The Science of Happiness and Wellbeing
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Lecture - 30
Can We Really not be Creative and Happy?

Morning friends, I hope to a certain extent where you were convinced by the last session where we talked about creativity and happiness. And we brought into other concepts, the concept of flow and the concept of intuition. Now, I also hope that we had shared in a video, a set of video clips as appendix where different viewpoints of different students and scholars, very much like you talking about different aspects of happiness was shared with you. And I hope that you enjoyed that that gave you some insights as well.

What is it that we are going to focus on today, in the last talk; we said that creativity is not something which is exclusive to only a group of people like happiness is available to everybody. Creativity is probably something which is available to everybody, we have to enlarge the definition of creativity.

And that means that something which is not defined, but which is there in the background is that creativity is something which is maybe unique, and whatever else, we will look at the definition. But also, it is something which is recognized as important by other people. Now, this is the catch, the moment we talk about that, we are taking a narrow definition of creativity, and that is where we fail.

As I told you, in the last session, creativity can happen everywhere, in very small things. And if we appreciate our own creativity, and others creativity in those small things, we can be happy. We have already made a connection between creativity and happiness in the sense that when we are extremely happy, excited and charged, we are creative; we may start making connections. Without thinking that brings in intuition, we move into a flow state, we are able to do things which we enjoy the very act of doing those things we enjoy.

But then one of the other components, which I touched upon, is the fact that we have to solve a lot of problems. We have to present things in new ways. And there is a reason why we need to present things in new ways because that in itself gives us delight, but it is something which

is acceptable to others. It brings in a variety, a change and excitement. And at the end of the day, it is something which is satisfying.

So the recap, I have done already the creativity concepts. I have already said insights of our daily lives through different vignettes of conversations with some people who are both artists, so called creative people and other people as well. Today, we are going to focus on practicing creativity, and how we can actually apply it to study and work. prints, I have a challenge here in the sense that many of the things that I have been talking about are best done as activities.

So one of them will take up as a case study as an activity. And then I will show you kind of a demo of that activity. But I know that if we actually put it as an activity as an assignment, small assignment as an activity as a group activity, maybe that is something which we are working on with our TA's. Then it would be a fun kind of a thing and you would gain insights into your own experiences of creativity.

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So what is it that we are going to focus on? Recap what is creativity out of the box? When we talk about out of the box, we are talking about intuition. Use of imagination, unique new ideas translated into reality. Normal viewed differently, turning the ordinary into extraordinary, invention, friends here we are not focusing on the flow, the act of creation. Here in this definition, we are focusing on the product.

The product is the goal, bring something new, the act of creation is a process. The outcome is irrelevant to the others, the process and the outcome are irrelevant to us. The process makes it enjoyable, the outcome which satisfies others, also satisfies ourselves makes us happy. So it is a double credit for us that we are have we are delighted both with the process as well as the outcome.

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But the point is that, how do we go about doing that? We have a very, I would say narrow understanding of a concept of left brain and right brain. But we will start with that, left brain and right brain here are being used symbolically. Whenever any activity takes place in the brain, the whole brain is activated. But it is true that certain regions are more activated, connected in specific ways with certain other regions.

So when we are talking about left brain and right brain we might vaguely say that certain regions of the left to the right side are part of the brain are more activated, and connected in unique ways with the other parts of the brain. But symbolically, what does it mean? What we are looking at, on the left side, our left brain activities and whatever we are looking at on the right side, our right brain activities.

In other words, one of them deals with what is known as cognitively rational, realistically logically oriented thinking. And the other one is linked to the concept of futuristic thinking. Daniel Kahneman talks about the significance the great significance of heuristic thinking, in

his book Thinking Fast and Slow. If you are interested, you can refer to that. And we will share the link where you can maybe buy the book or read a little about it.

But the fundamental focus, which we had in the last session was on heuristic thinking, which is intuitive thinking. And depending on the intuitive depending on the unconscious, depending on the ability to make sense out of chaos disorder, depending on breaking the rigid boundaries of norms, moving beyond thinking unconventionally, and focusing on the right brain.

This is a methodology, a methodology, which we have been asked to unlearn right from our childhood, the moment a child is born, he or she starts thinking very, very randomly. And the necessities of survival makes it relevant for the child to focus. So to a very great extent, our focused thinking our rationalisation and our causality, our connecting one thing to the other, all of these are determined by our survival that is one part of it.

But then, fast forward a couple of 1000 years or maybe a couple of 100,000 years. And we are in a civilized society, where probably the heuristic thinking is something that again needs to come into play. Probably we have over emphasized the left brain kind of thinking that we were talking about.

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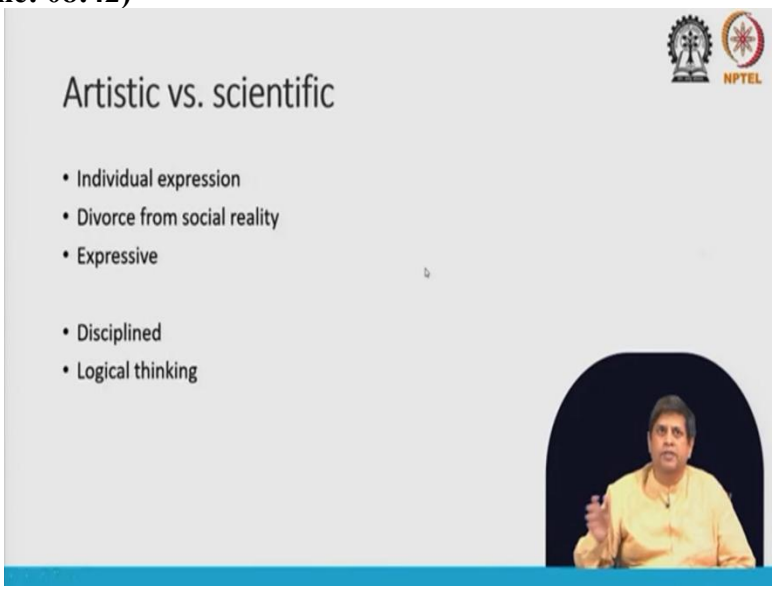

What do we exactly mean? So if we are looking at an artistic versus scientific approach to things, we find that the artistic will be individual expression, very often divorced from social reaity expressive, the scientific when we consider discipline a logical thinking, but both the

thinking processes are very much a part of life. If you reflect on your dreams, then you realize that dreams are a place where a non-logical kind of process of thinking understanding experience goes on.

And when we they make very much sense in that particular phase, but the moment we wake up, we start finding it amusing, abstract strange that certain abnormal kinds of connections were being made. But mind use some of the best insights for many scientists have also come in the form of dreams or symbolic objects in dreams.

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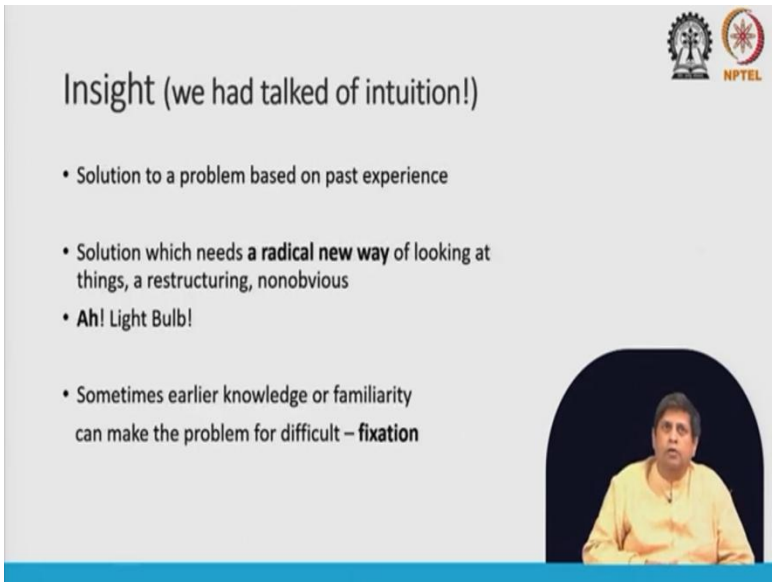

Now, how do we talk about different new ways of thinking? Is it something which is not available to us? Now I would be referring into Edward de Bono, and to many of the other innovative practices. But he is one of the primary founding fathers who took it up. And if you are looking at that, you find that he gives the example of making a journey of life. And I sometimes talk or talk to my students about making a journey.

So that when you come from your halls of residence, your hostels, to your classroom, how do you come? The majority of them have found out the shortest route, they come by the shortest route. But then you see that, for some of them, they are more exploratory in nature, they start exploring different routes. For the person who is following this artist to the destination is significant.

For the people who are not following the shortest route every time trying out different routes, the exploration the journey is more significant. And when you start taking these new journeys, new discoveries, new things, new insights, new experiences. So not only is the product that is the destination rewarding, but the process of coming to the product is also equally rewarding.

And we learned a lot of new things in the process, start making new connections in the process, develop new insights in the process. Mathematical thinking asks us to come to a solution. Engineering, thinking asks us to optimize the solution, the shortest, the less least energetic energy consuming way to reach the solution. But heuristic thinking tells us that we can reach the solution by 5, 10, 15, 20 different ways.

And none of these ways of arriving at a solution is actually a waste of our time. Why? Because we gain new insights, we find new connectivities.

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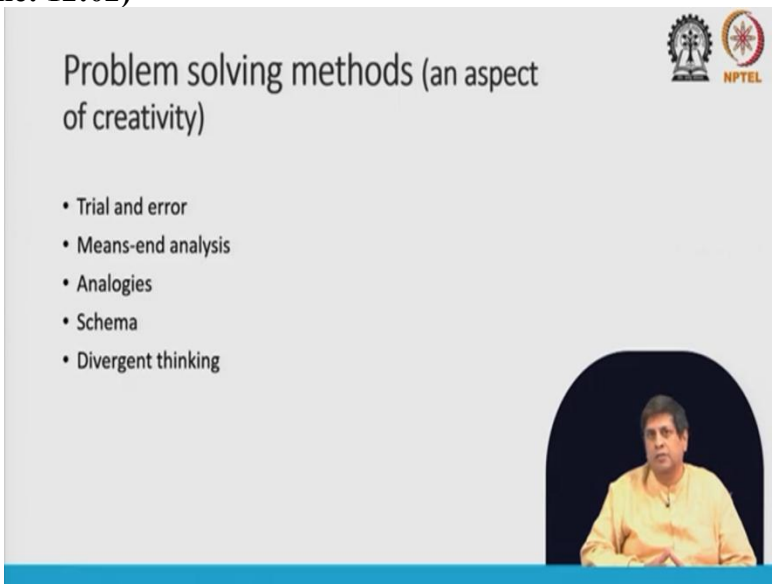

So as I told you, in the last session, we are going to focus on problem solving. And there are a number of problem solving methods that are available to us. What is it that I am going to do in this session, which is a fairly short session, and to provide you with a toolkit. And I am going to assure you that if you start using this toolkit, you will come up with new ideas. Because friends, the major challenge is generating new ideas, number 1, and making new connections.

Imagine that throughout our lives, we have been told to finish things quickly. Finish things in time, solve a problem, which has only 1 solution, all analytical convergent thinking. It is probably in some art colleges and some of the other places very rarely that people are told that come up with new ideas, come up with try to identify problems, rather than identifying solutions. Now, this is something unfortunately, that we are not taught.

And the moment we work, walk into our lives and walk into our workplaces. These problems come up that divergent thinking is something which becomes relevant, but we have not been taught. In the last session, we talked about intuition, being very relevant in our lives. And the last session, we also talked about the fact that creativity is very relevant in our lives. And in the last lesson, we also realize that the moment we walk into education, reading, studies or into work, we are faced with problems.

And we have to solve these problems. Friends, when we are with negative emotions, problem solving is an ordeal, it is a nightmare. We solve the problem, but it is always against deadlines against a sense of anxiety. But can we not make problem solving a positive process? The environment may not be conducive, we might have those challenges, but its right because if we do that, then the entire process of work becomes happy.

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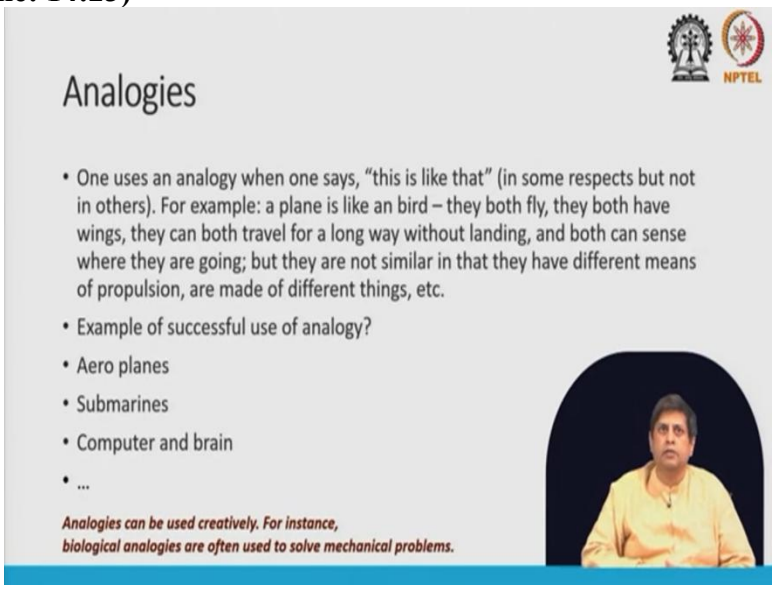

I am giving you a couple of examples so as I told you, I will be talking about toolkits analogies toolkit 1. So what is it we are talking about when we are talking about analogies? Analogies are comparisons, comparisons between what? Comparisons between 2 systems,

which are very, very different, but have certain degrees of resemblances in it anytime we make comparisons between 2 things.

The very concept of comparison means that there are similarities and differences. If you are looking at the whole process of innovation that has taken place in this world analogies, especially in the context of scientific innovations, plays a very, very significant role. If you are talking about, let us say, aeroplanes, we are talking about submarines. If you are talking about these 2 examples, very clear analogies of birds and fish.

We have borrowed a lot of ideas, a lot of concepts from these 2 animals in the building of our mechanical models, or aeroplanes, rockets, or submarines, or floating even the birds, the floating birds, for our ships. You see that the significant progress that we have been able to make in cognitive science today is based on the concept of mutual borrowing of ideas from both these fields, we talk about neural networks.

But network is not a concept, which is biologically driven. It is a computer science driven, it is a social science driven concept. In a similar way, we take analogies from the brain, in order to explain certain things about computers, we take analogies from the computer in order to explain certain things about the brain, or to understand brain in a more meaningful way. So there are a number of possible examples where analogies have been used. So the question is that, can we use analogies creatively?

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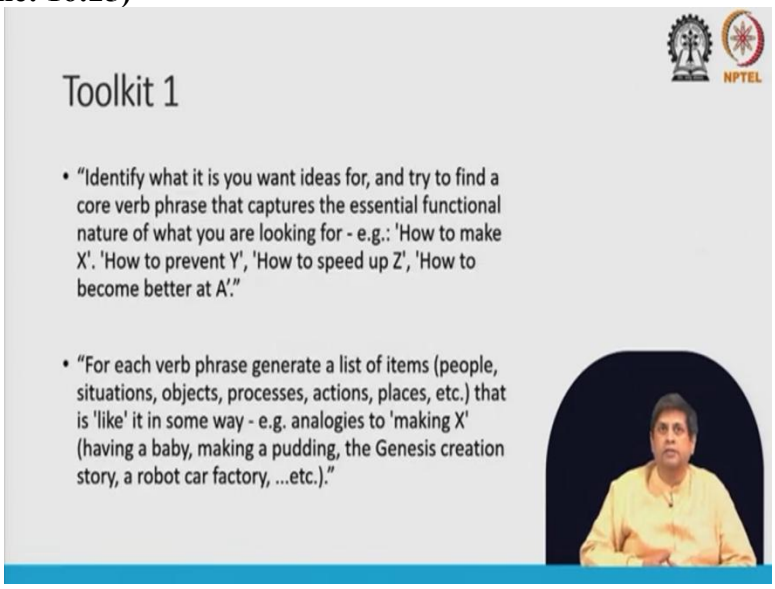

So, here is a toolkit and as I told you, I do not have enough time to actually demonstrate many of them. So you can take 2 disparate ideas, identify what it is, you want, ideas for and try to find a core verb phrase that captures the essential functioning, how to make X? Or how to prevent Y? How to speed up Z? How to become better at A? For each of the verb phrases, generate a list of items, people situations, object processes, accents, places, that is like that in some way.

Like analogies to making X, making a pudding, the genesis creation story, robot car factory, start making combination of these analogies 2 very, very different things, which in some way are linked with one another. And then from one system, try to find a connection to the other system. This is one method and you will find many such methods available to you. So what exactly would you be doing?

So let us say that, how to make a house, you take the analogy of something like something which is very, very different, but also linked in certain ways. So I will give you give you this problem. So, how to make a beautiful house? And you say that, I am going to use the analogy of a tourist destination, a beautiful tourist destination, let us say Goa I leave it at that. Suddenly, you start finding trying to find connections between the 2, a beautiful house can be beautiful, Goa can be beautiful.

What are the list of items which makes Goa a beautiful, start making a list of that, when you say that, how can they be related to the concept of a house, you will find that very unusual ideas get connected. For instance, Goa reminds you of sea, Goa reminds you of blue, Goa reminds you of sand. Imagine that you say that, I am going to use this as a theme for my interiors for my interior walls.

So I will try to evoke Goa in my house. See the moment to start processing start working on this there are a lot of other ideas which will also come.

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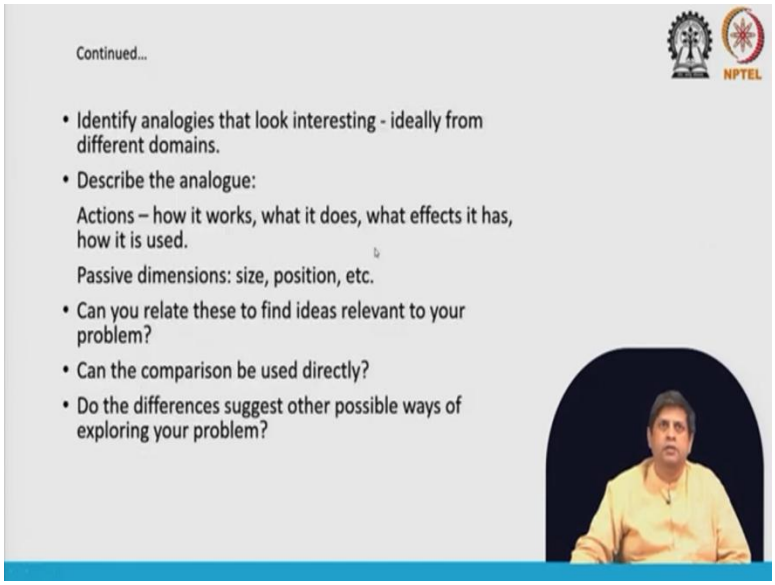

So, the details are given here, you look into them, some of them, and you see how you can do these. And I will not go into the details, because as I told you, time permitting, I will focus only just on one in detail. And the other one, the mechanism I will explain to you.

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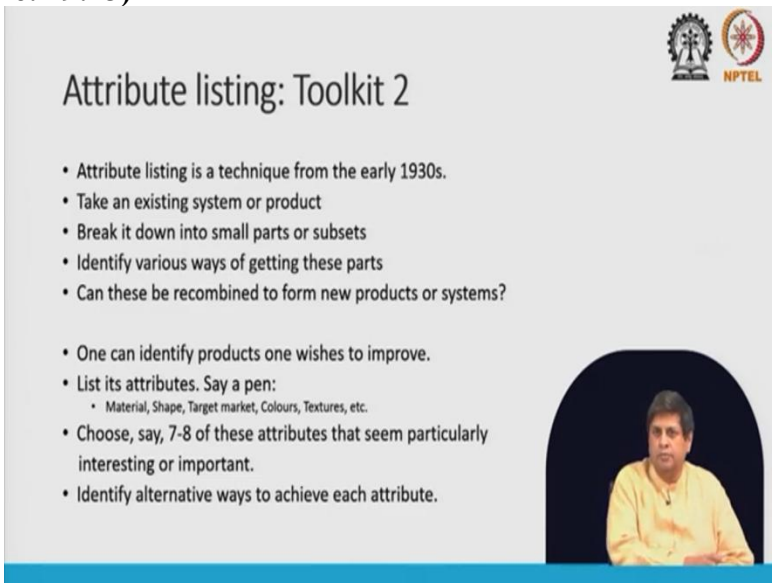

Attribute listing is again pretty similar to the one we talked about. So, let us say that take an existing system or product, break it down into small parts or subsets identify various ways of getting these parts, can these be recombined to form a new product or system. Imagine that you have these kids mechanics sets, where you see that you are given a kind of a leaflet where you are told that how to make a train how to make a truck and the different things are given.

But do not use it that way, say that I would like to make a mechanical robot using it. Now you start improvising and you start connecting them in various different ways. Ways that were not recommended in that toolkit. Now this is where you are doing something innovative because you are trying to reconstitute the subsets or the components in a different way. What does it tell us? The fundamental the essence of things.

Let me explain this concept to you is that when you break down things, they become de familiarized. Let me explain, again, the things, if I am looking at a mobile phone, this mobile phone is a familiar object, I start taking it apart. And when I do that, I suddenly realize that the different parts of it independently are not familiar, I cannot even recognize that this is a part of the mobile.

So you finally find that if I give you this project that, if you combine this in a different way, you do not know what it is, since you have started looking at these familiar objects in new ways, new ways of combining them will come through, the fundamental of what I shared with you in the earlier case. And what I am saying here, and which I will be sharing in the next case also, is something similar.

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I will talk a little about brainstorming, and then we will move ahead. Brainstorming is all about the ability to think without putting an imposition or a kind of restriction on your thought process. Friends, when our brains are set free, they start making random connections, random within quotes, there are a lot of connections which exist, we start making these connections arbitrarily without a rational position.

Brainstorming is about the ability to develop the skill to be not thinks rationally for a certain period of time. Think of whatever is coming to your mind, they might sound idiotic, the mind might sound too serious, they might find ridiculous, irrational, does not matter, come up with those ideas. Very often from these ideas, new ideas can be generated. But the point is that in most cases, when people ask us for suggestions, we have a social imposition, that my suggestions should really feel nice.

If I make a suggestion, that might sound idiotic under those circumstances, what happens is that we are in a situation where brainstorming does not really take place meaningfully.

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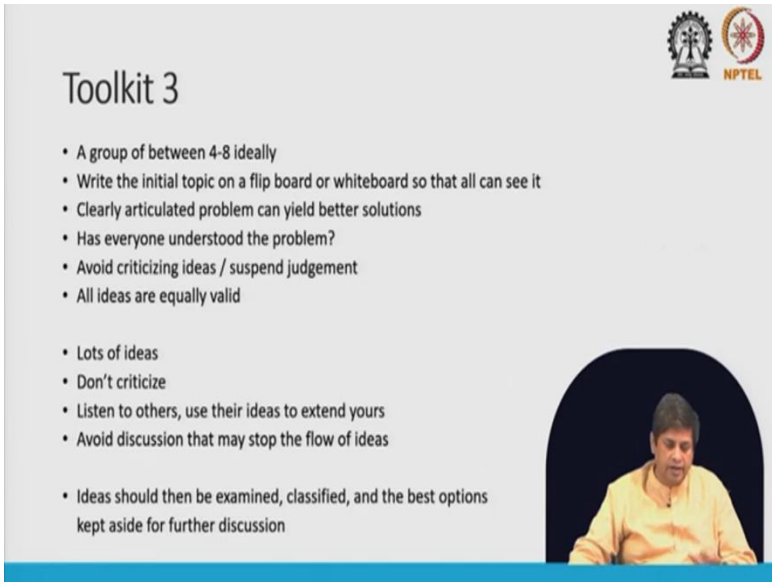

So there are again tools of how to do the brainstorming, I will not go into the details. But the basic idea is there and you can look into the slides.

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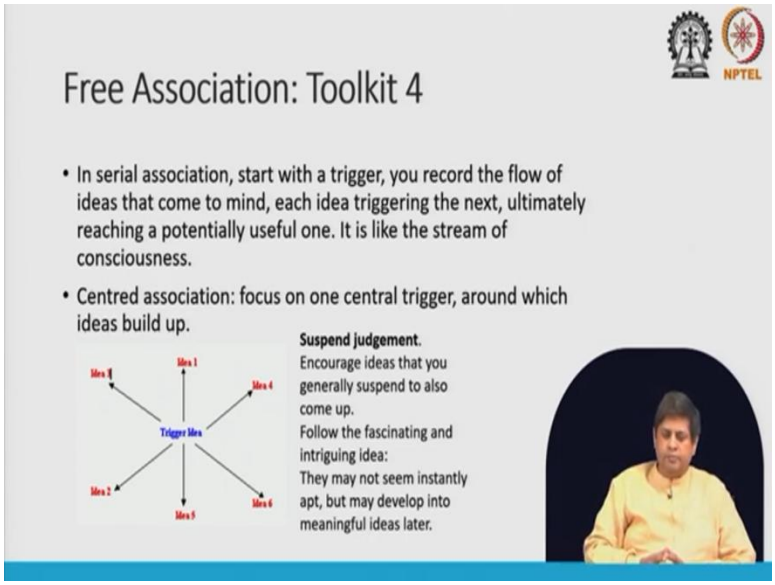

But I will deal a little more in detail with the concept of free association, which is embedded in the concept of brainstorming. Let me explain this to you. So imagine that the moment you think of a word, let us say talk about the word ice cream. A lot of other words start coming to my mind, somebody will think of the colour of the ice cream, somebody will think about the visual of an ice cream and all that.

Let us break it down ice suddenly a whole other set of images and words start coming in, I talk about cream, suddenly another whole other set of words and images coming, the moment I combine ice and cream, only 1 image comes different kinds of ice creams, nothing else comes to my mind. So, you find that the moment these 2 words are combined together, there is a convergence, when they are differentiated, they are put apart, they have a divergence.

So let us say that free association is whatever words come to my mind, I will be putting them together. So one of the assignments I give very often in my class is that imagine that you have to create an ice cream brand for IIT Kharagpur. And you have to create a tagline or an advertisement or put certain ideas together.

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So the key concept over here is ice cream for IITKGP students. But then I tell them that break it up into 5 different units. IITKGP ice cream students 5 separate components, do not think about them together, the moment you think about them together, you will come up with some basic ideas and they will be pretty similar to one another. But if you are saying that IIT you see a whole set of ideas which have nothing to do with ice cream.

Coming when I talk about Kharagpur, a whole set of ideas which have nothing to do with again ice cream for IITKGP coming when I talk about ice independent of cream, a lot of things I mean, I am talking about ice cream mountain would not obviously come into my mind talking about cream fragrance would not come into my mind, ice cream students whole set of ideas come up.

So when you start listing this, this is like again attribute listing but listing but of a different kind. That is why I said that many of these techniques are connected with one another. Here kinds of these are not attributes listing, but these are free associations. Now what happens is that now I have a permutation or combination of more than 300, 400 different options. Because in each list I have something like 7, 8, 10 words and these words can be connected in different ways.

So I am just given made bold certain ideas which can become connected in interesting ways that okay IITKGP, students are stressed, IIT is a hot place. Ice Cream brings in the image of mountains of beautiful smell, and enjoyment, can we connect them in some specific way?

Think of this connection and create your own ad text. This is a small assignment that I give to you or you talk about hostels, a difficult life in hostels.

And you talk about the concept of fullness, and then talking about study stress, and connect it in a different way. So what happens is that this gives you a whole set of possible ways that new connections can be made. And what you are trying to do basically is make the brain stop thinking in a rational, logical way. But then, if we want to put it all together, wrap it up altogether.

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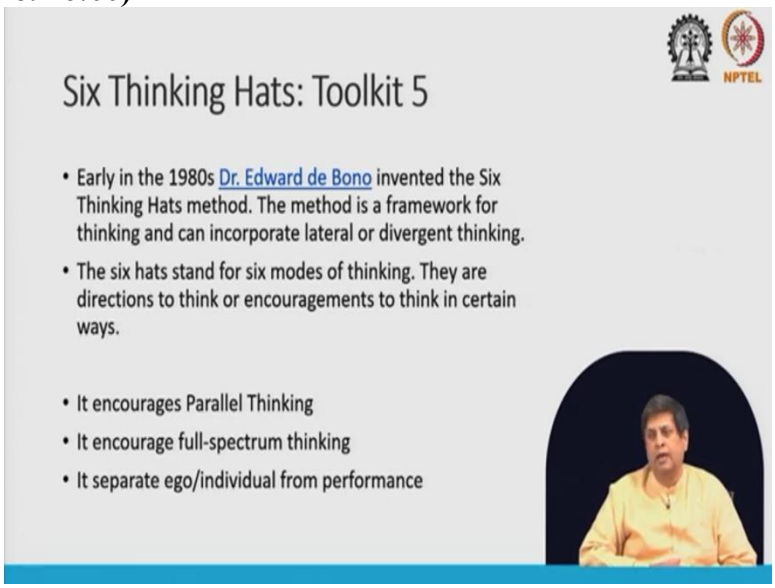

Let us take the concept of the 6 thinking hats and with that, we will stop this session. Because it encourages parallel thinking allows us to think in a wide range of ways.

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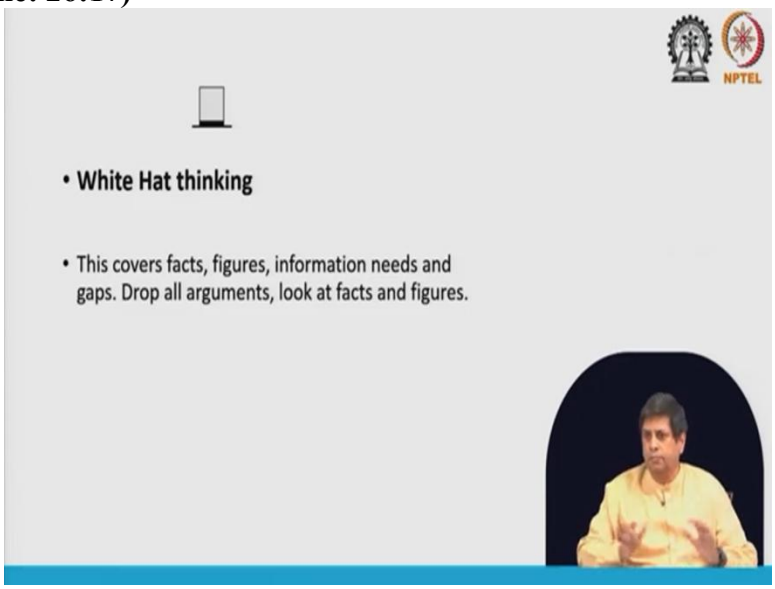

Friends, we can think in various different ways. And here, we are going to focus on the various ways that we can think together. So what are the 6 thinking hats? Let us say that we have a problem, we have a company, and we have a problem, we have to solve the problem, or we have to come up with a creative idea. And there are a group of 5 people who are sitting together, and they are trying to solve this problem.

Now see, the moment we say that we want to solve the problem, what comes into mind is what is known as convergent thinking. We have to solve this problem. Get rid of that idea from your mind. White hat thinking is that first get the facts, facts, figures, information, drop all arguments, do not talk about the antecedents, consequences, possibilities, fears, hopes, forget about all this facts, facts, facts, put them together, list them together.

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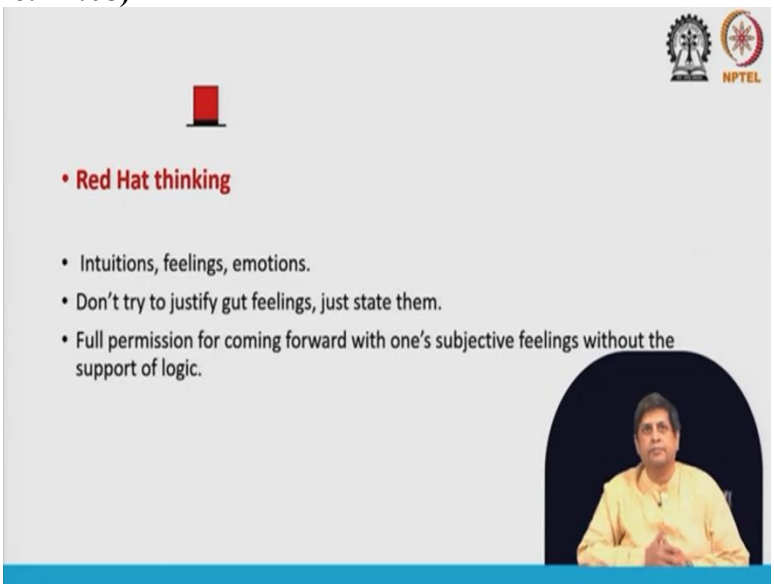

Now, red hat thinking into some feelings, emotions, do not justify them. This part of this particular thing seems exciting. Why exciting, don't bother about it, go by your gut feeling. Permit yourself to think emotionally without trying to rationalize. And we have talked about the significance of gut feeling earlier, don't feel try to justify anything, you have the full permission of coming up with anything.

Now this idea seems to be crap, these ideas and that idea seems to be brilliant. I can't tell you why it is brilliant, why this is crap, but this is my intuition, intuitive thinking.

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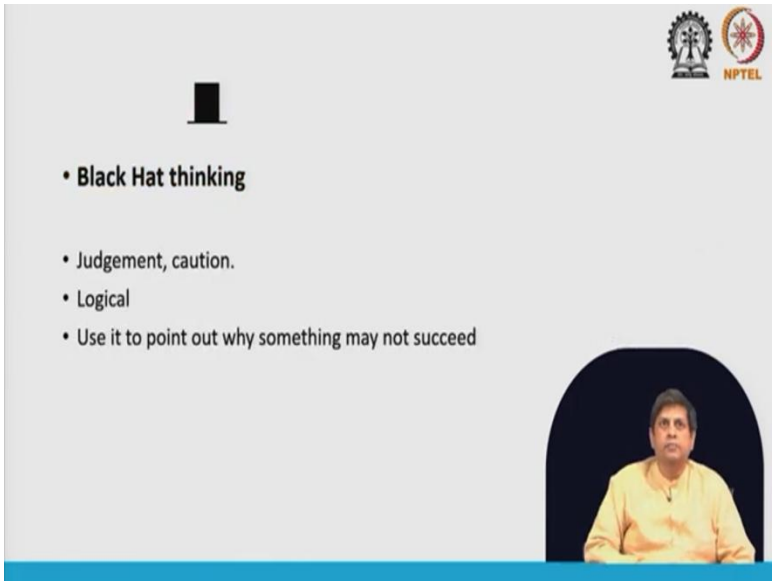

Then you go to black hat thinking now that you have got these ideas, first, you got the facts, you got a lot of ideas about this facts, your judgment, caution and logical. So now you are going for convergent thinking cautious, rationalistic thinking as opposed to heuristic thinking.

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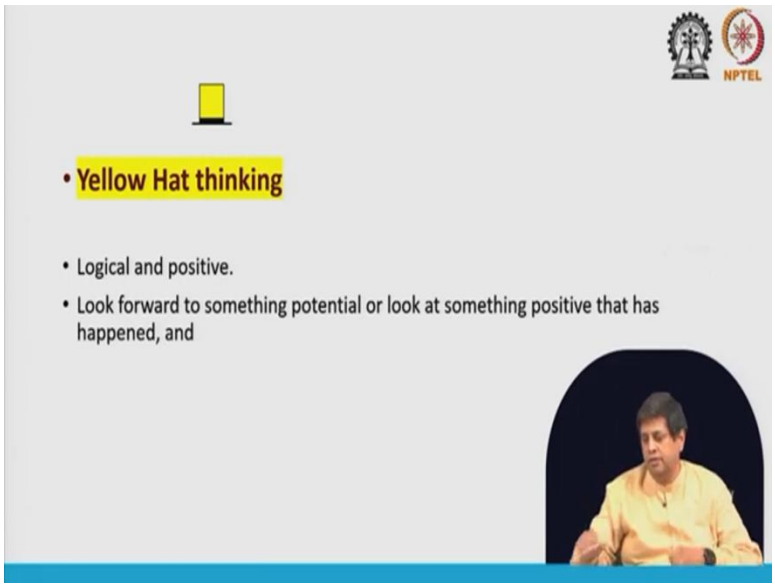

Yellow hat thinking logical, but positive. Now you're thinking rationally because finally you need that, but you are also thinking positively. You are trying to find, these are the possibilities which exist, but let us think positively so you are combining the cognitive and the affective aspect together and you are thinking.

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Green hat thinking creativity, alternatives, proposals, provocations changes, the word association test the brainstorming those would help. So, concept that you have brought together, what are the various possibilities, so the whole range of possibilities opportunities, but in a positive way, are put together.

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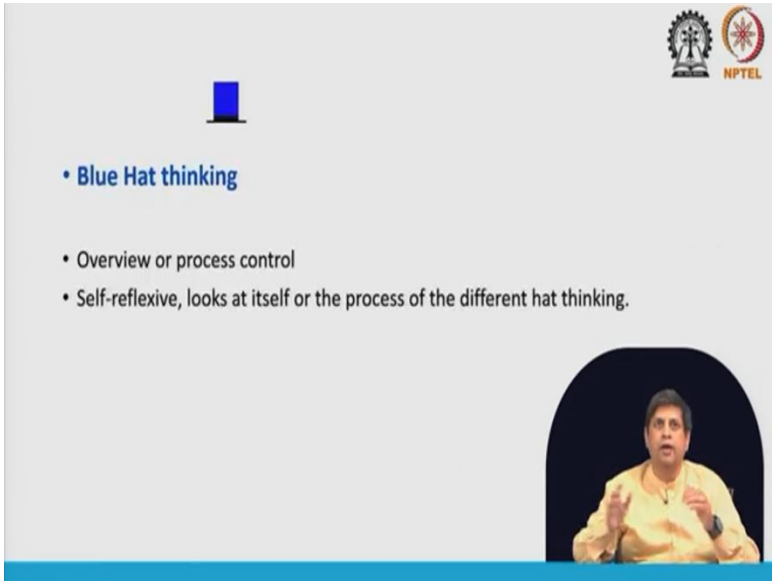

And then you have the culmination of all the things, processes, summing it up all together, because at the end of the day, all creative, divergent thinking must finally culminate in a product in something which is outcome, which is tangible, and that tangible is something which is a unit very often, which can be identified as something. And that is something that identity is something which can, which needs that everything's needs to be put together.

So, the various thinking processes; have to be assimilated at some point, we might do it systematically, we might do it, I mean, not very systematically, not in a very organized way. But the 6 thinking hat kind of brings in different categories of thinking together and put them together for you.

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So, I hope that you will put to practice some of the things we have talked about in your life. The creativity techniques, as I told you are essentially to make you aware of the fact that in our lives, every small act can be creative. And one of the tools, fundamental tools of being creative is to allow ourselves to think differently. I use the word allow ourselves because we are in the habit of thinking in a specific manner.

If we start modifying the way we think, then we would be in a better position to think differently. Give it an opportunity, give it a try. Try any of those 5 tools that I have shared with you, there are others which are available in the references.

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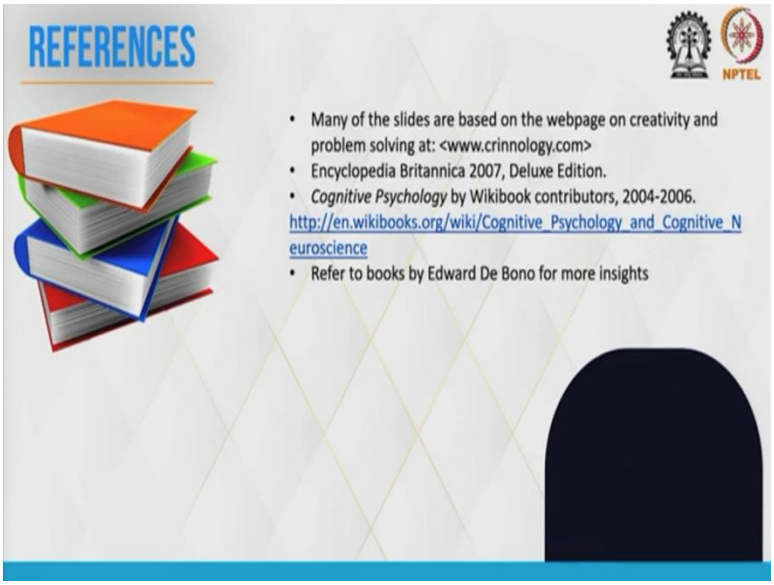

And there are a lot of materials which are available on different creative practices that you can follow. But I hope that this will give you an opportunity to enjoy yourselves. Happiness to creativity is something which is very much accessible to all of us. And let us see if we can actually put it to practice in our day to day life and in the workplace, to make our lives more meaningful and exciting. Thank you.