Psychology of Emotion: Theory and Applications Professor Dilwar Hussain Department of Humanities and Social Sciences Indian Institute of Technology, Guwahati Module 5, Lecture 12: Happiness and Subjective Well-being 2

I welcome you all to lecture number 12 of the course titled Psychology of Emotion, Theory, and Applications. We are discussing module 5 of this course and module 5 is about Positive Emotions and Happiness. This is the third lecture of the module 5. In the first two lectures, we discussed positive emotions and then we discussed the concept of happiness and subjective well-being part 1. Today we will be talking about happiness and subjective well-being in part 2. Before we talk about today's lecture, a brief recap of the

In the last lecture, we talked about the concept of happiness and we discussed that happiness could be defined in various ways. But when it comes to research and academic disciplines like psychology or positive psychology, happiness has been defined in a very specific way where happiness is technically called subjective well-being. The word happiness is generally avoided because of too many layman connotations associated with it. Happiness or subjective well-being is measured in terms of life satisfaction plus emotions, both positive and negative emotions.

The idea is higher frequency of positive emotions and a higher score in life satisfaction mean more happiness or subjective well-being. That is the main way it is measured in psychology and it is mostly measured using self-writing skills where people report their own subjective experiences. Then we discussed Ruth Veenhoven's model of happiness where we discussed the different categories associated with the quality of life he proposed and in that context, he talked about life satisfaction as one of the major components where focus should be given to understanding policy implications. According to this model, life satisfaction is associated with the whole life like how you judge your life as a whole in an enduring way and not just short-term today's feelings or the next day's feelings but it is enduring ways in general about how you feel or judge your life. According to this model, it is very significant for policy implications and other applied of life satisfaction. aspects of the concept

Then we discussed the concept of effective forecasting where we discussed that we keep on predicting the emotional consequences of events in the future and many times we make certain errors while predicting the emotional consequences of future events. That error particularly is called impact bias, where we typically overestimate the intensity and duration of emotional consequences of certain events in the future. It may be positive

events or negative events, we generally overestimate the emotional consequence, we exaggerate it like, if it is a positive event we exaggerate the positive emotion associated with certain events in the future. If it is negative, we exaggerate the negativity associated with it in the future and we have discussed the various causes behind it in the last lecture. Today we will be talking about the concept of happiness and how is it possible to enhance happiness or what factors contribute to happiness in our lives through a model called as sustainable happiness model. Let us see or start today's lecture.

There is a model proposed by Lyubomirsky and her colleagues in 2005, called a sustainable happiness model. This is a model which talks about three major determinants of happiness. Whatever happiness or human happiness in whatever intensity or duration we experience, is determined by three major factors. The first factor according to this model is called a genetic set point, then the second life circumstances, and the third factor is called intentional activities. We will see what these three factors are. One is genetics, life circumstances that we find ourselves in, and intentional activities. We will see each of

They provided certain percentages of the contribution of each of these factors in our lives. They took some approximate percentages from different research across the population and they proposed that about 50 percent of the variance of our happiness in our life could be contributed by genetic set point, about 10 percent by life circumstances, and the remaining 40 percent could be accounted by the different intentional activities that we do in our life. They used a pie chart to show this. The pie charts somehow look like this. Here it shows the genetic set point that contributes around 50 percent, life circumstances 10 percent, and intentional activities 40 percent. These are approximate indications, exact percentages may not be strictly determined like this, but these are approximate based on some research evidence across the population, they proposed this model.

Let us see what these are. What means genetic set point? It means a lot of things in our life are determined by genes we get from our parents like the physical body that we get, height of the body, skin color, and so on. These are all determined by the genetics that are contributed by the genes, that we get from our parents. Similarly, a lot of our psychological constructs like the mood that we experience, our emotional experiences, and the personality traits that we all have, are largely determined or influenced by genetic set point. Obviously, in the psychological realm, things are more fluctuating and more flexible but still genetics can contribute to that in terms of setting certain boundaries of experiences that we have in our lives. These genetics determine a lot of things and they create a set point, like certain boundaries or limitations around which things can happen, beyond that. That is. they are determined by genetics. not

These are generally fixed, stable over time, and immune to the influence of control. Generally, these are fixed because these are given and influenced very deeply from within us, they are very stable factors. If something is determined by genes it is not easy to change because these are influenced by very deep biological factors, in that sense these are kind of set points. Now, how do we know that there are genetic set points for things like emotions and happiness and so on?

A lot of this evidence comes from twin studies. There are two types of twin studies. I think twins could be identical or non-identical. Identical twins are the same in terms of genetic composition. Identical twins are 100 percent the same in genetic composition. These are those twins who look the same. Outsider people cannot distinguish who is who, or differentiate between who is who, because they look the same. Biologically they are very similar in terms of genetic composition, 100 percent the same gene composition. Non-identical twins look different but they are still identical, around 50 percent of genes are shared by them. A lot of these studies studied identical twins, and if they show certain traits, it is very similar. One of the conclusions that we can make is that it is contributed by the

However, the problem is if both the twins remain in the same environment then it could be contributed by the environment also. A lot of these studies found out twins who are separated after birth and were reared in different circumstances or different environments in different families, either one was adopted by another family or separated for some reasons. A lot of these studies show identical twins who are reared in different environments or different families even they showed dramatically very similar traits, and personality characteristics in terms of their emotional experiences. A lot of these studies indicated that genes could contribute very strongly to our emotional experiences or personality traits. In that sense, these are some of the evidence that we got from the twin studies.

Genes can contribute a lot to our emotional experiences including positive emotions and happiness. But, to what extent do gene contributes? Different studies show different percentages. Most of the studies generally show the coefficient could be approximately 50 percent variance. It's still not 100 percent determined, but it is around 50 percent. Some study shows it is more than that, and some studies show, it is a little less than that. It could be somewhere approximate 50 percent contribution, but for some traits, it could be much more, some traits it could be less.

The genetic contribution is not the same for every aspect. it could be for happiness and other things, generally, it could be around 50 percent contribution from genetics or it

comes from genetics. The next factor is called life circumstances. Now life circumstances are some things that are generally stable elements of our life which are incidental but relatively stable facts of our life. Circumstances mean a lot of things we are given after birth.

These are incidental, we don't choose them, they come with our birth. A lot of circumstances and a lot of other circumstances happen as we progress in our lives. Most of the circumstances are like stable incidental factors in our lives. Generally, they are stable, life circumstances don't change very often, some of this can change obviously, but they don't change every day like your circumstances will change. A lot of life circumstances could contribute to your happiness, like happiness relevant life circumstances may include national geographic cultural region of residence where you reside, what kind of geographic location, national location, and cultural region.

It also includes demographic factors such as age, gender, and ethnicity. These things you get from birth, like gender or ethnicity, we get from our birth and these are stable things, you cannot change them generally. Individual personal history can come under life circumstances such as your experience of past trauma or accidents. Whatever events have happened, they have a lot of traumatic impact on you like accidents and traumatic experiences. These are all kinds of facts about your life. Life status variables such as your marital status income, health, religious affiliation, etc. also come under life circumstances.

A lot of these factors are very incidental and they are very stable also, you cannot keep changing them overnight or every day. These are like stable facts of our life but incidental. These are all life circumstances. A lot of these life circumstances contribute to your happiness, some circumstances can decrease happiness, and some circumstances can increase happiness, some of these things are here. Some of the research shows the circumstances that are most consistently associated with subjective well-being or happiness, which predicts higher subjective well-being or happiness like being married.

Some of the research on Western culture in the cultural context showed being married generally increases happiness, but there can be exceptions. The only thing is that these are population-level studies that show that people who are married generally express or report higher happiness or subjective well-being. Being religious, especially people who do certain practices that contribute to their peace and happiness, that also increases. Being employed is a very important factor as compared to people who are unemployed, employment gives a lot of happiness. Being healthy is also very common-sensical. Health is the most important factors that contribute to your happiness.

Also sufficiently wealthy to meet basic needs, wealth especially at least this amount of

wealth should be this much that it meets the basic needs of your life. Beyond that other things may not be directly linked, like the relationship may not be very direct or linear. As your money increases your happiness may not increase proportionately like a linear relationship, it is not like that. But at least wealth is important for happiness to the extent that it helps you to meet the basic needs of your life. These are some of the circumstances where research shows that these are related to higher subjective well-being.

One of the interesting things is that a lot of these studies show that, all these circumstances combined do not contribute very high percentages of one's happiness in life. The percentages could vary from 8 to 15 percent. If you see genetics somewhere around 50 percent, here most of the studies show that the percentages and the population level vary from 8 to 15 percent. Life circumstances do not contribute much. It is counterintuitive because we believe that changing our life circumstances will enhance our happiness level but the research does not show that they contribute much to our happiness.

What could be the reason? this is a paradoxical finding and generally, we assume happiness depends on our life circumstances. What could be the reason? One of the reasons is that people get adopted or hedonic adaptation is a term that is given when some things are very constant in our life we generally adapt to them. When something loses its novelty we get influenced for some time, then we get adapted to it. A lot of these life circumstances are very stable facts of our lives. You cannot change a lot of these life circumstances.

We adapt to them. They no longer disturb you all the time because it is already there and you learn to deal with them. That is what is called hedonically adapted. It no longer gives you emotional changes because we keep adapting them and if something is very constant they don't have much emotional value in terms of affecting us. People seem to very rapidly adapt to life circumstances. For example, let's say your income increases.

People will be very happy. They will experience a lot of positive emotions, but for how long you will be happy with that rise in income? For a few days, then you get adapted to this rise in income. Now it becomes a normal aspect of your life about the increase in income. After a few days, it will not give you the kind of kick or happiness that used to give when initially you experienced that. You get adapted to this rise in income or higher income

It will not give happiness for a long time. For sometimes it will give, then you will get adapted to them because this rise in high level of income will become normal for you. That is called an adaptation. People generally adapt to most of these life circumstances because these are constant facts. That is why they may not contribute much because even if they change again, we get adapted to them.

An adaptation is one of the problems or one of the hindrances for happiness or sustainable happiness. Both genetic setpoint and life circumstances are largely not in our control. Genetics obviously, is not in our control. It comes from generation to generation and is passed on to us and how it is influencing us. A lot of these things we don't have much control over. Life circumstances, also most of them we don't have much control over because these are incidental facts of life and they are very stable facts of life.

But the third factor as they said, is connected to happiness and is called intentional activities. These are the active parts only where we have control over it. This is the last component, intentional activities which according to them contribute around 40 percent and have a lot of avenues for pursuit of happiness. What are these intentional activities? These intentional activities are effortful actions. Whatever actions that we do in our lives or practices that we do, include all the varieties of things that we do intentionally or with effort.

Intentional means effortful or people choose to engage. These are not automatically given to you. In life, we have to do and choose many things that we do. These are all called intentional activities. All these activities that we do intentionally also influence our happiness. Now some intentional activities may make you sad. Some intentional activities may enhance your happiness. This can contribute a lot. intentional activities do not happen by

You have to put in effort. Whatever effortful action that we do is called an intentional activity. Life circumstances generally happen to you. You find yourself in certain circumstances and intentional activities are ways, you act on those circumstances. Life circumstances happen to people and intentional activities are ways that people act on their circumstances. How do you deal with them or how do you put effort into making them better and so on?

Those will be counted under intentional activities. These intentional activities are more controllable because we do them with our effort intentionally. We choose to do them, therefore we can control them, whether to continue the activity or not to do it or whether

to change an activity, all these things are in our conscious control.

If these activities influence our happiness, the one good news is that this is the part where we can have a lot of interventions, where we can consciously change them to influence our happiness. This also gives the greatest potential for a sustainable increase in happiness. The other two factors are not much in our control. They can influence no doubt but, we cannot do much about them. But here we can do everything about these factors because it is in our control, total control.

Intentional activities could be a variety of types of activities, whatever different activities that we do that require choice, effort, and so on. Lyubomirsky proposed three categories of intentional activities. One is called behavioral activities which reflect a person's actions such as physical activities. It could include something like meditation, mindfulness, and social activities such as doing acts of kindness or gratitude. A lot of this can have a mental component as well as a physical component or physical exercise and

All these activities have been found to increase happiness or subjective well-being. These are the certain actions that we do, where certain movements and actions are required. These are called behavioral activities like, we do physical activity, exercise, and so on. You need effort to do it. You need to choose okay, I will do exercise today. This is an intentional activity or if you sit in your room automatically exercise will not happen.

You have to put effort and do it. That is why it is an intentional activity but it is a more action-oriented activity, so it will come under behavioral activity. Some meditational activities also require some physical actions. It includes mental aspects where you can do a lot of social activities like doing acts of kindness where helping people can enhance happiness and so on. Cognitive activity means, these activities are purely mental activities, you need not necessarily have to go outside and do some actions but these are mostly related to your thought processes, attitudes, and on. Cognitive activity includes a person's attitude such as cultivating gratitude, forgiveness, and cognitive approaches to coping with adversity. All of this can increase happiness or subjective well-being.

At the mental level, for example, you change your thought process from negative to positive or you forgive somebody intentionally. Consciously you say you forgive somebody it needs some effort but it is totally a mental effort or you change your thoughts. Now you are thinking very pessimistically about your future, now you suddenly think optimistically, you think that some positive thing can also happen, and you shift your perspective. It needs some effort in terms of looking at things and

changing them. These are all cognitive activities, many of these cognitive activities are associated with higher subjective well-being. That category is called volitional activities, this includes motivational and goal-oriented activities that we do, and the kind of goal that we set for ourselves can also enhance our happiness.

We have many goals in our life and we try to achieve those goals and we need motivation to fulfill them. These are all called volitional activities and research shows that these are goals that are concordant with one's values and interests. If you set goals that are in sync with your values and interests, if you have set some goals which you like to achieve, you are interested in doing those kinds of activities and to achieve certain goals, and these are in concordance with our value system, then the achievement of those goals can enhance a lot of happiness.

All this needs intentional activities. Intentional activities could be pure mental activities, physical activities, or goal-oriented activities. Most of these activities whatever we do will come under one of these categories. This model had some criticism also, especially the percentages they talked about, some researchers criticized this model in terms of not the determinant aspect but most of the percentage aspect. For example, Brown and Rohrer wrote an article where they criticized some aspects of this model. They say that this model confuses the mix between-subject variance with within-subject variance. This means that a lot of these percentages that are found were taken across the population. These are between subjects and not within one subject. Many people in the population have been studied and these percentages were found, and the variance like 10 percent for circumstances.

It is not for one individual if you look at all the life circumstances at 10 percent but studying different people in the population like 10 percent and those 50 percent, these percentages came up and they took that between-subject and calculated as a withinsubject or within-person percentage, which may be or may not be correct in many context. 10 percent of a person's variance in happiness can be explained by that person's life circumstances unless established within-subject level of analysis. A lot of these cross-sectional studies they did between subject variances in the population studies, and they analyzed it in the within-subject category which may or may not be correct in some circumstances. This is one criticism, another is that all these factors are considered as independent factors like genetics is a different factor, life circumstances are a different factor and intentional activity is a different factor but in real life, a lot of these factors could be interconnected. For example, genetic factors may interact with circumstances intentional activities influence and to our happiness.

They may share each other's and contribute to each other. Again, a lot of the sources of

percentages were taken from different sources and not from one study, which may not be correct in showing. Having said that the proposer of this model Lyubomirsky and Sheldon and others already indicated this aspect in their model where they said these are indicative and approximate percentages which were indicated by different studies. They are showing that these percentages may fluctuate but these are indications that they got from different studies and a lot of research shows these factors contribute to our happiness.

There is no doubt in that aspect that these are important factors that contribute to our happiness. The basic idea of this model is correct and is supported by a lot of evidence. The basic idea is that people can influence their happiness by intentional activity. This is something evidence-based and a lot of evidence is there. That is the take-home message that it is possible to change our happiness, particularly using intentional activities.

That is the important message that is correct. There is no controversy around it. Our happiness is not completely determined by genetics or life circumstances. There is a lot of scope beyond them to even influence it and it fluctuates from time to time and we all know our happiness fluctuates from time to time.

It is not a fixed thing. It is a very dynamic thing. Our volitional or intentional activities are the logical source of influence of this fluctuation in happiness level. This fluctuation could be explained by using our intentional activities, which is the most important thing or takeaway message from this model. The most important question that naturally comes up is, how can you use this intentional activity to increase happiness? How can we use that? That is the message we got, but how to use them? If happiness is rooted in our intentional activities, what activities should we do? Should everybody do the same thing or a lot of other activities should be done? According to Lyubomirsky, for the best result, one needs to do this person-activity fitness.

This is very important. The match between the person and the activity. Everybody may not be benefited from the same kind of activity. People prefer to do different kinds of activities. There has to be a match between the person and the activity. That is something very important in terms of understanding intentional activities.

Person activity fitness means any one particular activity may not be suitable for all persons. People have different strengths, values, and interests. According to those strengths, values, and interests, one will be predisposed to benefit from some activities. According to their values and interests people may like to do some activity, and some other people will like to do some other activities and accordingly it will influence their

happiness. For example, people who are very extroverts, very outgoing, and social people will benefit from activities that are related to other people or some kind of social activity or activity that requires interaction with other people.

They will benefit more because of their tendency to connect with people. For example, other people who are very introverted, prefer to live in their world. They may benefit from other kinds of activities that do not require interaction with other people. It could be something like doing meditation or something where there is no need to connect with other people. Depending on the nature of the individual one can choose based on their interests, based on their values, based on their strengths, people can find out what activities they prefer, and gives them more happiness. How to do this person-activity? Some indications are there which can be used by everybody to do this person-activity fit.

One is that, one needs to understand fit activities with the source of one's happiness. If somebody is unhappy for some reason, that something is creating a lot of unhappiness in one's life, find out the source of unhappiness and do actions accordingly. That will reduce, and remove the source of unhappiness. One needs to identify the source of unhappiness and by removing that source will increase happiness. To do this fitness, one needs to find out the source of unhappiness and then accordingly activities can follow.

People may be unhappy for a variety of reasons, everybody has their own reasons, they find out the source of unhappiness and match it with the right activity which can remove that source. For example, a pessimist may benefit from cultivating optimism or optimistic thoughts. Sometimes people are unhappy because think too much of pessimistic thoughts and too much of negative thoughts. The source is pessimism, one needs to address that. How to address that? They do cognitive activity or at least change or shift their thought process towards more optimism.

That will remove the source and it will enhance your happiness level. Fit with your strength is another important criterion to fit with it. Person-activity fitness also can be done by identifying strengths and talents. For example, a creative person may express love and gratitude through painting or writing. Activities that are in sync with our strengths, we always prefer to do things which we are best at doing.

If we have some strength, generally we love to do those kinds of things because we know how to do them. If we don't know how to do some actions or we don't have much understanding, then we prefer to avoid them because we are not good at it. If we have some strength and we are good at something, it is better to use activities in sync with that strength because we will feel happy in expressing that. If somebody has creativity in

terms of painting, let's say, if they express their life through those paintings, they will feel much happier because painting is their strength as compared to someone who doesn't know how to paint.

For other people, other strengths should be there, like fitting with your strengths is one of the ways one can find out what activities should be done. The third important thing is fitting with your lifestyle. Sometimes one can fit certain or find activities, but it may not be suitable for one's lifestyle because everybody has different lifestyles at different times for doing activities. Choosing activities that can be adapted to fit with one's lifestyle, for example, if you have a hectic lifestyle, you can choose activities that can be done in a very

Short

duration.

If someone has a lifestyle that is very different and somebody is a spiritual person, one can choose activities that are in sync with spirituality like meditation and so on. One can do this kind of action to fit with their lifestyle strengths and sources of unhappiness to do person-activity fitness. Overall in positive psychology, we call something a positive activity intervention, which means these intentional activities that enhance happiness are called positive activities. Not all activities will enhance your happiness. Those activities which enhance your happiness or subjective well-being are called positive intentional activities.

These are activities that are simple intentional regular practices. It mimics; a lot of these activities mimic healthy thoughts and behavior associated with naturally happy people. People who are naturally very happy, most of the time some people are very happy, they express more happiness. Some of these activities mimic the mindset of those people. Why are some people naturally happy because they have certain mindsets, one can mimic those mindsets using positive activities like expressing gratitude, optimistic thinking, pro-social behavior, and so on.

All that enhance happiness are called positive activities. Research shows varieties of positive intentional activities that have at least found evidence in terms of their effectiveness in increasing well-being and reducing negative symptoms in various randomized control studies like writing letters of gratitude or expressing gratitude is one of the significant exercises or intentional activities. I think we have already mentioned that expressing gratitude means expressing thankfulness towards other individuals who contribute to your life or whatever things that you get in life or in general you are thankful for what life has given to you. It is about shifting your thoughts from complaining aspects to aspects where you can be grateful. Complaining and gratitude cannot exist together because these are opposite things. When you are complaining in

life you are seeing the problems of life or the defects of life or issues that you face in your

When you show gratitude you are looking at things that are good in your life. Everybody has many positive things in their life, but generally, we do not look at them. The natural tendency of the mind is to find out things that are not good something to complain about. This is a natural tendency of the human mind. Shifting this tendency requires intention, so people can do a lot of exercises like, if somebody has done something good in your life you can write letters of gratitude. There are many experiments, that show they can immediately enhance your happiness or you can do this exercise, just remembering things or speculating or reflecting on things that are good in one's life in terms of skills that you have, in terms of material things that you got in life, or relationships that you got, there many ways of doing are are there.

All these exercises research has been found to increase happiness and on. Counting one blessing is again connected to gratitude only. You simply find out the things for which you are blessed in your life. If you try to find out; everybody will find out something, even if you think your life is highly miserable. No one's life is 100 percent miserable, there will be something where one can feel blessed about some aspect of their life. Again, practicing optimism is more about shifting things, more specifically for the future aspect of your life. One can be optimistic because it changes your emotions from negative to positive and it helps you to function better to bring about positive changes in your

Another very important thing is called acts of kindness. Research has very clearly shown when people help other people or at least show some kindness by doing small activities also, immediately it makes them a lot very happy. It need not be doing some great charity work or something, even if you smile at somebody, especially if somebody is dejected or sad or just to enhance their motivation you smile at them it can be counted under acts of kindness because your intention is to help someone. Let's say in public transport, you give your seat to someone who is more like an older person which can be accounted as an act of kindness. Your intention is to help someone, immediately it gives you happiness because what you give, comes back to you. You give happiness to someone, automatically it comes back to you and we all experience this act of kindness that makes people immediately happy. Probably, that is why a lot of people still do a lot of acts of kindness, one primary reason is that it makes them happy.

Using one's strength in new ways, we all have different strengths and it need not be strengths only in terms of mental capability, one may have the strength of creativity, one

may have the strength of empathy or understanding, or one may have the strength of courage. There can be different kinds of strength that we all have not necessarily only ability of mental ability or something like that. The more we use that strength that we all have, the happier we become because if something is strength means you are good at it and once it is expressed or expression of that strength enhances happiness because we feel good when we express something that we like or which we are good at it. Our interest is much more on things where our strength is there, we don't like to do anything where there is a weakness, we don't know how to do something then obviously we will try to avoid them. We like to do things when we are more interested in doing things or where strengths are there. Using one's strengths more and more and in newer ways always enhances happiness. This is a research finding that affirming one's importance or values, like if you have certain important values, so affirming them and working towards them

Different kinds of meditation and mindfulness activities are also found to be very important in enhancing one's happiness. These are some of the activities, and we cannot go into very detail about each of them because each of them will require one lecture but the focus is more on understanding happiness and subjective well-being in a broader aspect. That is why we have just discussed some of the activities in a very brief way so we understand that a lot of activities can be done which enhances happiness level. All these positive activities or exercises work in how they impact us positively or enhance happiness. The mechanism is that if they promote positive feelings whatever you do, let's say you exercise gratitude, the moment you become grateful for something you feel happy because you are looking at the positive side of it. The moment you complain about something you feel sad automatically, immediately it shifts your experiences. It enhances or promotes positive feelings. All these activities have positive thoughts like gratitude I said, it enhances vour positive thoughts and positive behaviors.

If your thoughts are positive automatically behavior will be positive. These activities don't focus on fixing negative things or pathological feelings, not at all focusing on anything negative. We have already discussed in the positive emotion lecture that positive emotions automatically undo the impact of negative. If you have a lot of negative emotions in you, these activities are not directly addressing any of these things, they may be there, you just stimulate positive emotions, and automatically the negative emotions aspects will diminish and there is no need to fix them separately and automatically it will be fixed. A meta-analysis of about 51 randomized controlled intervention studies; all these studies that focused on interventions or how these activities enhance happiness that is the meaning of interventions found that, people who engage in all these positive activities such as thinking gratefully, optimistically, or mindfully

These 51 studies show similar directions of findings. It is not just one study or two studies, it is a meta-analysis of many studies which did similar studies and their findings are in the same direction. With this, I will stop here, and with this module also ends. In the next module, we will be talking about some other aspects of emotions. Thank you.