understanding our own source texts, and get familiar with them through translations. Here are 2 examples. And both of them focus on techniques which one can use in order to enhance one's level of concentration with the examples that I am sharing with you the first exercise and the second and the third exercise, which are provided here have worked for people. And these are very simple exercises. In the first case, again concentration but shifting concentration.

And here if you are looking at the first once again concentration, shifting concentrates and back at one place. So you see that the ability to focus on a single thing without moving around away is a very, very tough job and that is what is discussed over here.

(Refer Slide Time: 09:36)



But my friends, the point I wanted to make is that if you remember a little earlier I said with you and in the last session I shared with you that it is better that you learn techniques from a practice scenario rather than from me who though maybe inducted into some of the meditation traditions. Having a little bit of exposure to experiments on meditation; I am no competent practitioner to talk about it. So here, you get an exposure about what is mindfulness very quickly from Dr Saamdu chetri.

Greetings of love and gratitude, I wish to also speak about the relevance of mindfulness. The relevance of mindfulness is meaning most advanced universities in the US, UK and Australia are using it for induction programs for new admissions. In fact, a decade ago, Oxford started a department of mindfulness. The British Parliament made a resolution in October 2016 that mindfulness becomes a practice for health, education and social justice.

Harvard has done many studies to prove that mindfulness can bring calmness and concentration focus, develops willpower and intelligence and reduces them in the amygdalla, which is the reptilian brain that triggers fear, anger, greed, hatred, jealousy, pride, all the negative emotions. One a 30 year old study by Dr. Elizabeth Blackburn proved that the tip of the telomere grows longer, so we age slower and live longer. Research by Mind and Life Institute over 2 decades by more than 20 scientists proved you can self cure diseases and illness with mindfulness practice.

Further, studies prove that blood pressure severe heart risks are lowered. And research on a 75 year old group of meditators and a group of 25 year old boys found the same functioning brains, but the non meditators of 75 year old had their brains reduced and holes were formed. They felt insecure, unsure, jittery, unhappy, and forgetful, as compared to the same group of young boys. Scientifically proven that the man called Dr. Matthew Ricard, the genetic scientist who turned monk was proven as the happiest person on planet earth.

After 12 years of research on his brain through EEG, and other methods of brain scanning. They found mindfulness produced an exceptionally large number of neurotransmitters that created happiness and changes were seen in the limbic cortex and other areas of the brain. mindful meditation rewires your brain for happiness as Dr. Ricard and other study proved that through mindfulness, the doors of happiness dopamine, oxytocin, serotonin, and endorphin are produced.

These 4 chemicals are called happy chemicals. Today, mindfulness has become a billion dollar industry in the west. It is an Indian product, and it is slowly returning to the guru land. This is paradoxical. Industries have found that mindfulness makes people more social, considerate, energetic, kind, compassionate, and most importantly, employees produce more, even if they

looked slower, and easygoing. When they are calm, their brains aperture opens, and they have more cognitive power to deduct in work.

The research has also proven that mindfulness increases the use of conscious mind over the benchmark of 5 percent and reduces subconscious automated use of mind called the autopilot. Does conscious use of mind makes a person brilliant, mindfulness happens to be the source of happiness. Why? Because when you are mindful, you are free from thoughts of the past and the future that occupies a large part of your conscious mind.

Mindfulness brings focus to the present, knowing that tomorrow will only be better if we did put us to and forward today. Mindfulness is to be fully aware of your own activities to be fully present in what you do. When you are mindful your actions will always be fulfilling and outcome excellent. Often bright thoughts come to you when you are taking a bath. Why? Because your mind is focused and connected with water only, and therefore, the aperture of your mind is broadened and free to bring in powerful thoughts and answers.

Mindfulness is not only sitting meditation, which is a small part, and 15 minutes of every day is enough after a certain amount of practice. Mindfulness is to be meditative all through the day, from waking to sleeping. You are in a meditative process called mindfulness when you are fully present in what you do, whether thinking, washing clothes, or a plate, eating, drinking, walking, cycling or playing, both mentally and physically being present in what you are doing is mindfulness.

You can immediately be calm by just listening to your breathing. You can control your anger, worry, anxiety, stress through mindful practices. There are mainly 5 steps to mindfulness. First is listening and being aware of breathing. Second is concentration which can be done through versus visualisation, music, gazing, chanting prayers and some spiritual practices, such as giving gratitude, love or service with compassion.

The third one is to be aware of the body. The fourth practice is relaxing tensions, and the fifth one mindful movements, recruitment in jobs is becoming more focused on social and emotional learning, they realized the working skills can be developed. But if an interviewee does not come with self awareness, social awareness and self management, she he may not stand a chance in the organization. However, all this can be developed through mindful practices.

One can eliminate anger, worry, anxiety and hatred, jealousy, pride and others, including delusion and dilemma, just by being mindful, however, knowing is not enough. It has to be made a habit. It is like learning to ride a cycle, or drive a car after a while you do not think about how you are cycling or driving. You only have a destination in mind, and you just do it. This is what the subconscious drives you. And your conscious mind is busy looking around, observing, judging, questioning, evaluating and assessing.

You can change your genetics to epigenetics by being mindful, the body believes or the mind says thoughts create us and if one is mindful, the right thoughts come to us and we become better human beings. If you are in control of your mind, you are in control of your existence. It is the mind that can take to the wings of imagination, and make you another Einstein. So kindly learn mindfulness be present in what you think or do. Thank you for sharing your time with me.

I hope you enjoyed the last brief interaction. But that is not all. Dr Chetri goes on further, to emphasise why mindfulness is so significant in today's world. And he has given talks he has done practices across the world in various parts of Europe, the US and even other Latin American countries. And why is it so popular? And why is it so relevant? So here he gives you an ability, he gives you a little bit of understanding of how it is relevant for the body, how it is relevant for the mind.

And many of the points he makes are also points we discussed in the earlier session when we talked about meditation, as from historical perspective and a scientific perspective. So let us hear what he has to say about it. Greetings of love and gratitude, I wish to also speak about the relevance of mindfulness. The relevance of mindfulness is meaning most advanced universities in the US, UK and Australia are using it for induction programs for new admissions. In fact, a decade ago, Oxford started a department of mindfulness.

The British Parliament made a resolution in October 2016 that mindfulness becomes a practice for health, education and social justice. Harvard has done many studies to prove that mindfulness can bring calmness and concentration focus, develops willpower in intelligence and reduces them in the amygdalla, which is the reptilian brain that triggers fear, anger, greed, hatred, jealousy, pride. With all the negative emotions, one, a 30 year old study by Dr. Elizabeth Blackburn proved that the tip of the telomere grows longer, so we age slower and live longer.

Research by Mind and Life Institute over two decades by more than 20 scientists proved you can self cure diseases and illness with mindfulness practice. Further, studies prove that blood pressure severe heart risks are lowered. And research on a 75 year old group of meditators and a group of 25 year old boys found the same functioning brains, but the non meditators of 75 year old had their brains reduced and holes were formed. They felt insecure, unsure, jittery, unhappy, and forgetful, as compared to the same group of young boys.

Scientifically proven that the man called Dr. Matthew Ricard, the genetic scientist who turned monk was proven as the happiest person on planet earth. After 12 years of research on his brain through EEG, and other methods of brain scanning. They found mindfulness produced an exceptionally large number of neurotransmitters that created happiness, and changes were seen in the limbic cortex, and other areas of the brain. Mindful meditation rewires your brain for happiness as Dr. Ricard.

And other study proved that through mindfulness, the doors of happiness dopamine, oxytocin, serotonin, and endorphin are produced. These 4 chemicals are called Happy chemicals. Today, mindfulness has become a billion dollar industry in the west. It is an Indian product, and it is slowly returning to the guru land. This is paradoxical industries have found that mindfulness makes people more social, considerate, energetic, kind, compassionate, and most importantly, employees produce more, even if they looked slower, and easygoing.

When they are calm, their brains aperture opens, and they have more cognitive power to deduct in work. The research has also proven that mindfulness increases the use of conscious mind over the benchmark of 5 percent and reduces subconscious automated use of mind called the autopilot. Does conscious use of mind makes a person brilliant, mindfulness happens to be the source of happiness. Why? Because when you're mindful, you are free from thoughts of the past and the future that occupies a large part of your conscious mind.

Mindfulness brings focus to the present, knowing that tomorrow will only be better if we did put a stone forward today. Mindfulness is to be fully aware of your own activities to be fully present in what you do when you are mindful. Your actions will always be fulfilling and outcome excellent. Often, bright thoughts come to you when you are taking a bath. Why? Because your mind is focused and connected with water only. And therefore, the aperture of your mind is broadened and free to bring in powerful thoughts and answers.

Mindfulness is not only sitting meditation, which is a small part, and 15 minutes of every day is enough after a certain amount of practice. Mindfulness is to be meditative, all through the day, from waking to sleeping. You are in a meditative process called mindfulness. When you are fully present in what you do, whether thinking washing clothes, or a plate. Eating, drinking, walking, cycling or playing, both mentally and physically being present in what you are doing is mindfulness.

You can immediately be calm by just listening to your breathing. You can control your anger, worry, anxiety, stress, through mindful practices. There are mainly 5 steps to mindfulness. First is listening and being aware of breathing. Second is concentration which can be done through verses visualization music, gazing, chanting prayers and some spiritual practices, such as giving gratitude, love or service with compassion. The third one is to be aware of the body.

The fourth practice is relaxing tensions, and the fifth one mindful movements. Recruitment in jobs is becoming more focused on social and emotional learning, they realized the working skills can be developed. But if an interviewee does not come with self awareness, social awareness and self management, she he may not stand a chance in the organization. However, all these can be developed from Mindful practices.

One can eliminate anger, worry, anxiety and hatred, jealousy, pride and others, including ignorance, delusion, and dilemma, just by being mindful, however, knowing is not enough. It has to be made a habit. It is like learning to ride a cycle, or drive a car after a while, you do not think about how you are cycling or driving. You only have a destination in mind, and you just do it. This is what the subconscious drives you. And your conscious mind is busy looking around, observing, judging, questioning, evaluating and assessing.

You can change your genetics to epigenetics by being mindful, the body believes or the mind says, thoughts create us. And if one is mindful, the right thoughts come to us, and we become better human beings. If you are in control of your mind, you are in control of your existence. It is the mind that can take to the wings of imagination and make you another Einstein. So kindly learn mindfulness be present in what you think or do. Thank you for sharing your time with me. **(Refer Slide Time: 26:48)**



I hope by now you have developed an understanding of the relevance of the practices that he is talking about. But it is great if you can actually get a couple of practices which you can actually do in your daily lives. Here is a very short 7 minute practice which is something which I gave you in some kind of theoretical form a little earlier. When I talked about the I gave you the example from Ming's book. Right now here you have an opportunity of direct guided meditation of the same by Dr. Chetri. So, let us see how he takes it forward.

Namaskar greeting of love and gratitude. Let us start a mixed mode, mindfulness practice, touching body and senses. This will help you to be not only calm but well physically and mentally. It will help you to reduce your anxiety and stress. If you have insomnia, the awareness of the body, starting at the toes and attributing to their function, being grateful to them and stating that my eyes are getting heavier and I am falling asleep.

By doing this, going to the soles, ankles heels, continuing upwards, touching every part of your body with attribute gratitude and the statement of heavy eyes and falling asleep. You will have fallen asleep and the quality of your sleep will be excellent. Now, please listen to the bell and to me. Breathe deeply in, feel the calmness of your mind and slowly breathe out. Feel the relaxation of your body. Continue one more time. One more time.

Now sit comfortably in your chairs or on the floor and your eyes closed with your hands resting on your thighs, preferably with palm upwards or in meditation mudra whichever way shoulders must be relaxed. Feet grounded. If on the chair. Head straight. With chin slightly tucked in. Neck locked to your vertebra low back erect without stress or strain tongue touching the upper palate lightning lips closed and teeth not biting.

Continue breathing normally and listen to your breathing. Realise that your heart is filled with love. Your mind is at peace and your body is relaxed. Take your thoughts to your legs wriggle your toes, feel the suppleness of your soles. Raise your toes and feel the rotation of your ankles and the resting of your heels. Thank these feet for tirelessly helping you stand and walk on them since you stood on them from the childhood. Ask the 2 feet to be relaxed and calm and take your thoughts to your calf muscles, knees and thighs. Ask them to relax. Be grateful to them. Thank the 2 beautiful legs for being there for us to play climb cycle drive run and walk to the places of desire and asked them to be calm and relaxed completely. Take your thoughts to your lower back where our growth began. And thank you for connecting the upper and the lower part of the body a pivotal role in the body function ask it to be calm and relaxed.

Take your thoughts to the internal parts guts, colons, livers, lungs, kidneys, pancreas, bile, and others that help you in metabolism. cleansing and cleaning, detoxifying. And helping us bring

energy to every cell in our body. Take your thoughts to your shoulders. That gives you push, be grateful for it. Take your thoughts to your hands that helped you to hold carry embrace, play, cycle drive work, eat, receive and most importantly give thank this beautiful limbs and ask them to relax and be calm.

Take your thoughts to neck, feel it relaxed. And thank you for connecting head and body and being able to rotate to sit around. Take your thoughts to your face and visualize in front of you. On your right behind you on the left and again in front. Now think of your nose to smell the fragrance of your space around without judgement. Take your thoughts to an open part of your body. And feel the gentle breeze on your bare skin.

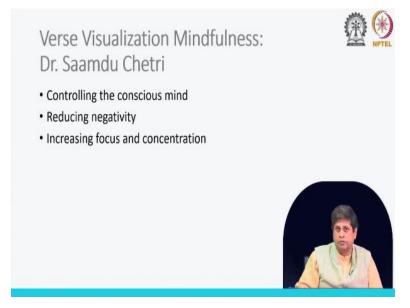
Feel the freshness take your thoughts to your ears. And now hear the sound around you without judgement. If you have produced some saliva in your mouth, gently swallow and feel the taste of it. Take your thoughts to your brains and ask the left and the right hemispheres to work in great harmony for you to be in peace, calmness, and in high intelligence, eliminating you from darkness and ignorance. Thank the brains. Take your thoughts to your heart.

And thank this wonderful machine for making you the person you are with love, kindness and compassion making you a true human being. Have reverence of your species around without judgment. Take your thoughts to an open part of your body. And feel the gentle breeze on your skin. Feel the freshness take your thoughts to your ears. And now, hear the sound around you without judgment. If you have produced some saliva in your mouth, gently swallow and feel the taste of it. Take your thoughts to your brains.

And ask the left and the right hemispheres to work in great harmony for you to be in peace, calmness, and in high intelligence, eliminating you from darkness and ignorance. Tank the brains take your thoughts to your heart and tank this wonderful machine for making you the person you are with love, kindness and compassion, making you a true human being. Keep your eyes closed. Now gently made moments. If you are sitting, stretch your legs, start to massage them. Or continue listening to your breathing, eyes still closed rub your palms.

And once they are warm, put them against your closed eyes. And gently begin to open your eyes and hold them halfway. And continue to listen to your breathing in and out. And once you're really opening your eyes, fill with love and compassion may love joy and peace in you always thank you for your time.

(Refer Slide Time: 35:13)



I hope that the actual voice the bells make a significant difference. And it actually helps you to concentrate more than what is written in my book. But here is a slightly advanced and a different practice. And this practice is verse visualization mindfulness that Dr Chetri talks about where he focuses on the benefits and he says that it will help you control the conscious mind which is again about the attention, concentration, reduce negativity which is what all our focus in this course is all about.

And increase focus and concentration and that is going to be beneficial for any kind of workplace context that we talk about. So let us go through this guided meditation By Dr. Chetri Greetings of love and gratitude. We will do a short verses and visualization mindfulness meditation. This will help you calm your senses and open your minds aperture for the conscious mind to take control of your activities, which otherwise is on autopilot.

It will help you reduce negativity and give rise to greatness with focus and concentration. Please listen to the bell and to sit in a meditative posture with your eyes closed and body relaxed body,

mind and speech in perfect oneness. I send my heart to all my loved ones and wish them may you be well and happy. May you be free from fear and any suffering. May you transcend the path of anxiety and sorrow. May you be loved and cared, may you be fulfilled and compassionate. And may you be well and happy.

Breath in with calmness. Breathe out with a smile on your face. Breathe in with calmness in your mind. And breathe out with a smile on your face. Now visualize that you are walking from your home before the dawn to a lake in nearby mountains that is filled with colorful lotus and lilies. As you are walking to the lake, the Dawn creeps, and pure mountain air greets your face with gentleness, freshness, purity, and brings you alive. It is refreshing and reliving. As you arrive at it you will find it very calming, with a pristine breeze.

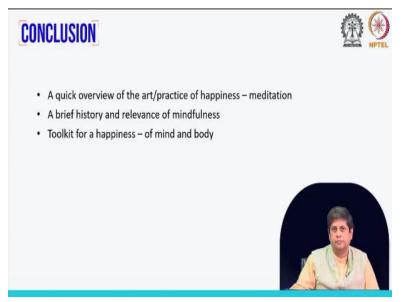
And the freshness brings love, joy, peace and bliss to you. You calmly sit in front of the lake on a bench watching the lake. The dawn is breaking and begin to see the sun peeping from the mountains. And the first few rays of the sun, fall on the lake. Morning dues resting on the lotus petals, begin to glitter, bringing out all the beautiful colors of all seeds, and you feel fresh, like the dues integrated and pure. Breathing in, you feel pure, like the morning dew, the lotus flowers look serene, having struggled to the depth of the leaf, through the dirt mud and laboring all the way above the waters and now they rest on the water looking beautiful, as eternal and overpowering and encompassing all the splendor. Similarly, you have fought all the negative emotions and come above the negativity making you peaceful calm, full of energy and willpower. Brilliant and intelligent breathing out you feel magnificient like the lotus flower itself. Breathing in feel pure like the breathing feel magnificent like lotus flowers in pure out magnificent.

If your mind is floated away, gently bring back to breathing in pure and breathing out magnificient. Breathing in you feel robust like the lotus and breathing out you feel blissful, like the waters in the calm setting in robust out blissful. If your mind has wandered away gently remind it to come back to breathing, robust and breathing out peaceful. As you are feeling pure and blissful, you will see a figure arising out of the lake in form of the water, but sparkling with colors due to the rays of the sun shining on the figure.

The figure of one nice looks at you with gentleness, love, compassion, and blesses you. Granting all your wishes come true and gently lowers itself and vanishes into the lake. Filled with happiness and a high level of positive energy. You gently stand up and begin to walk back to where you began your journey this morning. Continue to breathe in, in peace breathe and out in bliss in peaceful out blissful.

Keep your eyes closed and start to make movements of your body if you are sitting on the floor, stretch your legs and start to massage them. Start to rub your hands. And when they are warm, you gently put on your closed eyes. Open your eyes halfway, hold them there, continue to breathe in peaceful, breathe out peaceful. And when you are ready, you can completely open them, filled with love and compassion may love joy and peace in you always. Thank you for your time.

(Refer Slide Time: 43:33)



I hope you enjoyed this session. And I hope that it is going to be relevant for you in the days to come. I hope and we will try to do a survey to find out if you have been practicing some of the tools and techniques that we shared today with you. And this video is available and you can do it every day if you wish. So with this quick overview a brief history and a small toolkit that I have shared with you. I hope that it is going to make a practical difference in a course which is primarily focused on the science of happiness.

(Refer Slide Time: 44:10)



So the references to the books are over here. I hope you will enjoy going through them. Thank you very much