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

Lecture - 25 Emotions - Basic Emotions

Now that we have discussed basic emotions, let us understand things from two three prospective.

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Basic Emotions

- Each basic emotion is distinctly expressed on the face.
- These expressions are universal.

One, we now know that each basic emotion is distinctly expressed on the face and we also know that because these are basic emotions there. So, there is the possibility of many of these emotions to be considered as universal expressions. Universal expression would mean that irrespective of the culture, the facial expression would by and large remain the same.

So, these six basic emotions which we finally arrived at towards the end of our second lecture; happiness, sadness, fear, anger, surprise, and disgust; these six basic emotions - the facial expressions that represent these emotions they remain the same across the culture. So, if there is universality of expression how do we learn it? Is it that we are biologically programmed to express these emotions. How does this happen?

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Let us now understand how a human infant learns to express through face.

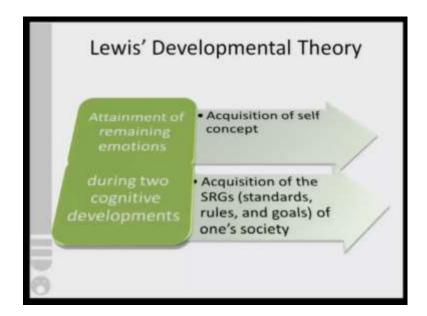
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Emotions in Infants

 Michael Lewis' developmental theory (1993) suggest that infants are endowed with the inborn cognitive capacity to have a subset of emotions such as joy, sadness, fear, anger, surprise and disgust.

Levis proposed a developmental theory suggesting that infants are basically endowed with the inbound cognitive capacity to have a subset of emotions such as joy, sadness, fear, anger, surprise and disgust. So, six basic emotions that we were referring to Lewis' developmental theory say that fine human infants they already have this inbound cognitive capacity. So, what happens?

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Now, this theory further says that to attain the remaining emotions which happen during two cognitive developments. First one acquires self concept, who am I that is the acquisition of the self concept. And two acquisitions of standard rules and goals of the society in which the individual is living, is growing up. So, these standard rules and goals are called SRGs. Lewis' developmental theory says that we acquire one our concept of the self who am I. And two after I acquire who am I, I also acquire the standard rules and goals of my society.

So, that would mean that after acquiring the concept of the self I also understand what my society expects out of me.

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Lewis' Developmental Theory

- For example, emotions such as envy, empathy, embarrassment, pride, and shame can not be experienced without realizing one's own position with respect to others.
- This implies that the two fold cognitive developments are not needed for experiencing and expressing the basic emotions.

For example, if you think of emotions like envy, you are jealous of someone, empathy, embarrassment, pride, shame. Now, these emotions cannot be experienced if you do not do not realise your position with respect to others. So, unless I experience who am I, I acquire this very ability I understand who I am, I cannot be jealous of somebody else. Because, self and the non self the other self these two things I will have to first establish within me and once I establish this within me then only I can have the sense of envy, I can develop jealousy.

If I have a sense of pride, then also I need to understand my position in my society. And then I understand that fine whatever I have acquired is something that the society would really appreciate and this would fill me with the sense of pride. Now this implies that the two full cognitive developments are not needed for experiencing and expressing basic emotions.

Now, basic emotions the surface before achievement of the self consciousness and certain other type of emotions such as embarrassment envy and empathy they may emerge before the integration of the moral system. So, this is an interesting explanation of how infants they develop how to express themselves.

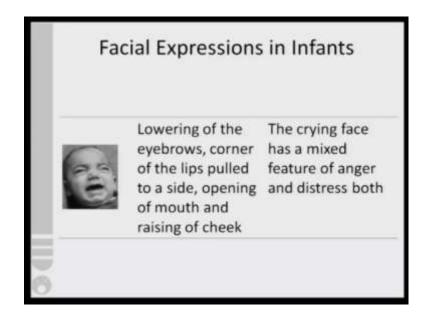
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Facial Expressions in Infants

- It is intricate to draw discrete negative expressions from a crying bout of the infants.
- The infants tend to cry in all negative situations. A close look at the crying face illustrates interesting patterns.

Now, it is intricate to draw the discrete negative expression from certain expression of the child especially, say if you are looking and the crying bout of an infant and if you want to demarcate which expression this is it is very difficult. Now infants usually have been found to cry in all negative situations, but when you look at their facial expression while they cry you will come across a very interesting pattern.

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Now, look at this very expression what you see is lowering of the eyebrows, corners of the lips which gets pulled to a side and opening of mouth and of course this leads to raising of the cheek. Now crying face has a mixed feature of anger and distress.

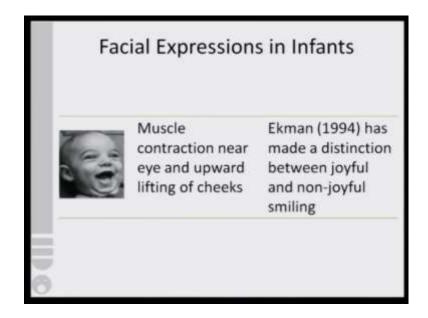
Anger in adults we will consider this to be a basic emotion. Similarly disgust will have a different expression. Here distress and anger both of them they mix up although the child is trying to express the negative feeling.

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Now, depending on certain situations the child might come forward with different sets of expressions. You start looking from the bottom the expression represents weak cry, then the moderate cry, another form of moderate cry and then finally the strong cry.

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Similarly, you can have expression of happiness, where muscle contraction takes place near the eyes and there is an upward lifting of the cheek. Very interestingly Ekman has made a very interesting distinction between the joyful and the non joyful smile. So, it is not that if you smile you are happy there could be non happiness induced smile. So, that is distinction that Ekman has made.

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Now, again the way we were looking at crying look at smile. Right from very strong smile to minimal smile, again strong smile another format of a strong smile and you

realise that the expressions are very very different. So, drawing a common line of distinction is extremely difficult, if you look at their expressions of the infants.

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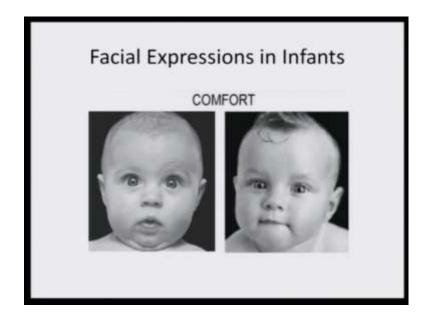
Now, look at distress both these images they represent distress were as you can understand that the facial expression is not exactly the same.

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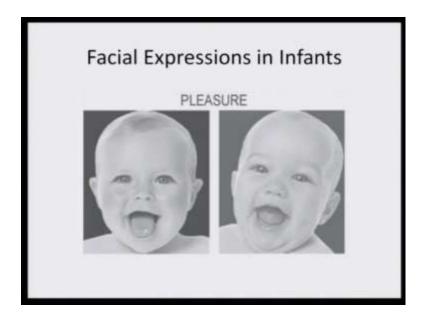
Discomfort for instance.

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Comfort for instance.

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And now see pleasure. There is whole lot of difference if you look at the expressions of human infants. Because a growing child an infant will have a very very close interaction with the mother; so how does the child understand the expression of the mother? Right now what we were doing is that we were looking at the expressions of the infant. Now we are trying to say although this human baby is in the state of infancy how does he or she understand the expression of his or her mother.

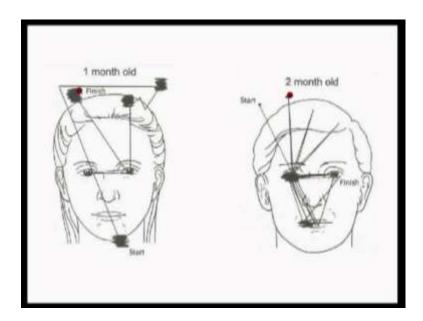
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Infant's Scan Pattern

- · Scan pattern in 1 and 2 months old infants.
- · Eyes and mouth are the primary target.

It has to realise that eyes and mouth these are the two primary locations where the children 1 to 2 month old infants they focus when they look at their mothers. And of course, when they look at their fathers also they look at only these two areas in the face eyes and the mouth. Look at this video.

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Now look here the 1 month old child is looking at the mothers face and then you see right from the start point how the eye fixation changes and finally goes and sticks at some point. In the other image you will see at 2 month old child looking at the father and then you see right from the start point how the fixation points changes and finally it is stops somewhere. Now, this is how the infants they look at their parents.

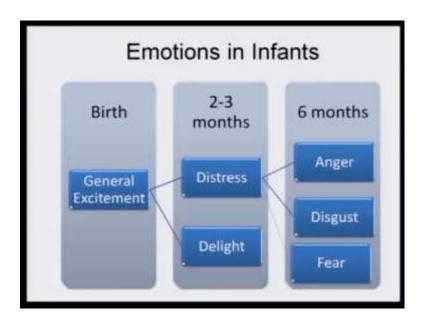
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Emotions in Infants

 Bridges proposed that newly-born babies have undifferentiated emotional expressions.

Bridges proposed that the newly-born human babies they have undifferentiated human emotional expressions which with what you call passage of time gets further differentiated.

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So, according to bridges model at the time of birth child has nothing but only general level of excitement which by the end of second or third month converts into distress and

delight. And this further by the end of the 6 month the child learns how to express anger, disgust and fear which basically is further expansion from the expression of distress.

Now let us understand how emotion and memory they work in the case of children. Before starting our discussion on emotion, we did talk about memory and there also we said that personal significant plays a very important role. Now that emotion which is likely to have more of a personal significance, so how emotion and memory both will work together in the case of human children.

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Between 18-36 months	Use of emotional words in their conversation
3 Years	Identification of emotions and situations provoking them
4 Years	Accurate matching of basic emotions (happy, mad, sad, and surprised) with the correct corresponding facial expressions
6 Years	Children adept to interpreting emotions at 3 years continue to be better

Now, between the age of 18 to 36 months children they use emotional words in their conversations. By the time they are 3 years old they can identify emotions and situations that provoke emotions. In the fourth year they can accurately match the basic emotions with the correct corresponding facial expression. And by the time they are 6 years old they adapt to interpreting these emotional expressions.

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Emotion & Memory in Children

 Emotional memories mostly involve the attainment (happiness) or blocking (sadness, anger) of personal goals in children as well as adults.

Now, emotional memories mostly involve the attainment and blocking of personal goals in children as well as in adults. You remember Zeigarnik effect that we talk about in memory and explanation that Kanungo had given that it is a basically the pleasant and the unpleasant experience which will help you recollect your events, the memory of the event rather than whether you are able to complete it or it was not completed. It is similar to this type of explanation which says that you have at fixed certain goals for yourself whether you are a child or you are an adult.

What is the degree of happiness, how delighted you are when you attain the goal, or how sad or angry you become when the goal that you are trying to achieve is blocked. So, it is the attainment or the blockage. You are moving towards the personal goal that becomes extremely important. And therefore when you start recollecting things from your experience the emotion driven memory would largely have either the issues related to attainment or episodes related to blockage of the personal goals.

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Emotion & Memory in Children

- Children have a better recall of emotional behaviour as compared to emotional labels and non-emotional behaviours.
- For example, memory of an outing with the parents, receiving a gift from the father, and so on.

Children of course they have a better recall of emotional behaviour as compared to emotional labels and non emotional behaviours. For examples the memory for receiving a gift from one of the parents will be better if you have gone for an outing somewhere you will have a better recall of that very event. So, emotional behaviour will always have a better recalling in case of children compared to when you simply use the word that labels of the emotion or if you compare between recollection of non emotional behaviour versus emotional behaviour children by default will always have a better recall of emotional behaviour.

Now what we have discussed till now is that as an infant you grow, as an infant you are endowed with certain capacity to acquire certain emotional expressions, you also look at your parents, you learn how to express yourself, but is it that entire facial expression is only what you call parent centric or is it that there is an influence even of the society. Of course, we have talked about acquisition of SRG's. But besides SRG's say for instance if you learn how to express anger, expression of anger is one aspect how much to be angry, how to express it. Is it that we differ or is it that we have a source from where learn or is it that we are biologically endowed with that capability? Look at this very ad it of course an ad of a product, but we are looking at how human children they imitate, look at this ad.

What did you see in this very video? First, the father shouted at the child and the child reverted back exactly the way the father had expressed his anger. The reason I picked up this very ad was the expression that the child has learnt to show is exactly the same that he had learnt from his father. So, there is the strong possibility that the way human children they express themselves might be guided by the source, the model whom he or she is trying to imitate from the environment.

The other example would be when you look at the beauty contest, where you see that all the winners unequivocally they would express same way look at this very video. This is the expression of feelings when Sushmitha Sen won Miss Universe in 1994. You must have watched many female winners expressing their emotions the same way and this actually represents that how that culture actually influences your expression of emotion.

You saw Sushmitha Sen no, finally what she did was she just tried to hide her part of the face using her hands and this was basically joy of an ultimate order. Now is it that few models express themselves like that because Sushmitha Sen's episodes took place long back. I was searching for the beauty contest winners how they express themselves.

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Look at one of the recent expressions where Miss World 2014 who is from South Africa when she won the medal how did she express herself. It matches the way Sushmitha Sen was expressing herself.

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Now, let us go little back 2012 Miss World winner, who was from China. Now you have noticed from India, China, South Africa all of them expressing themselves the same way. So, this is a strong indicator the way we saw in the case of ad where the son was imitating expressing the way the father expressed, here you find that irrespective of the event and irrespective of the cultural background people in one given profession they express themselves in the same way. So, this is indeed very interesting.

Now this shows two things. One, the fact that we acquired certain rule certain guide lines from our environment that is what is Lewis' Development Theory. Second irrespective of our culture it is the people around us from whom we learnt through the process of imitation. Imitation we had discussed when we were talking about learning that we select role models and we then we imitate our models. The child in the ad actually imitated the father, but in the process of imitation he also learnt how to express his anger and disgust.

Second case irrespective of the cultural background from where you are might be that you have seen that largely the winners in one situation in one profession they express themselves the same way. So, every time when you win Miss World competition irrespective of the cultural background, irrespective of the difference in the SRG that Lewis was talking about we express ourselves the same way.

So, this shows that how human beings right from the state of infancy till when they grow up and then they move ahead in the profession how they learn to express themselves. So,

we will end our third lecture here. In the next lecture we will be talking about specifically the influence of the culture on emotional expression.

Key words - basic emotions, Lewis, developmental theory, facial expressions in infants, emotion and memory in infants