

Psychology of Emotion: Theory and Applications
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Module 2, Lecture 4: Universals and cultural differences in emotions 1

I welcome you all to the fourth lecture of the course Psychology of Emotions-Theory and Applications. So, this is overall fourth lecture and it is the first lecture of module 2. The module 2 is about culture and emotions. In this module, there will be two lectures and primarily we will be talking about the interaction between culture and emotions. How culture can influence or, are there any universal emotions? There are some aspects of emotions which are culture-specific.

All these details we will be talking about in these two lectures. It is the first lecture of module 2 and overall it is the fourth lecture. Both the universal and cultural differences aspects of emotion will be discussed in this module. Before we talk about today's lecture let me give you a brief recap of what we discussed in the last lecture, which was the last lecture of module 1 also.

In the last lecture, we talked about the communication of emotion and the measurement of emotions. In the communication of emotion, we have talked about that, primarily there are two channels of communication of emotion. One is verbal and another is nonverbal. In verbal, generally, we express whatever we want to say through the language. In the nonverbal part, we look at paralinguistic aspects, the communication through paralinguistic aspects and nonverbal channels are kind of looked at.

Communication of emotion or overall communication is not just about what you say but also depends on how you say it, what is your body language, how you express it, what is the tone of saying something. All these aspects are important in the communication of emotion and the communication overall also. In the last lecture, we discussed all these things in detail particularly we discussed nonverbal communication through facial expressions because emotion is very significantly expressed through our face and the muscles of the face, and we have discussed how emotions can be expressed through the face and different researches associated with it. We also talked about how emotion can be expressed through body movements, postures, and so on.

In that context also we have discussed the different empirical evidence associated with it and at the end, we have discussed how emotion is expressed through the voice, particularly the **prosody part** of it where the pitch of the voice, rate of the voice, intensity of the voice and so on. How all these aspects also convey emotion or the different emotions and the

empirical evidence associated with them. Then we have discussed in the last lecture also about the measurement of emotion. In that context, we have discussed that there are three primary ways of measurement of emotion, primarily adopted by the researcher.

One is self-report measures which ask the participants to report their subjective feelings through certain scales or Likert scales like rating scales like 1 to 10, 1 to 5, and so on. Because no one else can detect the subjective aspect of emotion, it is only the concerned person who can report it. That is why it is called a self-report measure where the concerned person reports his or her subjective feelings on a scale, so that, it become measurable.

There are limitations to it and we have discussed all these limitations. Then physiological measures are there because every emotion is associated with certain physiological changes in the body. Some research tries to capture those changes as an aspect of the measurement of emotion. Since these are always associated with emotions, measuring those physiological changes also gives us an idea of what happens when such emotions are experienced. It includes something like even measuring heartbeats, skin conductance, sweating, and so on.

It also includes the measurement of brain waves, and electrical signals in the brain using EEG, fMRI, and so on. We have discussed all these things. These also have their advantages and disadvantages. Then the third one is called behavioral measures where you do not just report or try to measure observable actions associated with the emotions. It may include measuring or reporting the body movement or facial expressions and so on.

Specific software has also been developed like FSC by Paul Ekman and his group which tries to measure different muscle movements and changes in muscle movement using certain software. So, those are also used nowadays to measure the behavioral aspects of emotions. So, all these measures and methodologies have their advantages and disadvantages depending on the situation, and feasibility, people use all these measures. And the best way possible is, if a combination of these measures are used to measure emotions that gives much more validity. These are the things that we have discussed in the last class.

Today we will be discussing the context of culture and emotion. We will be talking primarily about the universal part of it. Is there evidence of universal expression of emotion? We have discussed some of it, but now we will discuss it in more depth here. So, are there universal emotions? Are there universal expressions of emotions in terms of facial expression, in terms of vocal expression, in terms of physiological aspects of emotions? Then we will also discuss, what components of emotion are universal. Is it like some of the emotions are universal or some aspects or components of emotions are

universal? We will be talking about the componential theory of emotion also in this context. Let us start today's lecture.

Because this module is about culture and emotion, the major question that will be addressed here is, do people in different cultures experience similar emotions. Is it like people in different cultures experience emotions very similarly or the experience of emotion or the expression of emotions are different as the culture changes? That is a very significant question to understand because it has a lot of relevance in today's world where globalization is happening and there is an interaction between all cultures. Understanding experiences of emotion across cultures is very significant in today's world particularly where we are no longer living in an isolated world. It is a world now where there is constant interaction among people of different cultures. So, the study of culture and emotion addresses this very important question. This research area is particularly very significant and may have many practical and applied implications.

It will have implications in cross-cultural communications which is very important. It will have many implications in cross-cultural communication when people from different cultures interact in terms of communication. This understanding will be very important in negotiations in business, counseling, organizational behavior, leadership, and so on. Because in the context of organizations also, employees are not just from one culture, there can be people from multiple cultures.

A leader has to understand the perspective of people from different cultures. In that context, cross-cultural understanding of emotion will be very important to lead an organization, to make it productive, and so on. Things like counseling, business negotiation, etc. will have also a lot of implications in today's world in terms of cross-cultural communication or cross-cultural understanding of emotions.

We will look into these aspects in more detail in today's lecture. Throughout history, if you see the history of the study of emotion particularly in the field of psychology and some associated disciplines. The pendulum has constantly swung between two broad paradigms, two broad approaches to how emotions should be looked at. It was constantly moving from one to the other, you know, swinging from one to the other. One is called the universalist perspective, the approach which was given more emphasis.

It is not that they do not agree on other parts of it, but the major focus was on the universalist perspective. One group of researchers is stressing the evolutionary origin of emotions and views them as biologically given and invariant. According to them some of these emotions are universal and they are evolutionary in nature, they are biologically hard-wired in our system. That was the idea of the universalist perspective of emotion. Another school of thought was the social constructionist perspective or theories.

Their focus was more on the nurture part of it, which means the environmental part of it and the cultural part of it. They focus on the cultural processes that shape emotions and assume that emotions differ between cultures. They are focusing more on how cultural processes shape emotions or influence emotions. One of the assumptions was that a lot of these factors would have differential cultural influences and implications. The different cultures will experience emotion, or express emotions differently as per the cultural norms and so on.

These are the two major perspectives where people have been swinging from one to the other and the researchers were going from this side to that side and so on. If I could show it like this, the major perspectives in the context of culture and emotion. One is, as we said is universalist perspective and another is a social constructionist perspective. So, here the idea is that emotions are evolutionary, biologically given, and so on, and invariant across cultures.

The social constructionist perspective, says that cultural processes shape emotions and vary across cultures. These are the two major perspectives, found in the research. Some people are more toward the universalist perspective and some people are more oriented toward the social constructionist perspective.

As you see, both perspectives have very different kinds of assumptions and accordingly, their researches are shaped. Our whole purpose in this module will be to talk about both the perspectives, the pros and cons, the kinds of arguments, and the evidence associated with each of these perspectives. In today's lecture, we will be talking and looking deeper into the universalist perspective, and in the next lecture, we will be talking about primarily the social constructionist perspective of emotions. This is how we will go, we will look at both perspectives in deeper ways and then we will conclude which one is better and how to understand both of these perspectives. We will be focusing more on the universalist perspective in today's lecture.

The question is, are there universal emotions? Now, a researcher who subscribes to the universalist perspective of emotions believes that this is their fundamental assumption or they believe that, regardless of the culture in which one lives, certain emotions are called basic emotions that are experienced by everyone. This is the fundamental assumptions or beliefs or kind of perspective of the universalist researcher or, researcher in the tradition of universalist research or perspective. The thing is that, regardless of culture, some emotions like basic emotions are experienced by everyone in every culture. These are universal.

This is the assumption. The underlying assumption is that basic emotions evolved from the animals and they are passed on because of their adaptive utility, and they are essential for coping with life activities. That is why they are necessary for every human being. They evolved across cultures and that is why they are universal. Anger, for example, protects us from exploitation.

Anger as an emotion has helped us to survive, to protect us, and to defend us. Anger, one of these emotions, kind of helps you to protect yourself from the fight with the enemy and so on. It has an evolutionary and adaptive purpose to it. This will be experienced by people in every culture. This is the assumptions of the universalist perspective.

The most basic emotional theories, most of them we have discussed in some of the earlier lectures. Assume that each basic emotion relates to a certain adaptive value as we have discussed and each of these basic emotions has its own set of distinct characteristics. They can be identified or distinguished from one another because they have distinctive unique characteristics like what events will cause them, and what kind of facial expressions they will have. They will have different facial expressions, they will have different vocal expressions, they will have different physiological indicators, and so on. The experience of each of these basic emotions are not directly measurable. Obviously, this is something that the person experiences within themselves.

In research, measurement mostly focuses on the characteristics that are associated with them, for example, when we experience an emotion, there will be physiological changes, there will be changes in the expressive behavior and this thing can be measured. Most of the researchers have been focusing on these associated changes that happen, they try to measure and make sense out of them. Cross-cultural studies are aimed at providing the universality of basic emotion, relying on observable features of basic emotions. Now, they are mostly focusing on observable features of emotional experiences such as facial and vocal expression, physiological responses, and patterns associated with these basic emotions.

We will now look deeper into these aspects and what kind of evidence are there in the researchers particularly in the context of universalist ideas. Are there universal facial expressions across cultures? That is the thing that we will be looking at now. If you look at one of the earliest works in emotion particularly the concept of basic universal emotion, was Charles Darwin's work. We have already discussed the historical perspective from his book "Expression of Emotions in Man and Animals" published in 1872.

He argued that emotional expression most likely arose because it provided some survival and reproductive advantage to individuals. Some adaptive values and some evolutionary functions were there. That was one of the main reasons why emotion evolved. Animals for example, that respond to danger by making themselves appear larger have a better chance of survival since the change in appearance may deter the attacker. Similarly, in animals as well as in humans some emotions could have advantages which is why they are passed on from generation to generation.

Darwin was one of the first people who looked at facial expressions across cultures at that time with whatever methodology he could do, and whatever evidence he could find out because it was difficult. Traveling was very expensive and it was not possible to travel, unlike today's world. He tried even within that limitation to understand facial expressions

in different cultures. Darwin realized that if facial expressions were inherited from primates, means inherited from animals they should be similar throughout all human cultures. If something is inherited by a species it should be the same across all people.

That was his evolutionary idea. What he did was he used recorded accounts from missionaries and others who had visited other countries. Because at that time missionary organizations were traveling to different parts of the countries to educate them and so on. Darwin put his theory to the test, he tried to test this assumption of whether people express emotions similarly in different countries and cultures. At that time photography was also very rare and expensive, those technologies were not there or it was there in a very rudimentary form. So, Darwin sent letters to anyone he knew who was staying in other countries residing abroad and asked them to describe normal facial expressions of various emotions.

How people in those countries express different emotions normally and inquiring as to whether people in that culture exhibited those emotions similarly. Whether they are expressing those emotions very similar to their countries or are there any differences. He was writing letters to those people whom he knew were staying abroad and asking them, how people in those countries express emotion. He was trying to understand if it is the same across countries and cultures or different. According to Darwin's correspondence, from whatever he could gather from those correspondences, he found people across the world exhibited a lot of wide range of emotions in a similar way.

This is what he found from the correspondence. For example, some of the things he found that they open their jaws occasionally as well as their wide-open eye, when startled or amazed. For example, whenever somebody experiences startled, amazed, or surprised emotion, they open their jaws as well as make their eye wide open. This was associated with amazed, startled, or surprised kind of emotion. They squint their faces when perplexed or puzzled, people cover their faces when humiliated by using their hands. These are some of the evidence he could gather which he found were very similar to their culture, people from all different countries express these emotions very similarly.

This was the result he found. He interestingly found also that this facial expression is displayed by some people who were born blind and deaf, which is very interesting because if somebody is born blind and deaf he cannot mimic others by looking at others' expression of emotion. When we see others we learn by looking at others, but if you are blind from birth you have not seen any other people expressing those emotions. Even people who are blind or deaf from birth also displayed this facial expression which is astonishing, given that they never knew what it feels like to be seen or to see something. That means this is something very biologically hard-wired thing, this is what he found.

About a century later some other Austrian biologist, it is very difficult to pronounce his name, Irenaeus Eibl-Eibesfeldt is the name of the researcher. He visited numerous remote cultures and took pictures because at that time at least photography was possible of people's facial expressions from diverse cultures. He also found at least from his account, he also noted striking cross-cultural similarities in the facial expression of emotion. Most of these

emotions are very similarly expressed by people in different cultures. In the early 20th century dominant social sciences theories emphasize substantial environmental effects.

In the early 20th century some people started focusing on the role of culture in shaping emotion when that social constructionist perspective slowly started coming in. They also emphasize environmental effects more than the universal perspective. In the mid-20th century, they also looked at a lot of ethnographic accounts of cultural disparities in expression and these things. We will be discussing them in a little bit more detail in the next lecture. Some of this also started coming in from the early 20th century to the mid-20th century, some social constructionist researchers also came into the picture.

However, in the 1960s for this whole universalist perspective, the momentum again started with the research of Paul Ekman, Carol Izzard, and some other basic emotional theorists who went out to test Darwin's hypothesis, that if something is evolutionary, adaptive, or something is biologically driven it should be same across cultures. They tried to test it in the modern world with more evidence of Darwin's hypothesis. According to their hypothesis, diverse cultures should agree on the meaning of a few basic facial expressions, if not all emotions then at least some basic emotions. They use photographs from Tompkins, Sylvan Tompkins is another prominent researcher of the basic emotional model.

Here is the collection of facial expressions of basic emotions in their research. This was the kind of photograph they used from the Tompkins collection. These are the six basic emotions, surprise, fear, anger, disgust, sadness, and so on. These are the six basic photographs that were used in their research. What they did was, they shot photographs of people expressing basic emotions such as anger, disgust, fear, happiness, sadness, and surprise, and asked participants to identify the emotions in the photograph and also asked people from different cultures to identify those emotions.

Several versions of these studies have been undertaken, not one study but many versions of these studies have been undertaken in nations all over the world. To include people from diverse cultures, they even included some participants in some studies who resided in small secluded rural communities where they rarely encountered people from the Western world and did not even watch television and movies.

They are not exposed to the modern world, like even remote native people who are not exposed to any of this modern media. What happens is when even some people or some communities live very remotely, but if they are exposed to media, they may know how people from other cultures react, so that can influence their judgment. But if people are very secluded and are not exposed to those different media, then you can understand that this is a pure emotion experienced by those particular communities.

That is why it was needed to take people from such communities or native people who are not exposed to these Western cultures and so on. A lot of versions of these studies have

been undertaken from different countries of the world including people from small secluded rural communities who generally have not encountered the Western world. Now, most of these studies' results reveal that the majority of these individuals across different cultures interpret specific emotional experiences very similarly. They could identify these basic emotions across cultures including those secluded people in different cultures.

That is one of the evidence they found, which also shows that at least some basic emotions are universal in that sense. However, they also noted that to a certain degree, individuals tend to have a greater proficiency in recognizing expression from their ethnic group compared to those of other groups. They also found that this is a very subtle understanding or finding that when people are exposed to the expression of emotion from their cultural group, they are much better at identifying them as compared to people from other cultures who express those emotions.

Even though they could identify but, their identification was much better when the photography or expression was from the people from their own culture or own ethnic group. In that sense, some cultural bias is there that, they are much better because they are more familiar with their own culture. But still, they could understand expressions from other cultures. This is one of the works done by Russell in 1994, who did a pairing from a lot of these studies. They found how Western and non-Western people, like people from non-Western cultures, what is the accuracy of matching those emotions or identifying those emotions from the photographs and other things.

This graph was taken from the Russell 1994 study, which shows the average across many studies. This is the result from many studies where averages are taken, it almost included 2000 people in the sample. If you see all these emotions like happiness, surprise, sadness, fear, disgust, and anger, you can see mean accuracies where almost all Western and non-Western people have very similar accuracies. Obviously, the Western had little higher accuracies, but people from other cultures also had almost very similar comparable accuracies. However, people also pointed out some possible limitations were also there in the studies including Darwin's research which was obviously, as it was much earlier.

He did whatever was possible at that time. Some people also criticized in the sense that the images that were used in these studies were extremely strong representations of each of these emotions in terms of facial expressions used in the studies. That is why the accuracy was very high because people could understand those expressions because these are very strongly expressed which tend to increase with these pictures. Maybe in real life not all the time people use such strong expressions in that sense, people also have some reservations that may be high accuracies were reported because of such strong depiction in the pictures. Some people even criticize some of the procedures, but we will not go into detail about that.

Measuring people's accuracy in identifying facial expressions is difficult as the results vary

depending on the procedural details. As the procedure of the experiment changes, the accuracy of how you measure that also keeps changing, sometimes comparing could be misleading in some of these contexts. These are some of the criticisms of those studies but obviously, no study is perfect some limitations are there.

However, it is clear that various facial expression conveys essentially the same meaning from culture to culture, at least this is very clear. A lot of the studies indicate that meaning was kind of very similar for some of these basic emotions across cultures. Many scientists view this finding as at least giving some proof that humans have a few universal emotions or certain templates of emotions for generating and interpreting certain facial expressions. At least it gives some evidence of the universal presence of some emotions particularly some of the basic emotions across cultures.

This is about facial expression and some evidence of it. Now, we will talk about whether are there universal vocal expressions, when people from different cultures express emotion in their vocals, when they say something the vocalization part of it, is it also universally the same or are there differences in it? Let us see some of the research evidence. Research on the vocal expression of emotion is less compared obviously, vocal expression the researches are less as compared to most of the studies focused on facial expression because it was easier to do in terms of collection of data and so on. Vocal expression research is there, but comparatively less because of difficulty in finding real-life records of vocal expression of specific emotions. Few studies on the vocal expression of emotion have also led to some support for cross-cultural similarity in expression, some evidence is there.

Let's see some of these evidence. This is one of the studies done in 2001 by Scherer and colleagues. They did a study on vocal emotional portrays of anger, sadness, fear, joy, and some neutral voices delivered by some professional actors in nine countries across Europe, the United States, and Asia. This was the study, it is a large-scale study where certain actors portrayed those emotions in their voices and the typical basic emotions of anger, sadness, fear, joy, and some neutral voices, and the samples were used across nine countries of Europe, the United States, and Asia.

Different cultures, and different countries; the goal or the purpose of this study was to test the hypothesis that vocal expression of emotions may be reliably recognized by members of other cultures. The idea is that if vocal expressions are universal, they should be identified by people from all these countries if we consider them as universal. That was the hypothesis. Now, the result of the research shows that overall accuracy across different countries was around 66 percent which is good in some sense because it is at least above 50 percent.

Although accuracy was better than chance. So, 66 percent means it is not because of the chance, at least some reliability is there. There were significant variances from 74 percent in Germany. Some country to country there were certain variations, like 74 percent in Germany to 52 percent in Indonesia. In some countries, like this accuracy was much higher

in Germany because the actors themselves were from Germany.

Probably it was much higher and it was much less, like 52 percent in Indonesia. So, there were differences across countries also. The result also shows the patterns of confusion were remarkably similar across all countries. The confusion and the problems that arose in different countries were also very similar. This finding at least implies that similar inferences rule from vocal expressions that exist across cultures. At least some evidence shows that certain similarities in understanding and expression of vocal expression were there across cultures.

Although it was not like 100 percent or something like that. Bryant and Barrett in 2008, also did a study to examine the perception of vocal emotional expression across cultures, but they focused on a culture that had very little exposure to the sources of emotional stimuli such as mass media. They also did a study, but this time they studied only cultures that are very exclusive remote cultures, where they had very little exposure to mass media and understanding of other world or other countries.

It was Shuar, a hunter horticulturalist from Amazonian Ecuador. This is a kind of native tribe in Amazonian Ecuador and these people, the researcher tried to examine the perception of vocal emotional expression. The researcher found that these people also could identify happy, angry, fearful, and sad vocalizations produced by American native English speakers. When American native English speaker expressed this emotion in their vocab voice using some sentences, by matching emotional, spoken utterances of emotional expression depicted in the pictured faces. It was like they had to match certain faces or pictures depicting certain emotions and the voices expressing certain emotions.

They had to match whether this picture expressing emotion is similar to the emotion expressed in the voice. That matching exercise was there and they could see that these people also could identify some of these basic emotions in the vocalization. These people also perform almost similar to English speakers who heard the same phrases while they were content-filtered, almost similarly. These findings at least support the concept that vocal emotional responses of basic effective categories occur in comparable ways across cultures. At least this provides some evidence that some of these basic emotions and the way they are vocalized are comparable across cultures.

In another experiment, Sauter and her Colleagues in 2009, also explore about the recognition of nonverbal emotional vocalization like screams and laughs in two distinct cultures. In nonverbal emotional vocalization, you are not speaking any sentences or anything, but in certain vocalizations where there are no words like screams and laughs that also communicate certain emotions. In this study, they were trying to understand whether people can recognize nonverbal vocalization in different cultures. Individuals from rural culturally isolated Namibian settlements, again very isolated communities were used and compared with the Western participants.

Here the procedure was something like a participant listens to a short emotional story, so

a short emotional story was told to the participant portraying an event that triggers an emotion. That short story had an emotional event such as a person being very upset because of close relative has died, like some deaths of some person and the associated emotions were there in those stories. Now, they played two vocalization sounds after confirming that this participant comprehended the intended emotion of the story. The researcher made sure that they understood this story and the emotions behind it and then two vocalization sounds were made, not sentences, but sounds were made or played. It was recorded earlier by some professionals.

They were asked if one of the sounds was similar to the emotion of the story and one was not. The participant had to match which one was similar to the story's emotion. One was similar to the emotion describing the story while the other was a distraction, it was something else. The participants were asked to choose which of the two vocalizations best represented the emotion of the story. If this emotion of the story was sadness, one of the vocalizations that was played was sad vocalization and the other was some other emotion.

They had to match which one matched with the story. That was the task. English sounds were from previously validated sets of nonverbal vocalizations of emotion, some sets of validated emotion vocalizations were already there. They took those vocalizations produced by two males and two female British-speaking English-speaking adults. Himba sound means sounds from Namibia, their native language also produced by five males and six female Himba adults from their communities and were selected in an equivalent way to English stimuli. From both cultures, people produce those sounds. In that study, they found that vocalization related to some of these basic emotions or fundamental emotions like anger, disgust, fear, joy, sadness, and surprise were detected in both cultures.

Bi-directionally when the speakers were from that community that is, when Himba sounds from Himba language-speaking people made sounds, western people could identify. Bi-directional means, when Western people made those sounds that native people could identify. Bi-directionally they could identify those basic emotions. In contrast, a set of additional emotions was only identified inside the cultural boundaries and not across them. However, beyond those basic emotions, some other emotional sounds that were produced were not identified by people from other cultures.

If it was produced by a Western person it was not identified by the native people. When native people produce those emotions western people cannot identify. That kind of identification was much less. It was only identified within those cultural boundaries when it was produced by people from their own culture, not across them. Findings show that mostly negative emotion vocalizations were recognized much better way across cultures whereas, the majority of the positive emotions were expressed using culture-specific signals. The identification was much stronger in the negative emotions vocalization particularly as they could identify the vocalization of negative emotions much better way across cultures.

However, similar was not there in the case of positive emotions. In positive emotions, people could identify more from their culture-specific signals. This was some of the

evidence of vocalization across cultures. There is some evidence, but it was not like perfect match. Let us see, what significant observations we get from these studies and many other studies also. These are only some significant studies I have discussed, there are other studies also. What are the significant observations from these studies? One thing is the facial and vocal recognition experiment, I am now taking both face and vocal recognition experiments across cultures, which reveal that some cross-cultural similarity is there for the basic emotions.

For basic emotions, people from across cultures identified at least some of these basic emotions. There is some cross-cultural validity. However, there are cultural differences also observed as well as because the accuracy was not 100 percent same across cultures. So, some cultural variation was also there. People from all cultures correctly identified some facial and vocal emotions above chance, some of these basic emotions, but the percentages of correct identification varied greatly from 20 to 95 percent from study to study based on both culture and emotion together.

So, both aspects were there. Some of the facial and vocal expressions were above chance, identified particularly for the basic emotions. However, this identification and the accuracy of that identification varied from study to study. In some, it was from 20 and in some cases even 95 percent. It was not 100 percent agreement in all these studies. There was also evidence of in-group advantage means within cultural advantage which means that people from the same culture were always better at recognizing facial expressions. It is always seen that people can identify the facial or vocal expressions from their own culture much better than the outside, that was also observed.

In-group advantage means this. Perceivers who had been exposed to the sender's culture or whose culture was similar to the sender's culture also performed better. When a person is exposed to a particular culture or they have similarities to the other culture then the accuracy also increases. That was also the in-group advantage that was seen in a lot of these studies. Now, come to the physiological aspect of emotion. Are there any evidence of the universal physiological impact of emotion, is it like same across cultures or there are differences?

This is another area where some researches were done. Do people in different cultures show similar physiological responses in response to the same emotional experience? That means, when somebody is fearful the kind of physiological changes that happen like, the heartbeat increases and so on, is it the same across all cultures or there are differences? Some researchers have tried to address this, let us see. Levinson, Ekman, and Friesen in 1990, conducted one of the first studies involving American university students where they tried to measure the physiological aspect of emotion. The participant in the study displayed diverse patterns of autonomic nervous system reactivity when they arranged their faces into displays of distinct emotional facial expressions.

Here the case was like this, the students were asked to display certain specific emotions in their faces, and then physiological measures were recorded in response to those emotional expressions. The idea was that, when they smile what physiological changes happen, and when they have angry facial expressions what physiological changes happen in terms of the autonomic nervous system and others? While they smiled with joy, for example, they showed a distinct pattern of heart rate and skin conduction. All these distinct patterns were noted in detail, like skin conductance, heart rate, finger warmth, muscular activity, and so on.

Now, this same study was repeated several years later in Indonesia. The data from Western people, and American participants was already there. The same study was done in another culture in Indonesia, in another country Minangkabau men and from western Sumatra as participants from Indonesia, to test whether this was the same in the people of Indonesia also. A similar method was applied here also. Experimenta-guided muscular contraction approach was employed once more to elicit recognizable facial expressions of emotion. A similar methodology was applied and they measured some of the parameters like heart rate, finger temperature, skin conductance, finger pulse, transmission time, finger pulse, and so on.

Diverse measures of physiological parameters were noted down. The physiological responses of these samples were very similar to the Americans that were done earlier. Only two physiological parameters differed, but most of the physiological parameters were the same. This shows some cross-cultural similarity in the physiology of emotion, at least it was shown in these two cultures. In another study, Tsai and Levinson investigated some physiological similarities between East Asia and European American couples during emotional states.

Again the couples from East Asia and European Americans were included as study participants. Here is how it was done, the couples got engaged in baseline neutral talk, they were just neutrally talking, and their physiological sub-parameters were measured as a baseline measure. In normal neutral talking nothing emotional was there. In the laboratory when they are talking physiological monitoring with the equipment was done. Then after some time, it was followed by a discussion of the strongest area of conflict.

Emotion was induced and how it was induced? They were asked to discuss conflicts in their relationship. That is an emotion-laden discussion. During the conversation, the self-report as well as physiological measures of emotions were evaluated through instruments, physiological measures were constantly monitored and their self-report was also taken. The result shows that while conflict conversation was substantially more emotional which is commonsensical, it should be more emotional than the baseline discussion, which was neutral as shown in both measures.

They interestingly found physiological changes did not differ by national group. In fact, Self-report of emotions also did not differ significantly. Interestingly, for people from different cultures, very similar measurements came out while they were included or while

they were engaged in emotional discussion. Self-report was also very similar. This also indicates some cross-cultural similarity in terms of physiological measures.

For every study, there will be some limitations, no study is perfect, and some criticisms are there for these studies also. For example, it is unclear what cross-cultural similarity in physiological response means. First of all, the physiological response is not even clear for most of the emotions. Then comparing with the other cultures may not make much sense, according to some people, given that many meta-analyses or research showed distinct physiological responses associated with the emotions. But, at least it shows that the response patterns are very similar across cultures, even though we can say that there is a lack of evidence of specific physiological responses to all these basic emotions. We can say there is evidence, but it may not be very strong. Overall you can say some weak evidence is there which indicates some similarities in some cultures. More studies probably would be required in this area.

Now, if you see most of these studies whatever we have discussed till now are about seeing whether particular emotions, basic emotions, or some emotions are similarly experienced or expressed across cultures. The focus was given to the emotions, particular emotions that are there in every different culture. Now, there is another group of researchers or another kind of perspective taken by some researchers. Rather than looking at emotions themselves, they are looking at what component of emotion could be universal, rather than looking at which emotions are universally there. It is also possible that some components of emotions are universal and some components are not. This is called as componential theory of emotion. Some researchers have shifted away from this perspective from the theory of universal emotion and moved towards focusing on the features of components of emotion that are the same across cultures.

It is possible that some aspects of emotions could be universal and some may not be universal because evidence is not perfect. This theorist looks at the component part of emotion, so let's see what they are looking at. The componential theory is another school of thought that focuses on the components of emotional experience. When we experience emotion there are different components to it. According to this theory, the emotional experience can be examined in terms of more fundamental and universal emotional components. The link between this component and emotional experience is universal. When the same set of components occurs across cultures the same emotional experiences arise. So, component means, what leads to certain emotions; let's say it could be one component, when you feel joy what causes joy.

This is one component associated with the emotions. When this component is present, the emotion will arise. This is the link between one component to the other component. There could be other components associated with it. Rather than just looking at emotion itself there could be many factors associated with those emotions. Those are called components. The focus was on whether those components are universal or not. A lot of cross-cultural research in this area is contented, particularly on two components of emotion, one is called

appraisals and another one is called action readiness.

Let us see what are these two components. These two components mean that they are associated with every emotion. There will be an appraisal aspect of emotions, there will be an action readiness aspect to every emotion. These are components parts or aspects of emotion, like every emotion will be associated with them. Rather than looking at emotion itself now, they are focusing on whether these components are universal or not.

That was the difference in the approach from the earlier studies. Appraisal means how you assess or interpret a situation because the cognitive theories of emotion if you look at whatever we have discussed, they focus on appraisals. They say that the appraisal is the primary component, first, you judge a situation, and then emotion arises and physiological changes are triggered. When you see a situation you judge whether it is a dangerous situation, it is a neutral situation, it is a happy situation, a positive situation, or a negative situation.

You judge first, then emotion happens accordingly. If you judge that this is a dangerous situation, fear will arise. This interpretation is called appraisal. It is the assessment, meaning, and relevance of a particular situation of the individual, and it is typically represented as a pattern of outcomes on several dimensions. The appraisal could be positive, it could be negative, could be based on harmful etcetera, and so on. All this interpretation that we do of a situation is called appraisal and every emotion is triggered by those interpretations, based on interpretation whatever kind of interpretation you will do, accordingly, emotion will happen. Action readiness, on the other hand, is about the behavioral component of the emotion which means whenever we experience an emotion there will be some behavioral part of it or motivational part to it which will propel a person to move in a certain direction.

When you are fearful, you may try to run away. When you are joyful probably you will expand and try to participate in something. There is a tendency for action associated with different emotions. That is called action readiness. It refers to the motivated goal in the situation and is typically expressed as a desire to act in a particular way. Whenever we experience an emotion, there is a tendency also associated with it, to act in a certain way that is, either to move away or move against, or act aggressively etcetera.

All these action tendencies will be associated with emotion. Every emotion will have some action tendencies and every emotion will have some appraisal part to it. These are components of emotion and not the emotions themselves. These are the triggers or associated aspects of emotions. Some researchers try to see whether these emotions are universal or not.

Every emotion will have this component whether these are similar across cultures or not. That was the main idea in the componential theory of emotion. Is there evidence of similarity in the appraisal of emotion or is it like when we experience happiness or joy the appraisal is similar across all cultures? Similarly, when we judge a situation, then only happiness or joy arises or when we experience fear, the appraisal is very similar to the

situation. Let us see the evidence. Again Scherer has done a cross-cultural study to explore whether a particular emotion is associated with the same appraisal in different cultures.

That was the focus. He took his data from participants from 37 nations. It is a very large-scale study of 5 continents. The participants from 37 nations on 5 continents were asked to recall a time when they felt each of the following emotions. The participants were asked to recall a time when they experienced joy and when they experienced anger. It was done step by step, and then they were asked. For each emotion, there are certain other questions like fear, sadness, disgust, shame, and guilt. This emotion was used to see whether the appraisal part of it is associated similarly across cultures.

37 countries from 5 continents is a very large scale study and it means something. The participants were asked to remember a time when they experienced these emotions and then they were asked to describe a situation in which they felt these emotions and were asked to describe what was the situation when they felt these emotions. In what situation do they experience these emotions, rate this situation, and then judge the situation on these dimensions? These are all appraisal dimensions. How do you judge a situation, is it a novel, expected situation, or unexpected situation, is it a pleasant situation, or an unpleasant situation, is it a goal conducive situation or not, is it a fair situation or an unfair situation, who was responsible in that situation; is it oneself or someone else, what kind of coping you have done, how much control the participant felt in that situation, whether it was totally out of your control or you had control of the situation, was there any moral aspect associated with it for example, many time we may feel shame and guilt, morality it maybe associated; if you did something immoral then shame and guilt may happen, did the situation has a moral aspect, like whether it had a moral aspect or not, was it relevant to your self-concept and so on. All these are appraisal dimensions, how do you judge a situation; you can judge a situation using all these dimensions.

They are particularly looking at the judgment of the situation on these dimensions, the appraisal part of it. These are all appraisals. They were asked to remember a situation when they felt these basic emotions and then they were asked what was the situation where they experienced this situation, what was the situation when they felt very joyful last time or whenever it is, just this situation, what was the nature of that situation, was it very novel or new situation or was it an expected situation like this. All these questions were asked to understand different appraisals. The researcher then investigated the participants throughout the world, whether this appraisal dimension was similar or not, when somebody felt joyful the situational interpretation was the same or not, that was the objective. The result was shown in some of these figures, you can see some of these graphs.

If you see these different lines, these are different lines from different nations. This is for joy. These are all appraisal dimension, if you see these are all appraisal dimensions. If you see the joy it was very similar, every nation has talked about it that expectedness was high, unpleasantness was very low, goal obstruction, unfairness, external causation, coping ability, immorality, self-consistency. All these appraisals were similarly done when persons experienced joy or happiness, people from all the cultures in this particular study reported the situation or the nature of the situation was very similar for all of them, which

triggered joy. This is for joy; for other emotions, the agreement was not that high, for shame it was different for different countries. The pattern was almost similar in some cases, but there were differences as you can see different lines represent different nations or different countries. Anger was also similar, but there were some differences. It was for guilt, it is for anger, this one is for shame; it was not like joy where it was very similar, but there are differences here, but similarities are also there.

For sadness, you can see here, for disgust and, for fear. Here pattern is also very similar. This was the result they found. What was the takeaway of this experiment? Overall this study demonstrated that certain appraisal patterns are related to the same emotion. Certain appraisals were very similarly done like in the case of joy, the commonalities between regions were far greater than the differences in the appraisal pattern, that best matched in a given situation, differences were there but commonalities were higher at the higher side. People for example, reported being joyful in response to the events like which event led to joyful experiences, it was very similarly explained by every people from every culture. It was mostly in a situation that was somewhat expected, very pleasant situation, consistent with their goals, certain goals they wanted to achieve and it was achieved. It was a fair situation and made them feel good about themselves. This was the appraisal of the situation that led to joy and it was similar across cultures. Although the overall pattern of similarity in appraisal across cultures was impressive, it is equally noteworthy to see that there are cultural variations also because another diagram you can see, it was not exactly matching.

Some differences were also there. In terms of dimension people differ, people from different cultures frequently disagree regarding the role of morality in the evaluation of emotion. The morality dimension was there in the appraisal, whether the situation is moral or immoral and whether you feel joy or shame when it is morally immoral. There are a lot of cultural variations in the dimensions of morality like what is considered as moral and what is considered as immoral, there were different interpretations in different cultures. A lot of differences were found. Situations producing the most pleasant feelings were regarded as highly moral by African participants, for example, you can see the differences in African participants' pleasant feelings were regarded as highly immoral; the situation that created it, but more morally acceptable by Latin American participants with people from other regions falling somewhere in between or in the middle. These were the extremes; on one extreme was an African participant, and on another was a Latin American participant in terms of moral dimension. Situations producing unpleasant feelings were regarded as highly immoral by Africans but more morally acceptable by Latin Americans and other participants were somewhere in the middle.

Compared to this, participants gave nearly identical ratings on coping ability dimensions. In this situation, the coping ability, or the ability to deal with a situation for each emotional situation, was very similar in all the cultures. The perception of what is and what is not moral was very different in different cultures. This is an area where a lot of differences were observed. The findings of this study imply that similar to facial expressions, we have seen this in the facial expression; most of the world displays appraisal profiles that are very

similar appraisal profile, especially associated with some distinct emotions.

Similar to facial expressions, cross-cultural agreement is not perfect. Here also everybody does not agree on everything. There was some agreement and some disagreement. Individuals from other cultures tend to agree more strongly on some aspects of appraisal than others. The patterns of results are very similar across different expressions of emotion like facial expression, and voice expression. Even in this case of appraisal, there are similarities, but there are dissimilarities also. Now, are there any cross-cultural similarities in action readiness, the another component of emotion that we talked about is that every emotion is associated with some action tendencies. Either you want to move towards or, move against but some movement will happen with all emotions. Is it like the emotional movement tendencies are the same across cultures or it is different?

Very few studies are available on action tendencies. There is some evidence suggesting that some core action readiness dimensions such as moving away, moving towards, or moving against the object of emotions can discriminate among emotions. These action tendencies typically include moving away for example, when you are afraid you want to move away, move towards and move against probably during anger, and so on. You want to move against it. This dimension reflects the action readiness aspect of it. Are these similar for all emotions across cultures? Not much empirical evidence is available in this direction, but some cross-cultural studies show that shame has been associated with the urge to disappear. Whenever people experience shame, it is associated with wanting to disappear from the situation. It is very similar across cultures. Whenever you experience shame you want to run away from that situation, you want to disappear. That is an action tendency associated with this emotion and is very similar across cultures. Not much evidence is available on this large-scale study, at least I could not find much in this direction.

Some evidence could be there; some evidence at least shows that action tendencies of some emotions could be very similar. However, more research is necessary to make any conclusion in this direction. Studies suggest that there may be some similar pattern of appraisal and action readiness across cultures. Overall there is some evidence for cross-cultural similarity in the expression of basic emotions in every expression like facial expression or voice and so on. However, the cross-cultural agreement is not perfect. In all the evidence it is clear that there are some similarities between these basic emotions in terms of expression, in terms of appraisal, in terms of action readiness, but agreement is not perfect. Some culture-specific dimensions of the expression of emotions are always there and have been reported in most of these studies.

What are those cultural differences and how does culture shape those differences? We will discuss all these details in the next lecture. In the next lecture, we will particularly deal with, even though there are some similarities why every study found some cultural differences. In the next study, we will look at the evidence of cultural differences and how

culture shapes those differences, why there are differences and how can we explain those differences. That will be the focus of the next lecture where we will be dealing with the role of culture in shaping emotions. With this, I will end today's lecture. Thank you.