# Introduction to Psychology Prof. Braj Bhushan Department of Humanities and Social Sciences Indian Institute of Technology, Kanpur

### Lecture - 24 Emotion - Theories of Emotion - 2

Now, that we have discussed the biological theories trying to explain emotion, we are now going to talk about the cognitive theory. So, the Schacter's Theory is something that talks about the cognitive appraisal. Appraisal is a mechanism where you meta think about the experience that you are having.

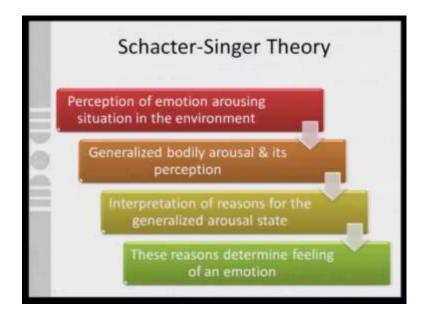
(Refer Slide Time: 00:33)

## Schacter's Theory

- Cognitive Appraisal
- Perception of emotion comprises of physiological arousal as well as labeling of that emotional arousal.
  - The physiological arousal provides the primary strength to perceive an emotion.

So, what this theory is says is that the perception of emotion basically comprises of the physiological arousal as well as labeling of that emotional arousal. So, you experienced the psychological arousal which actually provides the primary strength to perceive an emotion, but then you try to label this. So, once you have the physiological arousal you try to assign a meaning to this very emotional arousal you try to label it.

(Refer Slide Time: 01:12)



So, according to Schacter-Singer perception of emotion arousing situation express in the environment you remember this was the first thing and it has remained common write from gemes lenzan theory two cannon bard theory. Everywhere you have the perception of emotion arousing situation in the environment. Then, this leads to the generalized bodily arousal and its perception of which is again common to the biological theories, but that the addition is that after you have the generalized bodily arousal and its perception of the bodily arousal you try to interpret and you try to interpret this bodily arousal and try to give a reason for this generalized arousal, why is it that I experience this type of a state and these reasons basically they determine the feeling of an emotion.

So, the situation is perceived, you have a bodily response, you try to understand you try to interpret, you try to give a reason to the physiological changes the bodily arousal and this state of arousal, the reason that you give that reason determines what emotion will be experienced. Therefore, it is called cognitive appraisal theory.

(Refer Slide Time: 02:39)

## Schacter's Theory

- For instance, an attendant comes along with a patient to a dentist's clinic.
- · He has normal breathing and heartbeat.
- He can intellectually realize the patient's fear but can not experience fear or pain.
- · This is because of less arousal level.

For instance, an attendant comes along with the patient to a dentist's clinic. He has normal breathing and heart beat. Now he can intellectually realize the patient's fear, but cannot experience fear or pain.

(Refer Slide Time: 02:58)

## Schacter's Theory

- Arousal devoid of emotional label inhibits perception of emotion.
- For instance, a player with high level of physiological arousal during the game perceives little or no emotion.
- This is because the arousal is primarily because of non-emotional reasons.

This is because the lower degree of arousal level. Now arousal which is devoid of emotional label, they inhibits perception of emotion. Means if you are not able to identify the arousal that has taken place you will not be able to precede the emotion. For instance a player with high level of physiological arousal during the game perceives very

little or no emotion this is because arousal is primarily because of non emotional reasons you know. So, this is in one situation you take example of dentist clinic the second situation where you take a player in the ground.

(Refer Slide Time: 03:42)

# Schacter's Theory • Physiological arousal without apparent labeling stimulates a need for cognitive labeling. • This makes the individual move towards experiencing the emotion.

In both the situation, Schacter's Theory says that the psychological arousal without apparent labeling is stimulates a need for cognitive label and this makes the individual move towards experiencing the emotion. So, by the fault once you have the psychological arousal you will try to a find the reason behind that arousal and once you find the reason behind the arousal, if you have been able to identify the reason find your performed the task of cognitive labeling their arousal and that gives the meaning.

(Refer Slide Time: 04:15)

## Schacter's Theory

- Compared to other theories, this theory overwhelmingly support the significance of cognitive factors in emotional processes.
- This theory considers different emotions as diverse cognition of the same arousal.
- · This is in contrast to other theories.
- Other theories have consider different physiological concomitant for diverse emotions.

Now, compared to other theories, this theory overwhelmingly support the significant of cognitive factors in emotional processes and therefore, this theory basically considers different emotions as diverse cognition of the same arousal. So, there is a change in the heartbeat, there change in the pulse rate, there is change in the response, but then although the heartbeat changes the pattern of change that has taken place according to this theory is not important, why has the pattern changed, you yourself search meaning for this yourself assign a reason for this and once you assigned the reason for this this become the source of your emotion.

So, this is in contrast to other theories because this theory basically considers that different emotion are basically a diverse cognition of the same arousal label takes place .Other theories I have considered different psychological committees for diverse emotion. So, this is the major point of distinction between the biological theories and this very a specific theory the success single theory of emotion.

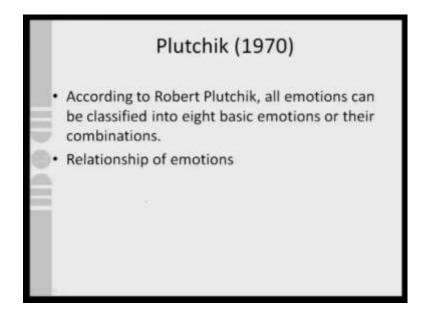
(Refer Slide Time: 05:28)

# Plutchik (1970) • According to Robert Plutchik, all emotions can be classified into eight basic emotions or their combinations. • Relationship of emotions

Now, Lazarus you know said that emotional responses are basically outcome of internal and a situational appraisal processes and according to Lazarus there are three possible outcomes the biological urges of the individuals to respond to act the subjective affect they emotion and the psychological responses and therefore, emotions at the same time along with performing with the task of, it also induces coping activities and that is a reason why in the literature in psychology later on you will come across emotion focused coping and problems focused coping the two coping strategies that was proposed by Lazarus.

Now, that we have talk about know the biological length of cognitive theories of emotion, let us now talk about how many types of emotions are there, if I ask you how many emotions are there, I am sure you will come across a with an exhausting list of emotions psychologist have tried to find out how many basic emotions are there basic emotion would mean that these set of emotions will have a very distinct features their characteristic will not overlap with other emotions. So, if the characteristics of happiness does not overlap with the characteristics of sadness then happiness and the sadness qualifies to be two distinct basic emotions, before I come to how many basic emotions have been now finally, agreed upon in the literature in psychology.

(Refer Slide Time: 07:24)



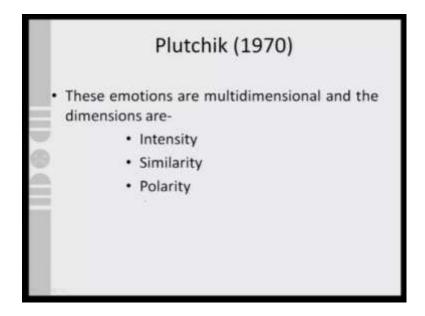
Let us first look at the proposal given by Plutchik according to Robert Plutchik, all emotions can be classified into 8 basic emotions. But what he nicely did was that he said that all these basic emotions you can also think of their combinations and the best was that he talked about the relationship among these emotions, joy, trust, fear, surprise, sadness, disgust, anger and anticipation. These are the 8 basic emotions that Plutchik talk about.

(Refer Slide Time: 07:48)



Now, that Plutchik proposed 8 basic emotions he said that these emotions are basically multidimensional and primarily he said that on the basic of intensity similarity and polarity intensity the high the low medium.

(Refer Slide Time: 08:03)



Similarity how common it is with the other one and the polarity completely on this side or completely on that side the positive or the negative Plutchik said that these three dimensions are extremely important when, you think in terms of combining these eight emotions and then trying to look at what would be the overall outcome of such types of combinations.

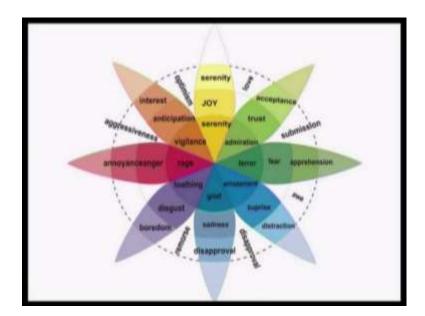
(Refer Slide Time: 08:47)

## Plutchik (1970)

- Plutchik arranged the primary emotions in a circle and the derived emotions in a third dimension based on intensity.
- There are mixed support for this emotion solid.

Now, Plutchik arranged the primary emotions in a circle and then derived emotions in a third dimension based on intensity there are mixed support for this emotion solid that Plutchik had proposed, but it is important for us to understand and we will also look at example which would substantiate what Plutchik was trying to propose.

(Refer Slide Time: 09:13)

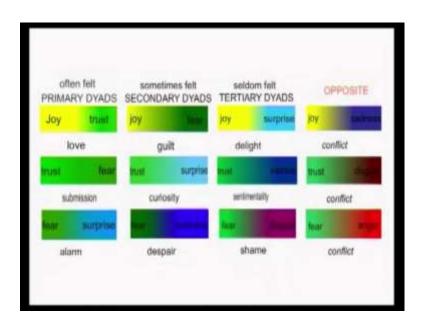


You can see the ring of 8 basic emotions write here we had just talked about them according to Plutchik the variation in intensity can give birth to another experience. For

example, fear it intensifies and then can become terror and if it loses a bit of intensity it becomes apprehension.

Similarly, added intensity converts surprise to amazement whereas, loss of intensity changes it to distraction again if you look at the other one conversions takes place in other basic emotions also sadness converts to grief and disapproval disgust to loathing and boredom anger to rage and annoyance anticipation to vigilance and interest joy to serenity and trust to admiration and acceptance according to Plutchik. These basic emotions can combine to give another sense of feelings these combinations are called dyads for example, when joy combines with anticipation optimism is born. When trust combines with fear submission evolves and so forth, we will come to them little later.

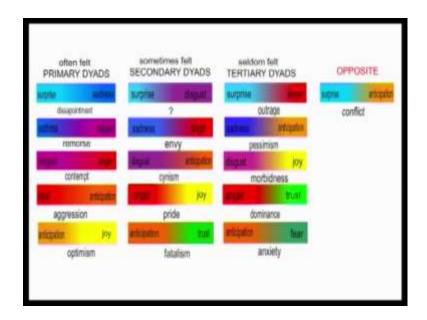
(Refer Slide Time: 10:28)



According to Plutchik joy and trust can combine to generate love trust and fear combines generate submission fear and surprise combine to generate alarm these three are primary dyads and are often felt. Now joy can combine with fear to generate guilt trust can combine with surprise to generate curiosity and fear can combines with sadness to generate despair these are secondary dyads and are sometimes felt. joy can also combine with surprise to generate delight trust with sadness to generate sentimentality and fear with disgust to generate shame these are tertiary dyads and are seldom experienced one, could think of opposite emotions combining together, but these would lead to conflicts.

Let us, now look at other primary dyads surprise and sadness combine to generate disappointment sadness and disgust combine to generate .remorse disgust and anger combines to generate contempt anger and anticipation combine to generate aggression and anticipation and joy combine to generate optimism.

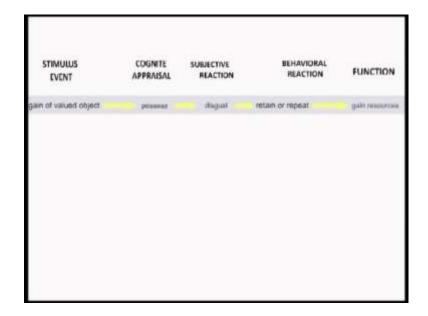
(Refer Slide Time: 11:25)



Let us now look at other secondary dyads sadness and anger combine to generate envy, disgust and anticipation combine to generate cynicism, anger and joy combine to generate pride and anticipation and trust combine to generate fatalism.

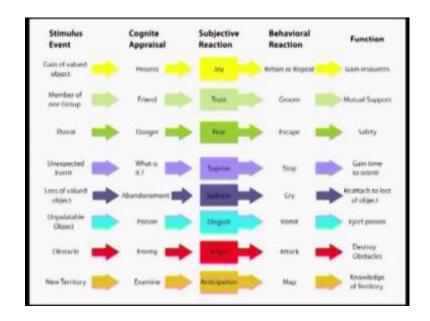
Let us now look at other tertiary dyads surprise and anger combines to generate outrage, sadness and anticipation combine to generate pessimism, disgust and joy combine to generate Morbidness, anger and trust combine to generate dominance and anticipation and fear combine to generate anxiety.

(Refer Slide Time: 12:34)



Another example of opposite emotions combining together is surprise and anticipation as you know these generates conflicts Plutchik has beautifully explained, how the whole chain of events is completed during any emotional state we have an event that provides stimulus this is cognitively appraised, this leads to some subjective reaction it is manifested in some form of behavioral reaction and finally, the function is accomplish you can see certain stimulus on the screen and see this full chain.

(Refer Slide Time: 13:01)



Now, here we are going to look at this stimulus event the cognitive appraisal the subjective reaction the behavioral reaction and the function. Now gain of valued objects is the stimulus events you have to posses it this is the cognitive appraisal you have the subjective reaction, you have the joy, you retain or repeat that is your behavioral reaction and finally, you perform a function that is you gain the resources.

Now, you are member of one group you consider yourself to be a friend this is the cognitive appraisal you have trust towards your group members this is your subjective reaction you groom your behavior accordingly that is your behavioral reaction and the function that it performs is the mutual support you support your members and your team members they support you.

Now, you have threat that is the stimulus event you cognitively appraise that you are in a situation a danger the subjective reaction is that of fear, escape is the behavioral reaction and then the function that you perform is that fine you look for safer options you look towards safety.

Now, you have an unexpected event you just think what is it this is the cognitive appraisal the subjective reaction you are surprised the behavioral reaction, you stop and then you gain time to orient yourself. This is the function that you perform you have loss of valued object you have a sense of abandonment this is your cognitive appraisal you feel sad this is your subjective reaction, you cry because of that feeling that is the behavioral reaction and then reattach to loss or object this is the function that you perform you have an unpalatable object and then the cognitive appraisal you think it could be poison you are disgusted this is the subjective reaction you vomit that is the behavioral reaction and this is how the poison gets ejected this is the function that it performs.

Now, you have an obstacle cognitively you appraise that fine he or she is my enemy the subjective reaction you feel anger the behavioral reaction you attack and this is how you destroy obstacles this is the function that it performs. So, basically when you look at these colored objects the subjective reactions you have joy trust fear surprise sadness disgust and anger and these are considered to be the emotions.

Now, you have new territory you examine them because you examine them what is a part of your cognitive appraisal you have a subjective reaction. You have and feeling of

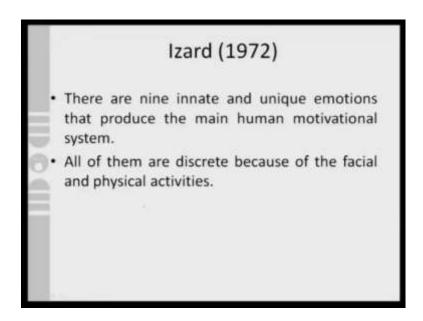
anticipation then finally, you go for a behavioral reaction you map them and then finally, you know the territory you have the knowledge of territory this is the function. That it performs, right now we were talking about the Plutchik theory where you talk about the combination of two of the basic emotions look at this news items.

(Refer Slide Time: 16:02)



What you saw actually, till now is a son who is believing the death of his father a father was assassinated and see the expression on his face and the words that he speak primarily you will get what Plutchik was trying to say, the you can still have the combination of two of the primary emotions the second attempt to a identify basic emotion was made by Izard who said there are nine innate.

(Refer Slide Time: 17:59)



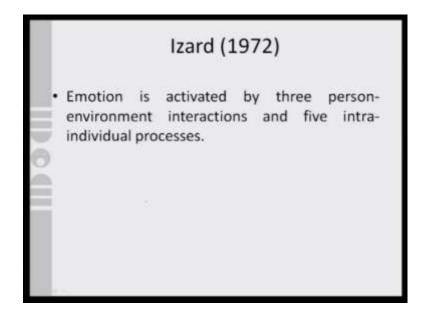
And unique emotions that produce the main human motivational system all of them are discrete because of the facial and physical activities.

(Refer Slide Time: 18:11)



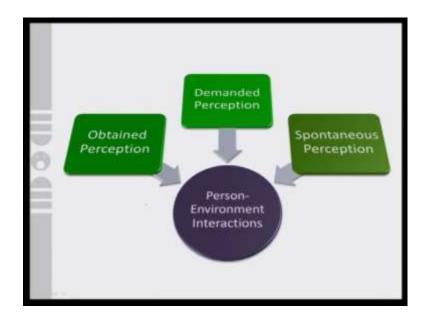
According to Izard interest enjoyment surprise distress disgust anger shame fear and contempt these are the 9 basic emotions. I repeat it once again he said that we have interest enjoyment surprise distress disgust anger shame fear and contempt and these are the nine basic emotions.

(Refer Slide Time: 18:33)



According to izard emotion is activated by three person environment interactions and five types of intra individual processes.

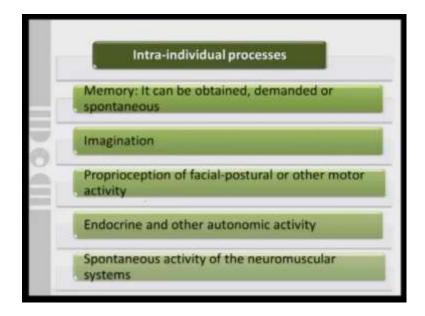
(Refer Slide Time: 18:42)



So, you have the person environment interactions and then obtained perception the demanded perception and the spontaneous perception. So, you can now very easily relate what we discussed in our first module. Where we are talking about the process of sensation and perception the whole thing of assigning meaning to the stimulus that you perceive in the environment that is presented in the environment. How you go for and in-

depth analysis how that perception induces certain bodily changes within you and how that bodily change you try to assign the meaning to it which also in turn facilities the person environment interaction.

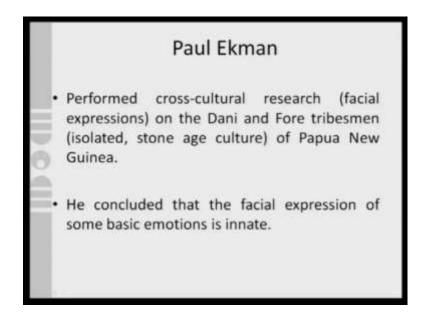
(Refer Slide Time: 19:37)



Now, the 5 different know intra individual process that Izard talk about were memory imagination proprioception the activities of the endocrine and other autonomic activities and spontaneous activity of the neuromuscular systems. So, he said that memory which can either be obtained it could be demanded or it could be spontaneous plays an important role in our interaction how you imagine things the proprioception of facial postural or other motor activities.

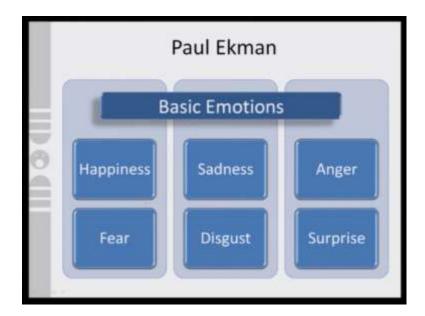
How much is the you functioning and activation of the endocrine and another autonomic functions and then, how spontaneously the neuromuscular system they respond and these factors also would help you have this type of interaction which in turn will try to produce certain type of motivational state. So, basically what Izard said was that we have innate emotional states and the unique of this emotions basically produce the motivational systems also and then, said that the physical activities and the facial activities they are discrete, but basically emotional and motivational states he was trying to propose that they overlap the reason why we took Izard here was that Plutchik has said that there are eight basic emotion Izard says that there are nine basic emotions.

(Refer Slide Time: 21:22)



And then came, the proposition by Paul Ekman. Ekman performed cross cultural research on the Dani and fore tribesmen of Papua New Guinea then, he concluded that there are some basic expressions which are very, very innate.

(Refer Slide Time: 21:36)



And according to Paul Ekman, we just have six basic emotions happiness sadness anger fear disgust and surprise just 6 basic emotions rest all are combination of these emotions.

(Refer Slide Time: 21:53)

### **Basic Emotions**

- Fundamental characteristic that are different from other emotions.
- Specific antecedent events bringing about a given emotion in everybody.
- For example, goal obstruction generates anger.
- · This is true for everybody.

Now, basic emotions basically their fundamental characteristics are different. So, happiness, sadness, disgust, fear, anger, surprise, none of these emotions, their fundamental characteristic will overlap and therefore, specific antecedent events will bring these the emotions of and accordingly the bodily changes, that you see in these emotions might psychologically show you certain type of a pattern, but then in terms of subjective experience they are unique.

Key words - schacter's theory, Plutchik, basic emotions, dyads, Izard, Paul ekman