

Indian Institute of Technology Kanpur
National Programme on Technology Enhanced Learning (NPTEL)
Course Title
A Brief Introduction of Psychology

Lecture – 01
Emotion

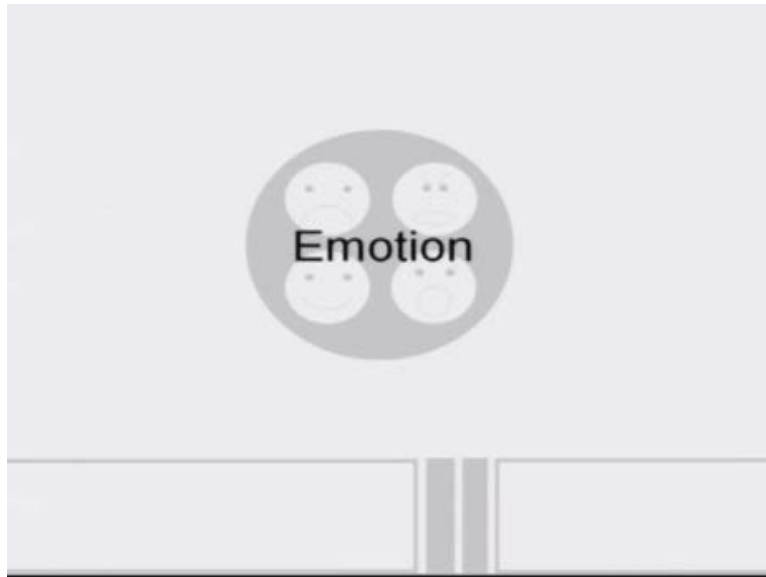
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This is the last topic that we are going to discuss now that we have talking about perception we have also seen how we learn things how we memories how do we forget things, recollect your experiences situations where somebody shared a good news with you and you were full of joy your happiness was glaringly visible on your face you heard the news of death of a beloved one and you were extremely sad you thought something will not happen and it happened and you were caught by surprise.

These are some of the things that we are going to talk about in this very course as part of emotion where first we would try to understand what emotion means how psychologists they have tried to understand human emotion the entire effective process perceive and because no we will have a limitation of only 20 minutes lecture distributed cross six lectures.

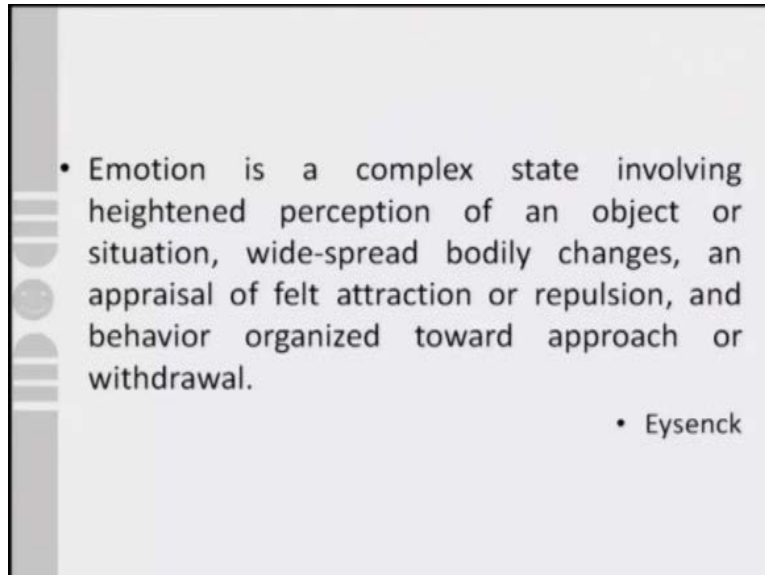
So we will try to also see not only the measure theories that tries to explain emotion.

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But also how emotion and understanding of emotion has grown and become wider and wider helping us understand how we feel what we feel and why do we feel what exactly we feel, so that is all about now the topics that we would be talking about just to define emotion I am taking this very definition Eysenck who says that emotion is a complex State.

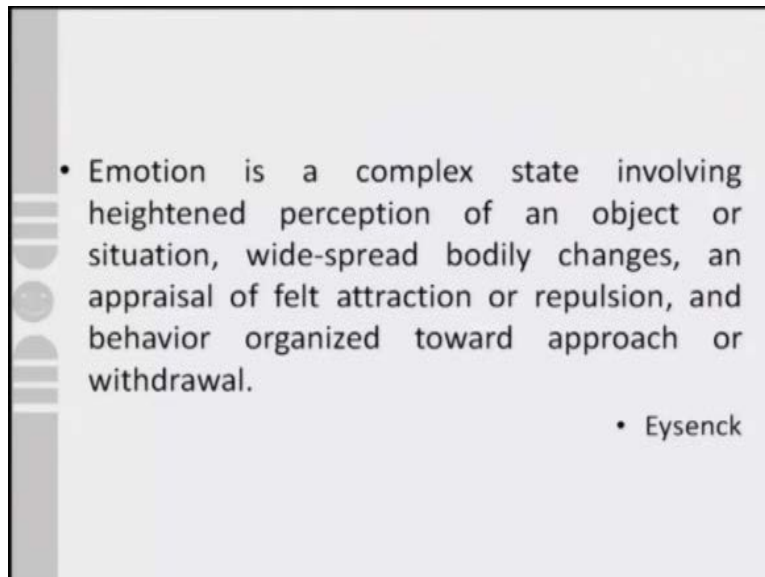
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Involving heightened perception of an object or situation widespread bodily changes and appraisal of felt attraction or repulsion and behavior organized towards approach or withdrawal so if you look at this very definition you will come to know whole variety of things that are associated with emotion first that it has to do with heightened perception okay. You perceive an object you perceive a situation and then you have a heighten degree of perception which leads to a complex state.

What is that complex state okay and if I know breakup this into say the complexity that Eysenck talks about it would be something like this.

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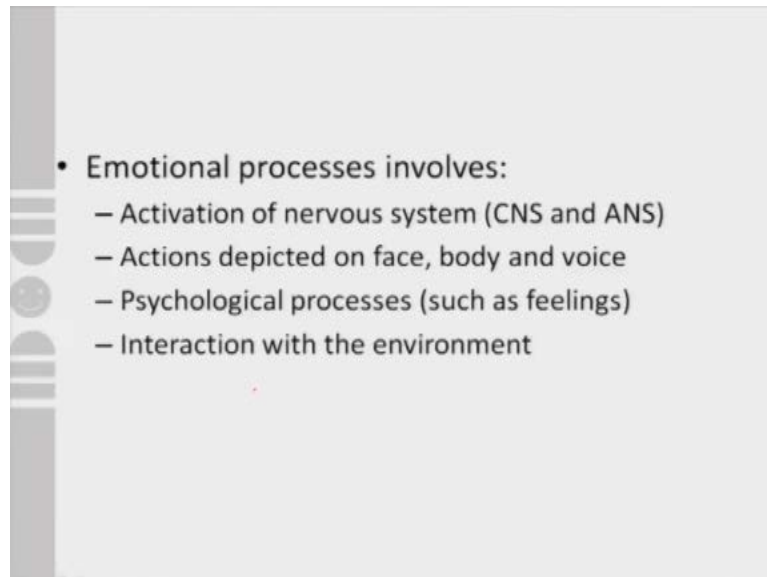


The first thing you have is the heightened perception bodily changes appraisal which is either attraction or repulsion and then behavior which either follows an approach or a withdrawal mechanism, okay so can understand know that perception has to be heightened the body will undergo certain changes you will go for an appraisal mechanism you will think about it why whatever is happening is happening what does that mean okay.

How relevant how significant that is okay and based on that you will either move towards the source of attraction or repulsion okay or you would move away from it, so if you move towards the object then it is attraction if you move away from the object it is repulsion okay and then the entire behavioral manifestations the behavioral output okay will either be an approach or an avoidance response okay.

So the whole lot of issues are involved in emotion.

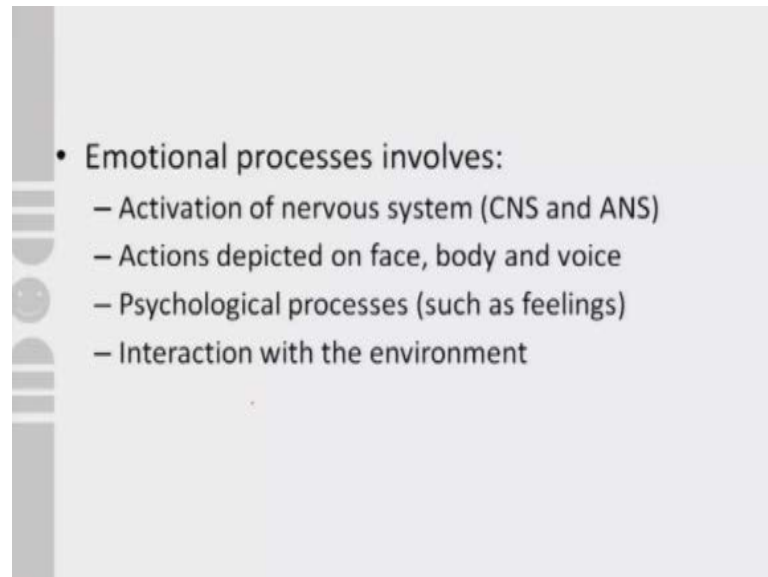
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Emotional processes largely involves four things first activation of the nervous system, so when we say activation of the nervous system it could be activation of the central nervous system as well as the autonomic nervous system same for instance you watch a movie and when you see know the hero changing the villain okay you realize that the sequence that you see on the screen actually makes change in your heartbeat okay your beat becomes faster because the heart beat has increased so the pulse rate is know by default going to increase the respiration rate might change the sensitivity the flow of current on the surface of the skin will undergo change.

Now what is GSR galvanic skin response so the nervous system actually becomes activated that is one of the important processes involving emotion second the action gets depicted.

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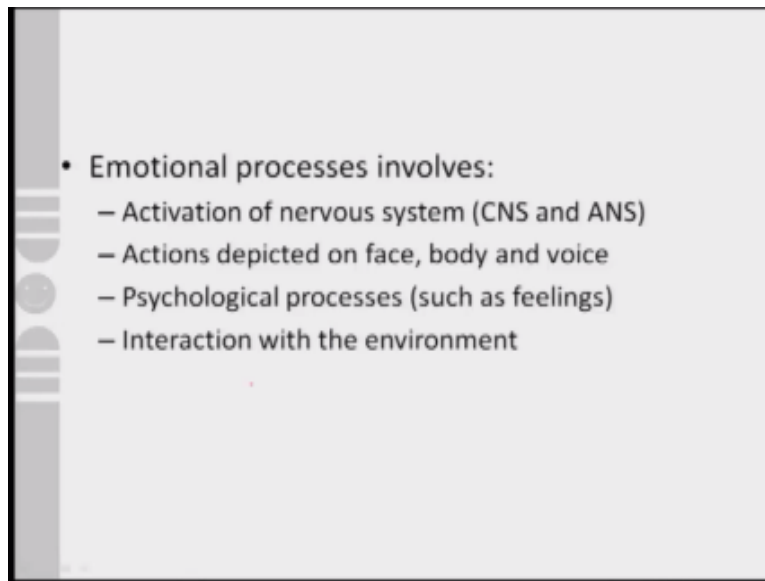
On face body or voice so the facial expression changes and right looking at your face one can understand whether you are experiencing a particular type of emotion or not okay the same happiness, sadness, disgusts, surprise okay all these things can very easily be now understood just while looking at the face of the individual okay to the bodily mechanism know the gestures, the postures that will also get influence.

So if you are happy okay your entire know gestures and postures will very clearly reflect how activated you are, okay. Similarly you will be no depicted by your gestures and postures sense little bit wrong, if say for instance if you are extremely sad and these changes in the emotion is also visible in the face, okay. So voice modulation takes place depending on the emotion that you are experiencing.

Three, emotion has psychological processes in embedded into it, okay. The whole concept of subjective experience know the feeling. So what actually happens to your body, what happens in the normal nervous system whether it is central or autonomic or what happens to the face or what happens to your voice okay? These are the changes that can be examined that happens to you.

But then at the end of these events you finally derive a feeling out of it, what is that feeling, okay. That subjective feeling that you have derived in a given situation that is an important and one of the perhaps most important concepts associated with emotional processes and then the fourth one is the interaction within the environment.

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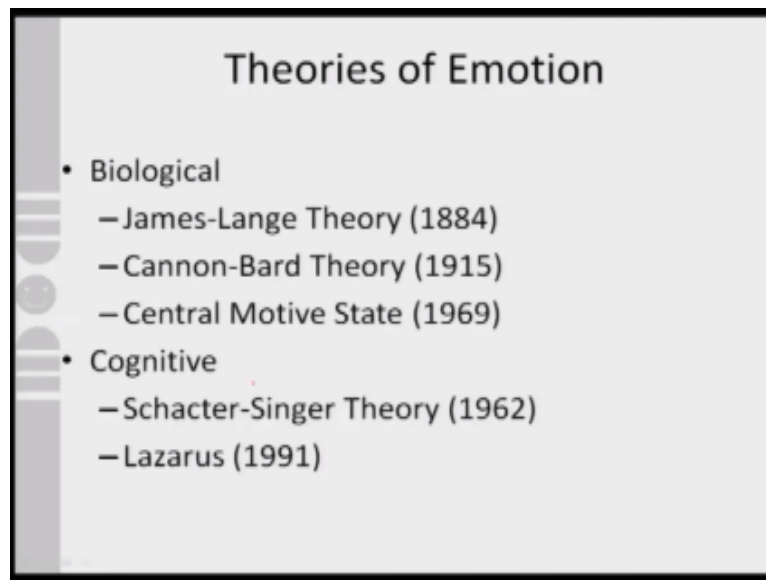


Depending on what you feel, you will now decide your course of interaction with the environment, if you consider the environment to be hostile, okay. The environment which is a full of fearful elements, okay. You are by default going to withdraw yourself, okay. So you will overall engagement with the process will know not be visible, whereas if you realize that the environment is a full of signals.

That makes you very, very happy, okay. Or it is full of surprise element, okay. Your involvement with your environment increases, therefore the pattern of interaction that one will show to the environment will also be decided by the emotion that one will experience. So these are the four important processes that are involved with emotion.

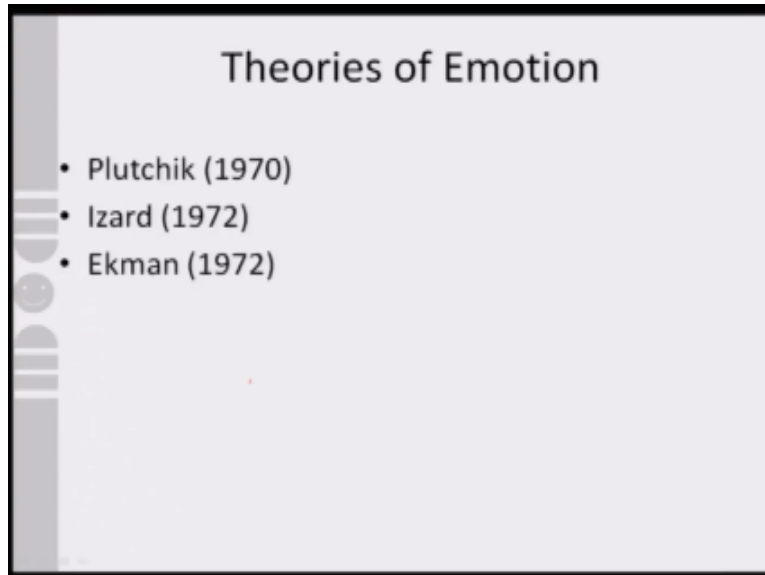
We will now very succinctly try to understand the theories which have tried to explain the process of emotion. For convenience, what I have done is, that I am dividing these theories into two major segments.

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The biological theories and the cognitive theories and besides these two theories these two set of theories rather.

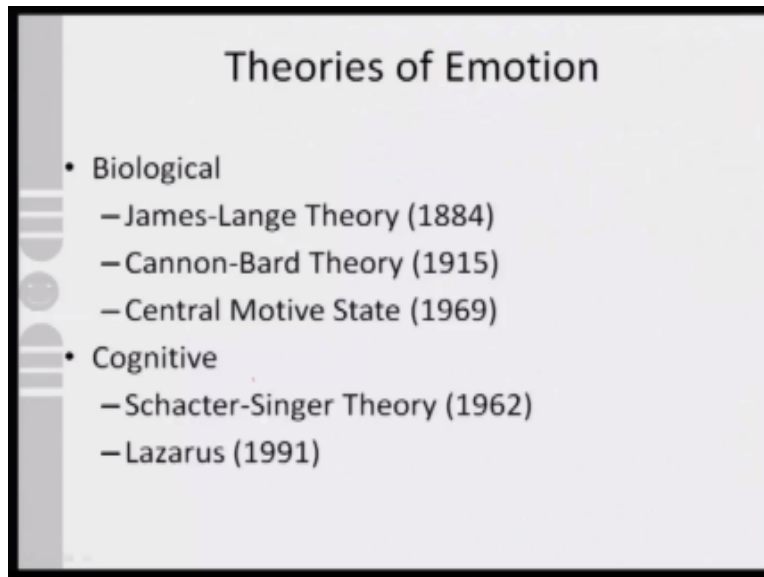
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We will also like to look at the theories given by Plutchik, Izard and Ekman because they have tried their best to classify emotion and to parse out the basic form the purest form of emotion which is not confirmed by any other subjective experience.

So what are those basic emotions and how is it that no two emotions they mixed together and what is the third thing that gets generated out of it? So these things also we will like to discuss here. So let us first begin with James Lange Theory, okay.

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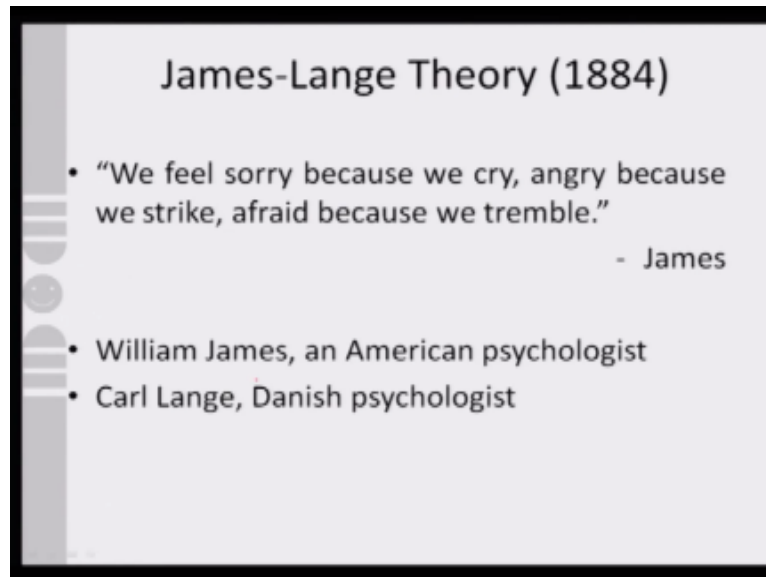
The slide is titled "Theories of Emotion" in a bold, black font at the top center. Below the title, there is a bulleted list of theories. The first bullet is "Biological", followed by three sub-bullets: "James-Lange Theory (1884)", "Cannon-Bard Theory (1915)", and "Central Motive State (1969)". The second main bullet is "Cognitive", followed by two sub-bullets: "Schacter-Singer Theory (1962)" and "Lazarus (1991)". On the left side of the slide, there is a vertical grey bar with several white circular and rectangular shapes, resembling a film strip or a decorative element.

Theories of Emotion

- Biological
 - James-Lange Theory (1884)
 - Cannon-Bard Theory (1915)
 - Central Motive State (1969)
- Cognitive
 - Schacter-Singer Theory (1962)
 - Lazarus (1991)

Which was proposed in 1884?

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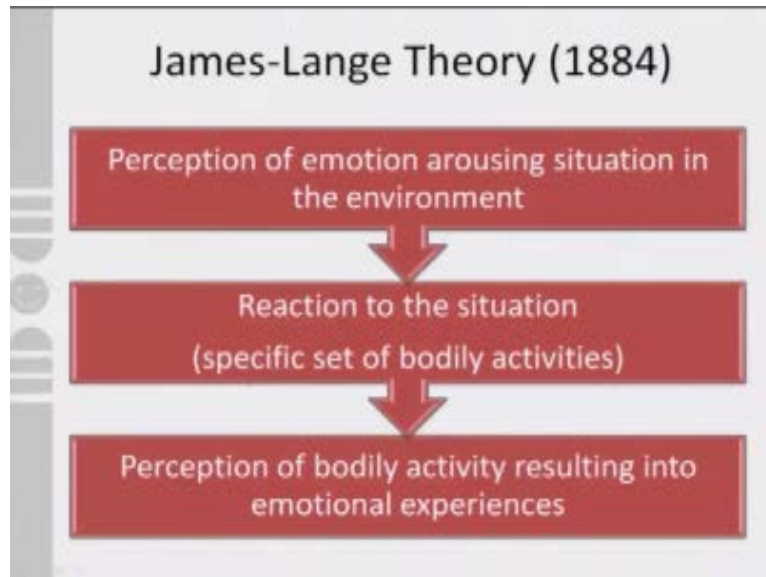


James I am quoting him, he said we feel sorry because we cry, angry because we strike, afraid because we tremble. So what actually he was saying was, that it is not that know you first feel the emotion and then you respond to it, okay. He said that because you cry therefore you feel sorry in a given situation, okay. So because you are scared you tremble, therefore now your trembling behavior gives you a feel of fear, okay.

You are afraid of something. This means what we otherwise thing that we feel and then now the process takes place he says the reverse of it. Now when William James was now thinking about now how human beings experience their emotion along with this Americans psychologist there was somebody else, okay. A Danish psychologists called Carl Lange, okay.

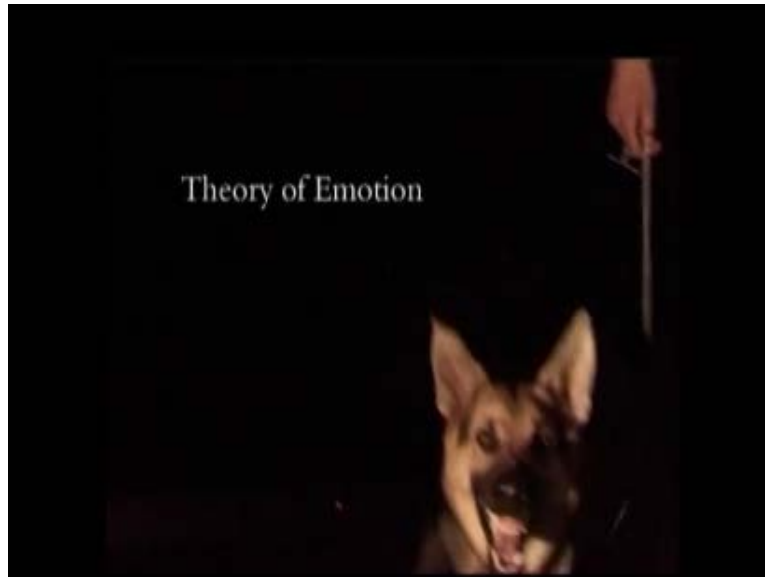
He also proposed similar type of theory and therefore the, although this theory was not an outcome of a collaborative work, okay. But in the literature you will find that the credit has been shared with both of them both of them have been recognized for proposing this theory and therefore it is called James Lange Theory. Now what this theory says is, that first we perceive the emotion, okay.

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That arises out of a situation in the environment. So there is a situation in the environment and you perceive it, this perception of emotion okay, leads to reaction to the situation. Which in turn basically would get reflected in terms of a specific set of bodily activities okay, and when we react to the situation we then perceive our bodily activities the perception of the bodily activity then finally results into an emotional experience okay. Let us understand this by this very example.

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What did you see here primarily this man was afraid of the dog. Now, why was this man running? Because this man was scared of the dog okay, so according to James Lange Theory, this man actually saw the dog in the environment, so there was a perception of the dog in the environment to he reactive know, he started running away. Because he started running away therefore, the third step comes where, he perceives that he is sweating, his heart beat has increased okay, this whole experience, subjective experience of running away from the object that is internalized, and then it finally results into the perception of fear okay.

Now think of a situation, what James Lange says is that you have the object, the situation presence in the environment you respond to it okay. And accordingly you feel the emotion, the example that we saw right now was, that a man is scared of dogs okay, and according to James Lange, his fear of dog is governed largely by the fact that he is trying to run away from the top. Look at this very example an interesting example, where you find a small child okay 14 month old child playing with a python.

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The previous example we saw where this adult man was running away from the dog, because he interpreted okay, that this is a fearful object in the environment he ran away and because he started running away okay, he experienced fear. In this very example.

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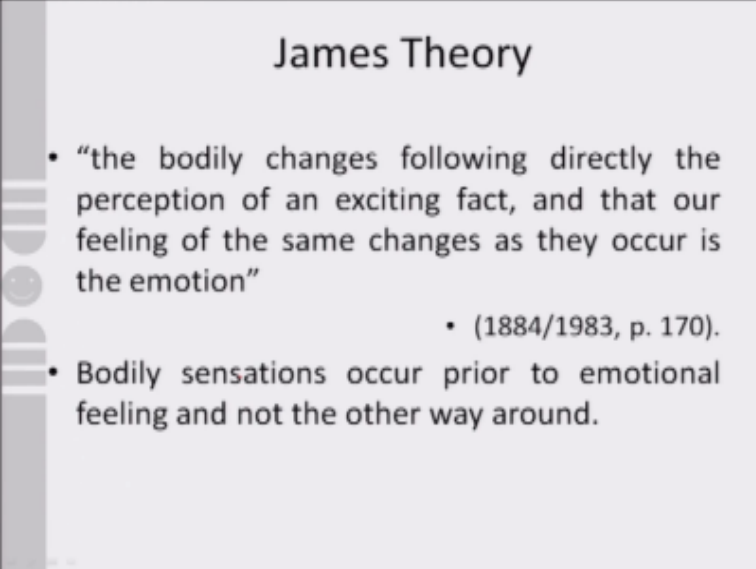
The python you can see okay, he has scrolled and then the baby is playing, when at least the feet is under the body of the python the hand is no too close to the body of the python and there is no, no, experience of fear at all okay. Now in this very example, this baby is not scared of the python, because she is not considering.

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The object she is not pursuing the object in the situation to something that she should be skeptical about and therefore run away, because she is not running away okay, therefore that fear is not induced. Whereas most of us if we are put in this very situation, we would be extremely scared okay. So this is what was James Lange theory James know theory further says, I again quote him.

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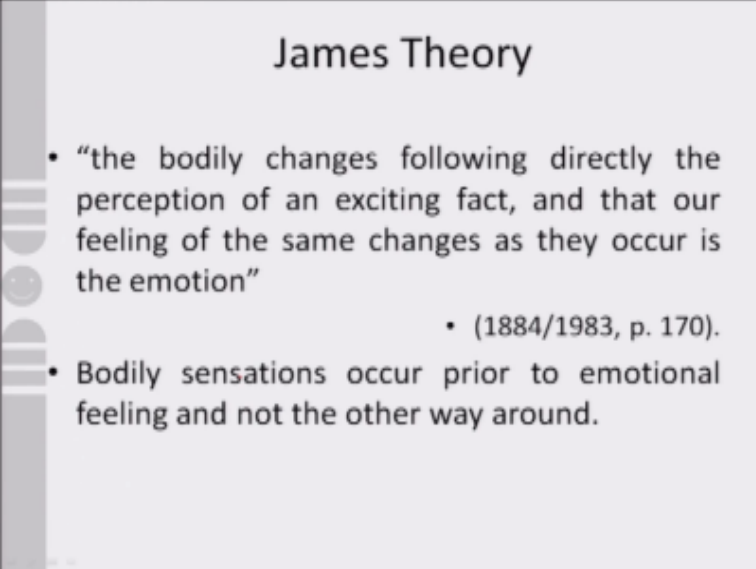


James Theory

- “the bodily changes following directly the perception of an exciting fact, and that our feeling of the same changes as they occur is the emotion”
 - (1884/1983, p. 170).
- Bodily sensations occur prior to emotional feeling and not the other way around.

That, “the bodily changes following directly the perception of an exciting fact, and that our feeling of the same changes as they occur is the emotion”. So he was trying to explain emotion as, the feeling of the changes that takes place in the body okay, and this theory further says, that the bodily sensations they occurred prior to the emotional feeling and not the other way around.

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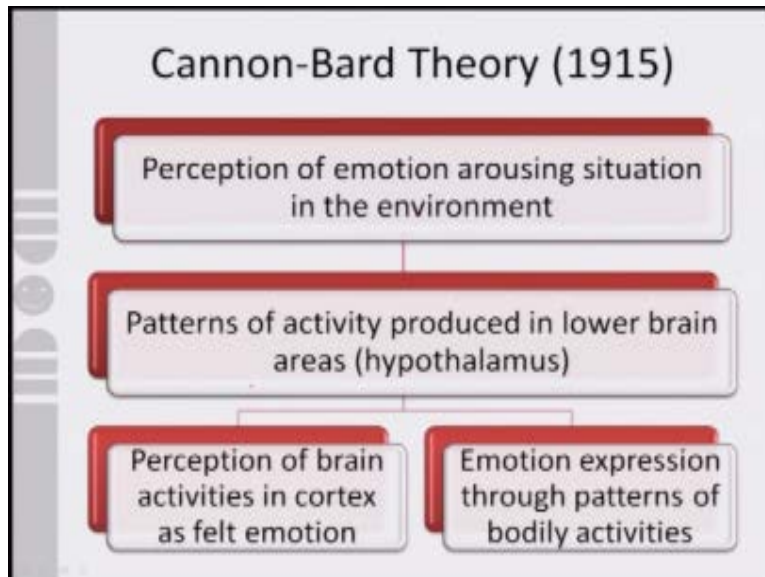


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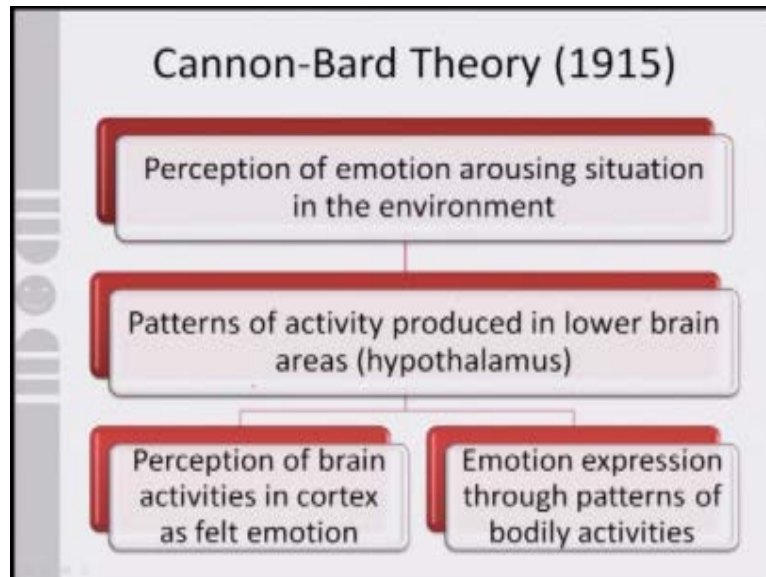
Most of us, we think the other way around that we have the emotion it is the emotion that leads to a bodily changes, whereas James Lange theory proposes that we have the bodily changes first, the sensation first okay. And it is this bodily sensation the change there that finally leads to the experience of or give any emotion. We come to the other theory now.

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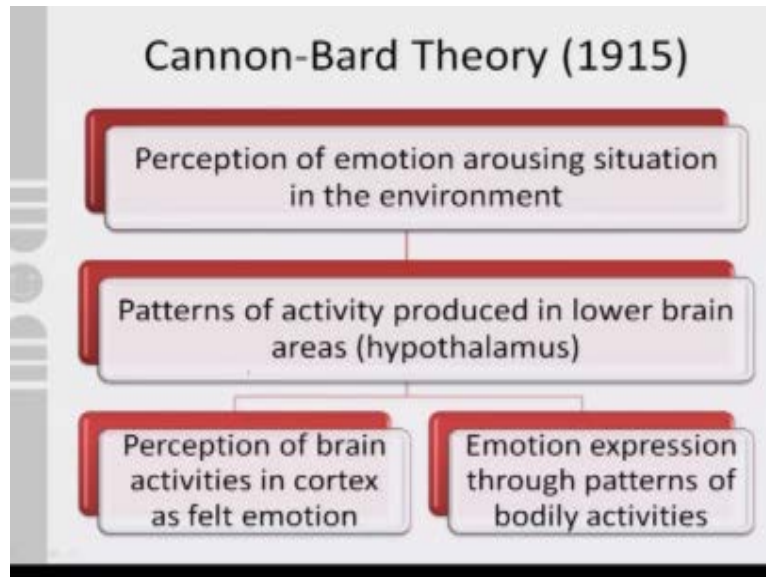
Cannon- Bard theory came in 1915, and this was further revision of the James Lange's viewpoint. They said that perception of an emotion.

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Okay, is based on the situation in the environment which is off course arousing enough, so the person concerned perceives the emotional arousing situation in the environment and this internally leads to pattern of activity in the lower brain area okay because the activity has now right from the perception of the situation in the environment has now gone to now certain type of pattern.

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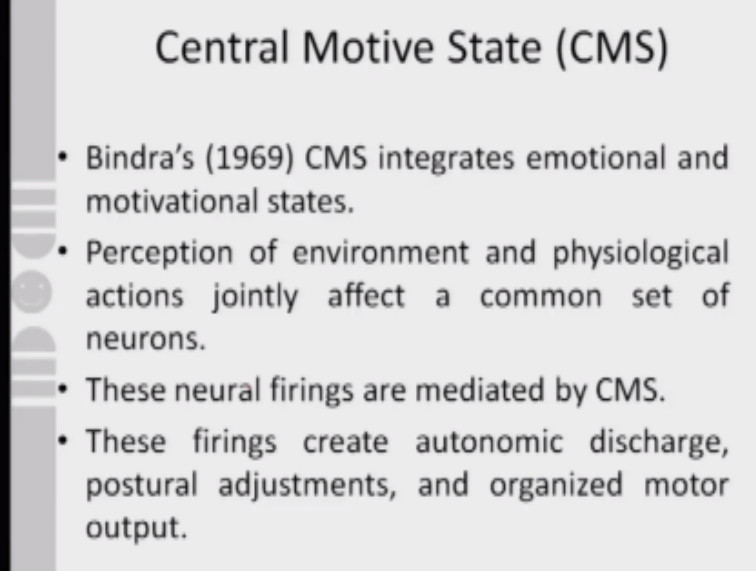
that is produced in the lower brain areas therefore two things now simultaneously happen one perception of the brain activity in the cortex okay which is felt has an emotion and simultaneously the emotion expression is now that takes place through the pattern of bodily activities. So the changes between James Lynch theory and cannon bard theory was that James lynch said that we perceived emotional arousing situation in the environment then we respond and because our bodily responds now takes place we look at our own response pattern and therefore we experienced the emotion.

Cannon bard made change here they said at perception of emotional arousing situation does takes place but then this perception leads to certain type of activity that takes place in the lower brain areas and that no pattern of activity that takes place in the lower brain area leads two simultaneous things. At the same time when we experience the emotion because of the activities in the brain we also now experienced or emotion through the bodily activities.

So the bodily responds and the filled expression the filled experience of the emotion both of them they go Parallel to each other this was cannon bard theory so the bodily response and the filled exposition the filled experience of the emotion both of them they go

parallel this was Cannon-Bard theory. The third theory which is considered the biological framework is the central motif theory given by Bindra .

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Central Motive State (CMS)

- Bindra's (1969) CMS integrates emotional and motivational states.
- Perception of environment and physiological actions jointly affect a common set of neurons.
- These neural firings are mediated by CMS.
- These firings create autonomic discharge, postural adjustments, and organized motor output.

Bindra's theory says that you need to integrate emotional and motivational states to understand how human beings experience the emotion and according to Bindra the perception of environment and the physiological actions jointly effective common set of Neurons these neural firings are mediated by the central motive state. And these firing they created autonomic discharge postural adjustment and they also organized the motor output.

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Central Motive State (CMS)

- CMS is not autonomous of external conditions and can be altered by experiences, but also has inherited components.
 - (Candland et al., 1977)
- Thus, CMS can be classically conditioned.
- One can be trained to react in a certain manner to a stimuli.

Therefore the central motive state actually is not an autonomous state of external condition and can be altered by experiences but also has certain components and therefore no it is also suggested that the central motif state can be classically conditioned means one can be trained to react in a certain manner to as certain struggling right now the example it is you saw of the baby playing the birth in.

The Burmese father who recorded this was basically trying to propagate the message that people should not be scared of animals and they should take care of animals all animals including animals that homely have great degree of like snakes. Now he was basically trying to train not only his own baby but also tried to be trying to give message to the society. Basically this is what CMS says that one can be trained to react in a certain way you can be trained not to be scared of apartheid which is usually against what is comments and securely received.