

Psychology of Emotion: Theory and Applications
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Module 12, Lecture 31: Development of emotional intelligence

Welcome to Module 12 of this course, where we explore the applied aspects of emotions and emotional intelligence. This marks the final lecture of both this module and the entire course, Lecture 31. Today, we'll delve into the development of emotional intelligence, examining the factors influencing its progression from childhood to adulthood and discussing interventions to enhance it. But before we dive into today's topic, let's briefly recap the previous lecture. In our last session, we specifically explored the role of emotional intelligence in the context of health and well-being. We examined how emotional intelligence relates to both physical and mental health, distinguishing between mental disorders and various indicators of well-being. Overall, extensive research indicates that emotional intelligence is a core aspect of mental health and well-being. Many psychological disorders are closely tied to emotions and their regulation, suggesting that deficiencies in emotional intelligence may underlie these disorders. We reviewed research findings concerning physical health, mental health, and indicators of well-being, such as life satisfaction and positive emotions.

Today, our focus shifts to the concept of emotional intelligence development, tracing its trajectory from childhood to adulthood. We'll discuss a particular model known as the investment model of emotional intelligence proposed by Zeidner et al. in 2003. This model posits that emotional development relies on three distinct processes, which we'll explore in detail. As children grow, their emotional processing becomes more sophisticated, transitioning from biologically-based temperament to rule-based learning, and finally to self-directed emotion regulation. Initially, a child's emotions are primarily influenced by biology, but as they mature, they begin to learn societal rules and norms governing emotional expression and management. Eventually, with increased self-awareness and understanding of their social environment, they develop more sophisticated forms of emotion regulation, directed by internal processes. In essence, emotional intelligence evolves from innate biological tendencies to learned rules and finally to self-directed regulation, mirroring the child's journey toward greater self-awareness and social understanding.

Now, let's delve into the specifics of emotional intelligence development and the factors that shape it at each stage of life. So this model essentially discusses three levels of functioning. According to this model, there are three levels of emotional function that may account for individual differences in emotional intelligence, explaining why some people have higher levels of it while others have lower levels. These are: the biological basis of emotionality, rule-based learning of emotional competence, and self-aware emotion regulation. Now, let's discuss each of these factors one by one and examine their relevance in the context of emotional intelligence and how we can utilize this understanding to facilitate emotional intelligence.

The first factor is the biological basis of emotionality. When discussing emotional intelligence or emotions, we cannot separate biology from emotions. Every emotion has a strong biological component that influences our body, and we have already delved into detailed biological mechanisms in some of the earlier modules. The idea behind the first layer of this model is to emphasize the role of biology in emotional expression. Some emotions are essentially biology-based, meaning that biology influences emotional expression. This level highlights the role of biology and genetics in shaping emotional intelligence. The genetic component and underlying biological factors can influence an individual's emotional experiences and their ability to regulate emotions.

This suggests that individuals may inherently differ in their emotional responses and abilities due to genetic factors and brain functioning. Genetic predisposition can affect an individual's baseline emotional state, temperament, and their innate capacity to perceive and regulate emotions. This genetic predisposition can also influence specific emotional processes, leading to variations in how individuals perceive, express, and regulate emotions in social contexts. Ultimately, the complex expression of emotions in the social world can be attributed to these biological differences among individuals in terms of their inherent tendencies.

So, this level is more evident in early childhood emotional functions. When a child is initially born, its function largely depends on biological predisposition. Whatever tendencies are present, the child will behave accordingly because it hasn't learned much from the outside world yet. This learning process continues as the child grows, but initially, it is heavily influenced by genetic and biological tendencies, particularly in terms of emotions. Babies, even very young ones, can surprisingly understand and respond to emotions. We all know that even new-borns respond to emotions and have their own emotional reaction patterns. Some children could be very emotionally reactive, while others may be calmer. These individual differences are observable even in new-borns, where there is minimal influence from the environment, indicating biological tendencies that differentiate them.

This suggests that they might have some inborn abilities related to emotions, not just things they learn as they grow. Some new-borns might have a biological predisposition to be highly reactive when exposed to stimuli and novelty. For instance, some children cry a lot, while others remain peaceful and calm. This reactivity differs among children and may be purely due to biological predisposition since the child hasn't learned anything from the outside world yet. During the first year of life, when confronted with uncertainties, such as infants may display specific physiological responses, such as elevated heart rate and changes in hormone levels, which can make soothing them particularly challenging. Some children, when faced with uncertain or fearful stimuli, may react strongly with high heart rates and physiological changes, making it difficult to soothe them. This biological predisposition for high emotional reactivity could explain such responses.

Recent research also suggests that specific traits related to emotion, temperamental traits, might affect how emotional intelligence develops. Emotional intelligence, which develops depending on some of these emotional traits, may be linked to biology. Specifically, two particular temperamental traits are important because they are influenced by biology and can also

influence emotional intelligence. Firstly, emotional intensity refers to how quickly and strongly emotions are shown or how easily they get triggered. Individuals differ in the intensity of their emotions; some people are easily triggered and react strongly, while others may take more time to react. These individual differences can make a child very sensitive to stress and help them handle it better. This sensitivity can vary from person to person. Secondly, attentional processes refer to the ability to decide when to do something and when to stop. It involves quickly manipulating attention as needed, knowing when to start or stop something. These attentional processes can help a child deal with stress by allowing them to control their actions more effectively. Regulation of emotions and controlling actions largely depend on these attentional processes.

These two specific temperamental traits can affect emotional intelligence, and they are biologically influenced. This temperament, in conjunction with the family environment, can hinder or support the development of emotional intelligence. For example, high emotional intensity, as a biological predisposition. The predisposition can interact with the family environment and determine whether somebody will become emotionally intelligent or not. The same emotional intensity could become problematic if the person finds it difficult to manage their emotions due to highly intense experiences. However, if it is regulated and learned, or if proper direction and understanding are provided, it can become a healthy expression of emotions. It all depends on how it interacts with the environment, which can either hinder or support the development of emotional intelligence through various mechanisms. For instance, studies indicate that a child with a natural inclination to experience negative emotions may face a higher likelihood of emotional dysfunctions. For example, a child who experiences intense negative emotions more frequently may be more vulnerable to stress and anxiety, making them somewhat unstable emotionally. These tendencies, if biologically determined, could lead to a higher likelihood of emotional dysfunction later in life. Similarly, individuals residing in harsh environments that regularly trigger intense negative emotions may encounter similar risks. Certain environmental factors, such as chronic exposure to abuse or negativity, can condition the mind and emotional experiences in a negative direction, leading to emotional dysfunctions.

The environment can also influence these biological tendencies, determining whether a person will have high or low emotional intelligence later in life. Since emotional intelligence or emotional expression can be partly biologically determined, individuals with low emotional intelligence may encounter challenges in acquiring emotional skills later in life. Therefore, most experts consider childhood a critical phase for modelling lifelong emotional competencies. It is easier to intervene during childhood, as the child's experiences and understanding are more fluid during this period. In conclusion, childhood plays a significant role in shaping a child's emotional capabilities and intelligence for later life.

So each major skill of EI may have crucial periods of their development, which span several years during childhood. During childhood, as the child grows, they can learn all these emotional aspects at certain developmental stages, which may differ from one child to another. However, mostly, they learn different skills of emotions as they grow, and intervention during those critical periods is very important. If the child is taught appropriate emotional expression, understanding of emotions, and how to regulate them during these phases, it will have a very

strong impact on their emotional skills and abilities. So each of these phases represents an opportunity to assist a child in acquiring appropriate emotional skills and align with the tasks and challenges of that particular life stage. So those different stages of childhood give a very strong, significant opportunity to shape the child's emotional abilities. If this opportunity to acquire these skills is missed during a specific phase, it can become increasingly challenging. So later on, it can also still be done, obviously. One can learn whatever in the different later stages also, but it becomes difficult during adulthood and old age to mold your brain and understanding. Because things become much more rigid in adulthood, childhood you can shape the mind of a child much more easily. So this becomes much more challenging later, but it is not impossible; things can be done.

So another important aspect is that biology and emotion-related behaviors could affect each other. Not just biology affects emotional behavior, emotions related behavior can influence biology also. So they are kind of mutually influencing each other; each can influence the other. So biology can influence emotion-related behavior; on the other hand, emotion-related behavior can influence biology also. For example, there is growing evidence that the way in fact interacts emotionally with the caregiver can affect the development of brain areas responsible for emotional awareness and control. So what a lot of research actually shows that, you know, how the child interacts with their caregivers that will affect the development of their brain also. So here the emotional behavior is influencing the biology that is the brain especially the brain areas that are responsible for emotional awareness and control.

So it depends on what is the relationship with the caregiver and how that relationship is shaping up. Specifically, this interaction can bring out lasting changes in the structure of the particular area of the brain, which is the orbit of the frontal cortex. So the frontal cortex, a particular area could be influenced by this interaction between the child and the caregiver, which in turn can impact the neocortex's ability to regulate the activity of the amygdala and other brain regions which are responsible for emotions. So that interaction, emotion-related behaviors between the child and the caregiver can influence a certain brain region, particularly this frontal cortex, which can also lead to further influence of the emotional areas of the brain. Insufficient or lacking warmth in a child's interaction with caregivers, along with absence of proper caregiving or abnormal circumstances, can lead to neglect and abuse. Such situations, occurring within an inadequate or unloving relationship with caregivers during childhood, have the potential to impair the neural foundation of emotion regulation and affect brain regions responsible for emotional awareness and regulation.

So emotional behavior can influence your biology also, and that can later create a problem also in terms of behavior. Additionally, delays in language development and other things also can hamper the acquisition of skills related to recognizing, comprehending, and expressing emotion. So how a child's development of language and other thing that also depends on the caregivers, that can also influence a lot of emotional abilities like the acquisition of skills related to recognizing, understanding, expressing emotions was the child kind of interacts through language. So for caregivers, educators, and policymakers, the practical implications are very clear from this biological understanding of emotion is that creating an enriching environment can be highly beneficial in nurturing a biological inclination towards high

emotional intelligence. So this biological predisposition for high emotional intelligence can be facilitated by giving an enriching environment or giving proper nurturing during childhood. So that can also shape this biological tendency for high emotional intelligence; it can facilitate that tendency which is given by the biological predisposition. So that interaction of the environment can kind of express its full potential. Furthermore, even if the child's emotional competence seems limited in the early years, there is still an opportunity to influence biological factors that become more prominent as the child grows and develops. So this is a kind of developmental model. Even if there are limited abilities of a child during childhood, we can still do a lot of intervention later on in terms of as the child grows for which can be done later development stages also. So it's not that if a child has not learned much during the specific period of childhood, it cannot be done later. So there are other opportunities as the child grows where interventions can be done. So this was the first layer of this model, the biological basis of emotionality, where biology can influence the predisposition to experience emotions, regulate emotions, understand emotion in a certain way, and that can influence your emotional intelligence. And obviously, the kind of environment one is put during childhood can interact with those biological tendencies to give a shape to those emotional expressions and understanding and capabilities.

Now the second layer of this model, where how a child learns emotions and expression of emotions and emotional intelligence related capabilities. So they see other people expressing all the emotions, and this is how they learn all these things. So this whole environment will determine their competencies, their learning process, and so on. The quality of the emotional atmosphere within the family is significantly influenced by two major things: how caregivers and whoever is attached to the child express positive and negative emotions, and how they respond to the child's emotional expression. These two factors are crucial in shaping the child's emotional competence.

As a result, the emotional climate at home impacts the child's emotional responsiveness and the quality and stability of their relationships with family members. Studies have indicated that parents and caregivers who exhibit a high degree of warmth and positive emotions while minimizing the expression of disapproval, hostility, and other negative emotions directed at the child typically raise socially competent, well-adjusted children. Furthermore, caregivers who foster appropriate expression of emotion in their children tend to have children who excel in emotions. Some child-rearing practices also influence children's emotional abilities. Data shows that parental control has a non-linear relationship with emotional competence. In the context of pre-schoolers, a moderate level of control is related to optimal emotional competence. Extreme levels of control, either too much or too little, may lead to poor emotional competence, according to some research. Parental warmth has also been linked to increased emotional competence, likely because secure attachment in children is a precursor for later competence in social settings. Parents who are more responsive and warm tend to have more socially adjusted children who are accepted by their classmates. All this has a positive impact on the emotional competence of children.

Children learn emotional abilities to protect them from the detrimental impact of stressful experiences when their parents are adapting, expressing, and coping with emergency feelings.

Proponents of emotional intelligence claim that children learn from role models how to process and regulate emotional information and experiences. Parents, particularly in the initial phase, are the first and significant role models for the child, and they learn their emotional competencies from them. If parents are not competent in emotional abilities and regulating emotions, you cannot expect a child to be competent. This is the second level where a child learns a lot of emotional understanding and capabilities and regulation of emotions from the people around them, from the family, from society, from schools, and so on. This is the second level of understanding where children develop their emotional competencies and intelligence from rule-based learning from society.

The third level is called self-aware emotion regulation. Here, the focus is on the formulation of self-aware, strategic regulation of emotional behavior. It suggests that individuals vary in their ability to be aware of their emotional state and effectively manage them. It is about an individual's own ability, how aware they are of themselves, their weaknesses and strengths, and their emotional abilities. This level emphasizes the child's own understanding and consciousness in regulating emotions. Here, children develop a sophisticated understanding of themselves as social beings and use this knowledge for emotion regulation. Emotion regulation comes from self-reflective thoughts. The role of self-aware emotion regulation becomes significantly more important with increasing age, as children learn more and more about themselves and their emotions. They should learn, and it becomes more important with increasing age. So this level comes into play when kids become aware of how to manage their emotions consciously, not just based on automatic learning. Consciously, they can decide what they should do. When they start school, they begin to evaluate themselves and understand how to act appropriately based on what others expect. So the child will learn expectations of others, what they should do, and their own abilities, and so on. This goes beyond simply following rules without really understanding why. Rules are more like automatically following them because others are following them, so there are norms in society. You may not even understand why they are there. The rules could be very automatic and unconscious, but self-awareness comes from your own understanding. Some people may not follow the social customs and so on; they may follow their own understanding. So this becomes more important as the child grows older. So they learn more of their self-aware regulation of emotion.

Learning to be self-aware like this is acquired through social experience. It is also important for kids to develop the ability to think about their own thoughts and feelings, which is also called meta-cognition. Meta-cognition basically means thinking about thinking: how am I thinking, how am I feeling? So the child can look into their own thoughts and emotions and interpret. Thinking about thinking is called meta-cognition. This develops as the child becomes cognitively more complex. They not only look at other people and judge what they are doing, but they can also judge themselves. With the progress of age, that's called meta-cognition. This meta-cognition actually leads to more of this self-awareness and ability for self-regulation. It's only as kids get older, around school age, that they start to understand how emotions can influence their thoughts and what they should do. In a study, it was found that five-year-olds didn't do well on tasks related to these meta-cognitive skills; eight-year-olds did a little better, and adults could do a lot of these tasks very easily. This meta-cognitive task and self-awareness

task start to develop from the age of eight years. After the age of five years, slowly, slowly, it starts to develop. As children grow older, they become more aware of themselves as social beings and use this awareness of their own position to regulate their behavior, kind of like how someone uses knowledge-based skills. This development includes becoming mindful and having meta-cognitive self-regulation skills.

At the age of six to eight, they start understanding and controlling these thoughts. Slowly, slowly, it develops, while at the age of 14 to 16, they become aware of specific cognitive processes that help with planning for the future. Slowly, slowly, it becomes more consolidated at the age of 14 and 16. Understanding emotions explicitly helps them develop conscious skills of managing their emotions. Conscious skills develop; they can control and consciously decide not to express something or to express something, not just based on rule-based learning, but based on their own conscious understanding. This self-awareness is seen when they understand complex emotions, use reflective problem-solving, and build mental models of how others think about emotions. It comes from these complex cognitive processes, which develop as self-awareness grows in a child. This is about this model, which talks about emotional capabilities and emotional intelligence, having three layers. One is biologically based; biological components can influence emotional capabilities and emotional intelligence. The second one is rule-based understanding, where a child learns from society and cultural aspects where to show what kind of expression of emotions and so on. That also adds a layer to emotional capabilities. The third one is self-awareness. As the child grows, they become self-aware; they can even analyse themselves, what they are doing in terms of all these cognitive abilities. Out of this self-understanding and consciousness, they can also regulate their emotions. All these layers of factors could ultimately lead to emotional intelligence abilities and can explain why some individuals are more emotionally competent compared to others. So, these three factors can combined explain all these differences, and this also gives an opportunity to have some interventions.

Now, what are the implications of this model? What we have understood from this model, what are the practical or applied implications of this? This model gives us very important implications. One is that creating an enriching environment, as we also discussed earlier in the biological factors, can be highly beneficial in nurturing a biological inclination towards emotional intelligence, especially during childhood when the child is learning a lot of emotional competencies. Giving the proper, right kind of social environment, family environment can facilitate emotional intelligence. It is much easier to shape a child's mind during childhood, and those biological tendencies can be facilitated. Even if a child's emotional competence seems limited in the earlier years, still, there is an opportunity. This model at least says we can have an intervention later on also, develop EI through proper socialization, parenting, modelling, and teaching those understanding skills for enhancing self-awareness.

These interventions can shape emotional intelligence not only in childhood but also throughout different stages of life. Factors such as socialization processes, parenting styles, role modelling from parents and teachers, and teaching self-awareness skills at appropriate developmental stages play crucial roles. Enhancing self-awareness, understanding one's strengths and weaknesses, and grasping the dynamics of the social world contribute to better emotional

intelligence. Implementing these strategies across various developmental stages can facilitate emotional intelligence development.

So, this is about this course. This was a course where it was a kind of a long journey of understanding emotions and applications of emotions, particularly through the concept of emotional intelligence. I hope that this journey of emotion will be a very meaningful, enriching, and insightful journey for whoever takes this course. From my side, I tried to give the best of the knowledge possible, both theoretical and applied, and kind of the crux of the information I took it from different sources and tried to give understanding on different aspects of emotions, which are relevant in our day-to-day life. So, if you look at this course, I tried to touch upon all the significant aspects of particularly the psychological understanding of emotions, where we started talking about the nature background and history of emotions that is where we started in the first module. We discussed various background stories, different theories, the various historical figures who are important in the research of emotions and they gave contributed to the understanding of the psychology of emotions. We also discussed the universal and cultural-specific aspects of emotion, how emotions, some aspects of emotion could be universal, and some aspects of emotion could be very culture-specific, where some cultures experience and express emotion in a very particular way, which is not there in other cultures. We also discussed the physiological aspects of emotions. We cannot separate it from the biology, whenever we experience emotion, it influences our body and different aspects of the body, including brain, hormones, and so on. All this biological aspects we have also discussed.

We have also discussed self-conscious emotions, such as shame and guilt, which are related to the development of self-awareness. Your sense of individuality, your sense of me as a separate individual, plays a very significant role in these emotions. We have discussed some of these self-conscious emotions and how they are important in the social context.

We have also discussed the concept of happiness and positive emotions. Positive emotion is very important, and it is connected to the sense of happiness. We discussed some of the theories and possibilities and interventions that we can use to enhance happiness in our life.

We also discussed group emotions. When people behave or find themselves in group situations or team situations, emotions play and express themselves in those situations.

We have also tried to discuss all these aspects. We also discussed the relationship between emotions and cognitions, how thought processes and cognitive processes influence emotions, and the other way around. Emotion influences our cognitions, particularly memory and decision-making judgments and so on. Those are also very interesting aspects of emotions.

We also discussed emotion-based disorders. Some disorders are very strongly connected to problems with emotions or where there is a lack of emotion regulation. We discussed more specifically depression and anxiety disorders.

Then we also discussed the concept of emotion regulation and coping, how to regulate emotions and do adaptive coping in the context of different challenges and stresses of our life. We discussed specific strategies and some theoretical perspectives from different directions.

At the end, we discussed the theoretical aspects of emotional intelligence and applications of emotional intelligence, more specifically in the context of workplace health and well-being. Today, we discussed developmentally how to kind of developmental aspects of emotional intelligence and where how we can do certain interventions.

These are some of the very important significant aspects of emotions we have discussed throughout this course, and I hope it will kind of enrich understanding of emotions for whoever takes this course. So, with this, I stop here. Thank you.