Advanced Cognitive Processes
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Lecture – 38
Cognitive Development – III

Hello and welcome to the course, Introduction to Advanced Cognitive Processes. I am Ark Verma from IIT, Kanpur and this is the final week of the course. During the last two lectures, I have talked to you about various aspects of development in the first lecture I talked to you about the biological aspects that affect human development their role of the you know heredity, genes, prenatal influences and so on and so forth. In the last lecture I talked to you about the initial abilities that a young one has bond with abilities relating to you know vision hearing taste smell motor abilities and so on and so forth.

We also talked to you about the various theories of cognitive development we talked to you about at length about Piaget's theory of development, we talked to you about information processing theories, knowledge acquisition theories, social cultural theories all of these various perspectives that look at how the cognitive development of the child really happens.

In today's lecture I will try and take this talk about development to a slightly different direction. I will talked to you about some of the interesting aspects you know remember this course is advanced cognitive processes. Some of the higher ability, some of the higher functions that children and adults you know deal with how the development of these kind of things happen. So, let us take this slightly further.

Ah one of the things that I mentioned when I was talking about Piaget's theory of you know concrete operations if I am right was this aspect of egocentric thinking children when they are very young they cannot appreciate what others are thinking you know they cannot appreciate the other perspective that basically is a is a very interesting thing because part of being an adult basically involves doing this exactly you know, part of being an adult involves understanding other peoples mind you know what is this person thinking about what is their expectations, what are their beliefs and assumption and so on and so forth. And this is something that you know that influences our behavior a lot this

is something that tells us how to behave in a particular how to behave with a particular person in a particular manner.

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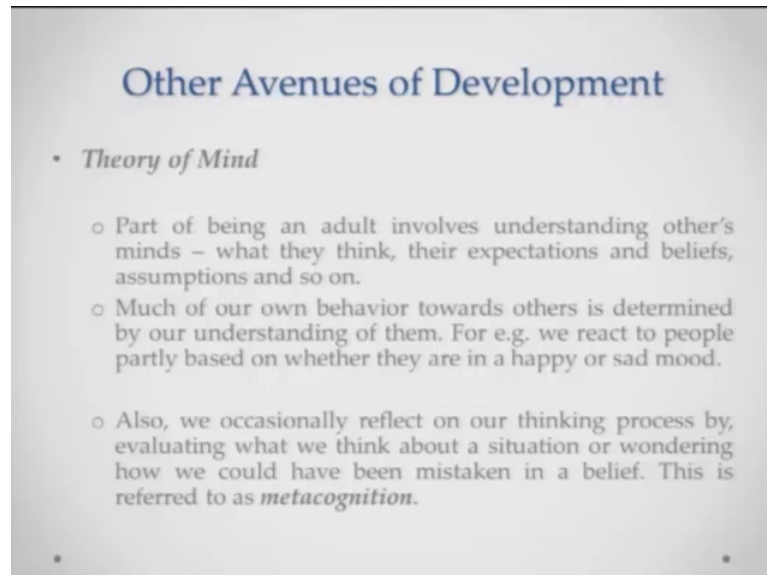
Suppose for example, you know you come back from school and you find you know you have to something to say to your father, but you notice that he is not really in a very good mood. Now is that the time that you will go and ask for you know raise in pocket money or something like that something that you know that he is really not going to be very happy about. As adults we kind of you know tackle around these problems very well we notice what is a good time to tell somebody something what is a good time to react in a particular manner to this particular person.

So, when you know this ability is not something that also suddenly really happens I am very much appreciate this idea of looking at development as a continuum and not really as you know stages where one stage ends and something else kind of happens almost out of nowhere. So, this is something that the child has to learn you know we the children have to grasp this and they have to um, you see that children when they are younger they are not really very mindful of what others are thinks.

Suppose for example, if they are you know stuck on asking for something if we are kind of stuck on being stubborn about some particular thing and they are being kind of you know very you know they are kind of being very picky and they are kind of you know being very finicky and stuff these things kind of get lesser and lesser as the child grows

up and earlier when these things will be happening irrespective of whatever the mood of the parent is you will see that even if children have to you know be stubborn and they have to be ask about something incessantly they will wait for the right time. They will automatically grasp that ok, today you know it is not a great time to talk the father it is not a great thing to talk to the mother about and these things also they are developing.

So, when you are talking about cognitive development when you are talking about overall development of an individual these are also skills that you should look at we should look at actually and a how is the development of these scales happening. Part of all of what we what I was just talking about comes under this you know bigger concept of theory of mind. Another term for this is this aspect of metacognition you know we occasionally reflect on our thinking process as well. By evaluating what we would do in a particular situation or you know wondering how we could have been you know believing in something that was not correct. So, you are also we are also looking at ourselves in some sense. So, that is referred to as metacognition.

So, these two things metacognition and theory of mind and they are kind of you know very related concepts is also a psychologists have been interested in looking at how was these theory is developing, how does the child start appreciating somebody elses you know point of view perspective so on and so forth.
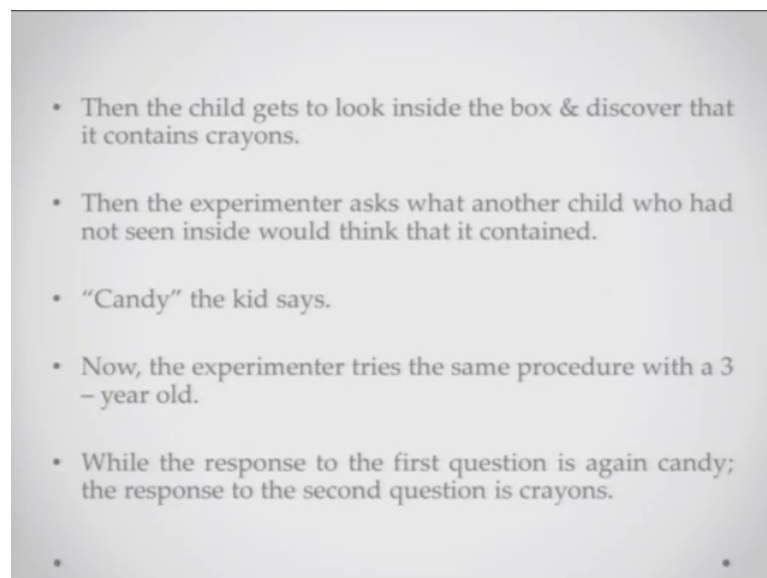
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- In recent times, psychologists have become interested in how metacognition or *theory of mind* develops.

- Researchers have studied children's knowledge about basic mental states, such as desires, percepts, beliefs, knowledge, thoughts, intentions, and feelings.

- In an interesting experiment, an experimenter shows a 5 – year old kid a candy box with pictures of candy on it and asks her what she thinks it contains.
- "Candy" she replies.

So, researchers basically have attempted to study the child's knowledge about these basic mental states such as desires, percepts, beliefs, knowledge, thoughts, intentions, feelings etcetera and they have been doing this by devising very in you know innovative experiments very highly you know engineers experiments.

Ah one of the experiments in one of a very interesting experiment basically an experimental basically you know it he is holding a box and this candy box has pictures of candy on it and then he shows this box to this 5 year old kid and he asked to the kid that what does this box contain and the kid basically looks at the box and you know he just say is that that box must contain candy.
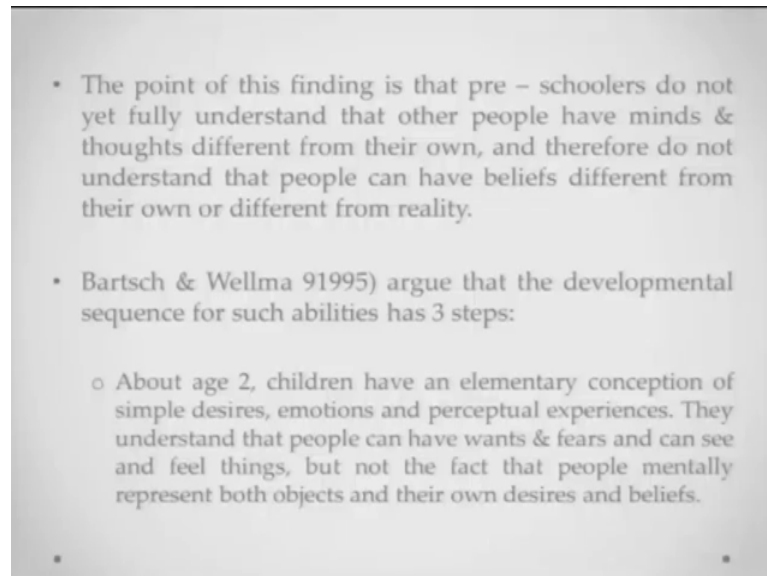
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- Then the child gets to look inside the box & discover that it contains crayons.

- Then the experimenter asks what another child who had not seen inside would think that it contained.

- "Candy" the kid says.

- Now, the experimenter tries the same procedure with a 3 – year old.

- While the response to the first question is again candy; the response to the second question is crayons.

Now, the interesting thing happens you know in the then after the answer is got the child is asked to look inside the box and do the child surprise.

The child discovers that the box has crayons instead of candy now then the experimenter asks now you know that there is crayons here, but not candy how do you think the other person this other friend of yours who have not really shown what is inside here what would he think that is there in this box? So, the child answers candy now what happens is. So, I mean just hold on with this one now the what happens is the experimenter tries the same procedure with a 3 year old kid. So, the first set first 2 questions have been asked to 5 year old kids.

Now, what the experiment does is let me do this with a 3 year old kid same question same kind of procedure the first answer is again candy, but when you ask the child that the second question you know what will the other person think that is there in this thing now that you know that there are crayons the child kind of answers that no I think the other person will also think that there are crayons.

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- The point of this finding is that pre – schoolers do not yet fully understand that other people have minds & thoughts different from their own, and therefore do not understand that people can have beliefs different from their own or different from reality.

- Bartsch & Wellma 91995) argue that the developmental sequence for such abilities has 3 steps:

  o About age 2, children have an elementary conception of simple desires, emotions and perceptual experiences. They understand that people can have wants & fears and can see and feel things, but not the fact that people mentally represent both objects and their own desires and beliefs.

What is happening here if you kind of pause it and think here what is happening is that the preschooler the 3 year old child has not really has not really developed this ability to fully understand that other people also have minds and thoughts which are different from the their own you know because the child was shown the crayon and the child kind of now cannot really check whether it is not conscious of the fact that the other person has not really seen that there are crayons here and they will think based on the picture and based on the box that it is candy here because the child knows that now I know that there are crayons here the child also believes that the other person also knows that there are crayons in this box.
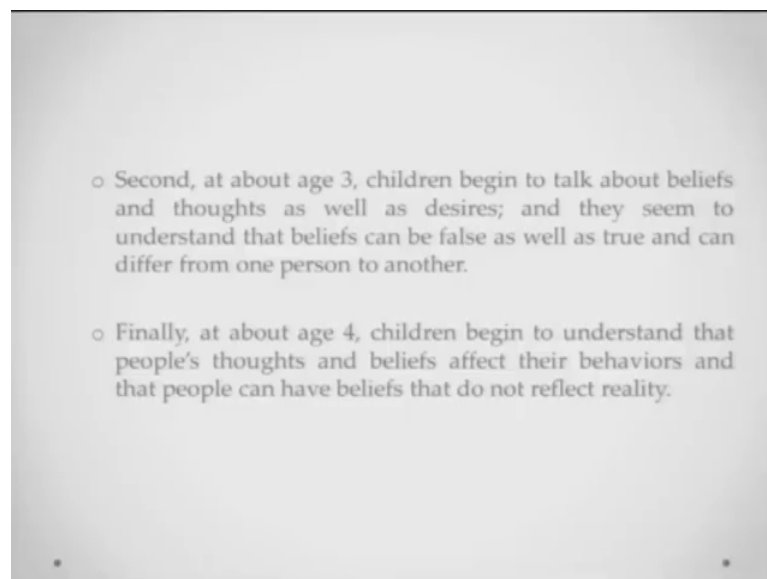
So, this is something you know the child needs to grasp, the child needs to develop and master over the course of time. So, Bartsch and Wellma basically they did this you know experiment in 1995 they basically argued that the developmental sequence of you know things like metacognition theory of mind basically has three steps. So, what are the three

steps? About around the age of 2 years, children have an elementary you know conception of simple desires emotions and perceptual experiences, ok.

So, they basically know that people have simple desires like I want to have milk, I want to have sweet etcetera. They have a very rudimentary understanding of emotions you know for them as I was saying earlier if a desired outcome is there I am happy, if an undesired outcome is there I am not happy something like that, ok. So, there are very rudimentary understanding of both desires and emotions and perceptual experiences. They understand that people you know can have wants and they can be afraid of things they can like things and they cannot like things, but they do not really appreciate the fact that people mentally also represent both objects you know and their own desires and beliefs.

So, they these things are not really well drafted out in their brain.

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o Second, at about age 3, children begin to talk about beliefs and thoughts as well as desires; and they seem to understand that beliefs can be false as well as true and can differ from one person to another.

o Finally, at about age 4, children begin to understand that people's thoughts and beliefs affect their behaviors and that people can have beliefs that do not reflect reality.
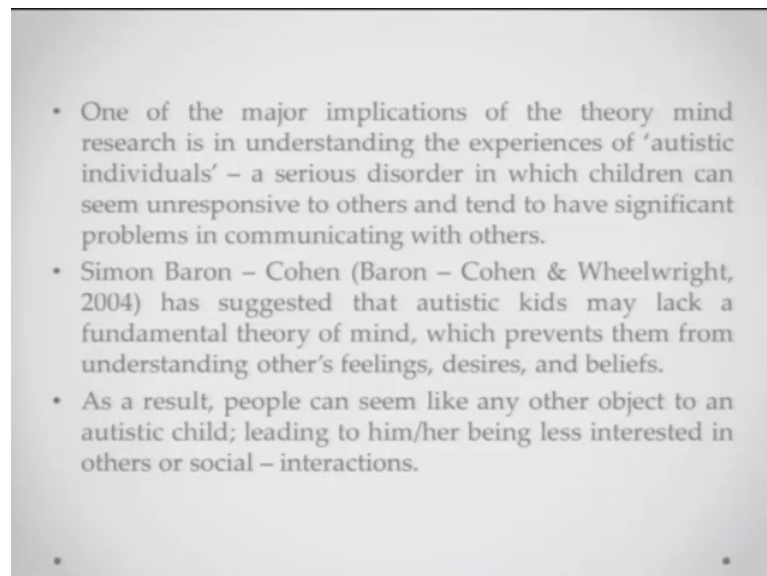
In the second stage which is around 3 years of age children begin to talk about beliefs and thoughts as well as desires. So, they kind of now start talking about that you a reality or something else desire or something else, but there are beliefs as well somebody can think and you know in a slightly more abstract fashion as well and at this stage they seem to understand that beliefs can be false as well as true. So, they now you know beginning to grasp these higher order kind of you know activities and that they also start

appreciating that you know beliefs can differ from people to people. A different people can have different sets of beliefs.

Finally, at around the age of a 4 children begin to understand peoples thoughts and beliefs you know affect their behaviors and that people can have beliefs that do not affect reali[ty]- they do not affect reality. So, the ideas they start you know thinking in terms of that you know other people can have different kinds of thoughts other people can have different kinds of beliefs and different people believe in different ways because of their own thoughts and beliefs which might not be exactly the same thoughts and believe that the that I am having for that matter as a child.

So, these are the three stages in which this you know the aspect of a development of theory of mind has been you know captured and has been proposed.

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- One of the major implications of the theory mind research is in understanding the experiences of 'autistic individuals' – a serious disorder in which children can seem unresponsive to others and tend to have significant problems in communicating with others.
- Simon Baron – Cohen (Baron – Cohen & Wheelwright, 2004) has suggested that autistic kids may lack a fundamental theory of mind, which prevents them from understanding other's feelings, desires, and beliefs.
- As a result, people can seem like any other object to an autistic child; leading to him/her being less interested in others or social – interactions.
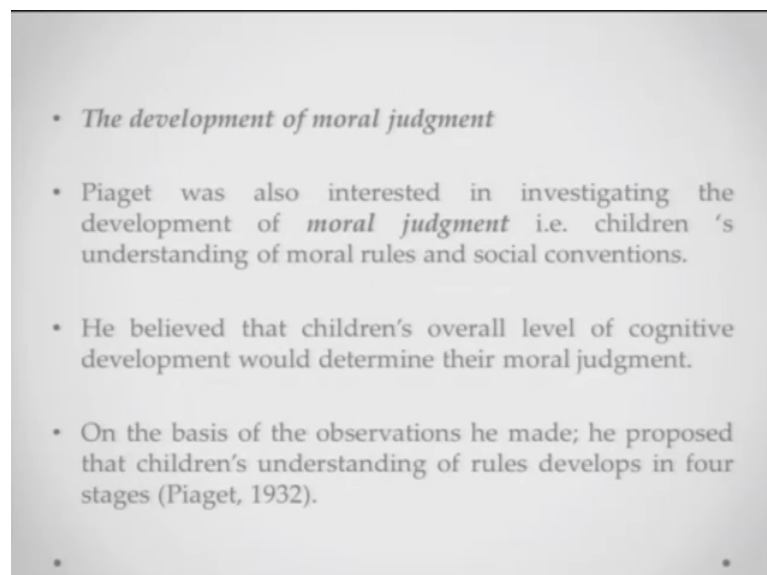
Now, one of the major implications one of the major applications let us say of the theory of mind research is in understanding the experiences of autistic individuals. Now, you might have heard of autism it is a serious disorder in which a children seem unresponsive you know to others and they tend to have a significant problem in a communicating with others building social you know relationships and those kind of things. One of the one of the very characteristic things is that these children seem a very little interested in interacting our socially communicating with the individuals. Say for example, they might

not really be emotionally very expressive they will not smile a back at you if you smile at them and those kind of things.

Now, a Baron-Cohen, Simon Baron-Cohen basically suggested that autistic kids might be lacking this fundamental theory of mind you know, this understanding of what the others are feeling or say for example, this aspect of metacognition about a reflecting about their own thought processes and a stuff which might be preventing them from understanding others feelings, desires and beliefs as well. So, this this can be one of the major symptoms or factors in you know people who are and a children who are suffering from autism.

Now, because this fundamental theory of mind is absent people can you know seem like any other objects to these autistic children you know it is just like a table you know a. So, a person is just equivalent to a table or a chair and does not really need an emotional interaction to develop a bond leading to these children being very less interested in a others or in a you know different kinds of social interactions. So, this is again one of the very interesting aspects a higher order ability that children develop over the course of their life.

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- *The development of moral judgment*

- Piaget was also interested in investigating the development of *moral judgment* i.e. children 's understanding of moral rules and social conventions.

- He believed that children's overall level of cognitive development would determine their moral judgment.

- On the basis of the observations he made; he proposed that children's understanding of rules develops in four stages (Piaget, 1932).

Another higher order ability that children tend to develop gradually is this is this sense of moral judgment. So, Piaget was not only interested in cognitive development, but he was also interested in children children's moral judgment as well you know how does the
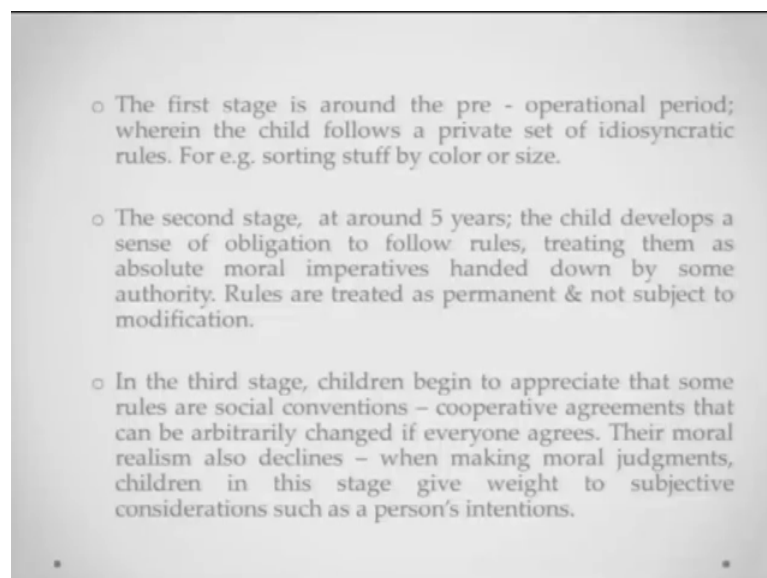
child appreciate a good and bad how does the child differentiate from what is right and what is wrong you know their understanding of moral rules what is right, is right is there an absolute thing that is right or wrong or these are social convention there are there are ways in which societies expect you to behave, there are conventions that we follow.

So, Piaget the kind of you know he basically believes that the overall level of cognitive development you know the children's overall level of cognitive develop will basically determine their moral judgment as well. So, it is it is a bit like saying that you know people in the formal operational stage have better moral understanding as compared to children who are in the concrete or you know pre operational stages as well. So, those kind of things.

Now, on the basis of the observations that Piaget made you know he used to observe a lot of kids and spend a lot of time with them observing their minute activities. So, on the basis of the observations that Piaget made he proposed that children's understandings of rules develops in four stages. Now, before I really start talking about this rules are a good way of appropriating the sense of moral judgment, but they might not be you know they might not really reflect the more richer sense of models, but again we are talking about children's development so, this we can use this as a reference to talk about.

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o The first stage is around the pre - operational period; wherein the child follows a private set of idiosyncratic rules. For e.g. sorting stuff by color or size.

o The second stage, at around 5 years; the child develops a sense of obligation to follow rules, treating them as absolute moral imperatives handed down by some authority. Rules are treated as permanent & not subject to modification.

o In the third stage, children begin to appreciate that some rules are social conventions – cooperative agreements that can be arbitrarily changed if everyone agrees. Their moral realism also declines – when making moral judgments, children in this stage give weight to subjective considerations such as a person's intentions.

Now, the first stage Piaget suggests is around happens around the pre-operational period wherein the child you know follows a set of private idiosyncratic rules you know, I like

this. This seems right to me, I will do this. Ok, those kind of things. Say for example, and by this stage children also start looking at the environment in terms of features and categories. So, you know if you ask this child to sort play items using color or size or shape they might be able to do it. So, there is a certain degree of cognitive development which is leading to follow a particular kind of a modeled is it is not really a very close link by the way.

Ah, in the second stage which is happening around 5 years the child develops a sense of obligation to follow rules you know given the kind of a environment and society children are brought up in the child starts to think that you know this is a rule and this must be followed, ok. it treats the child starts treating these rules as absolute moral imperatives handed down by some authority. So, my mother has said this, I will follow this verbatim and on you know hundred times sort of hundred or my teacher has told me that this has to happen and I have to follow this hundred times out of hundred. So, this is you know. So, their understanding of rules is rigid in some sense, but it kind of a reflects a degree of a lack of understanding that is what I mean we can kind of a we might be mixing this some things up here.
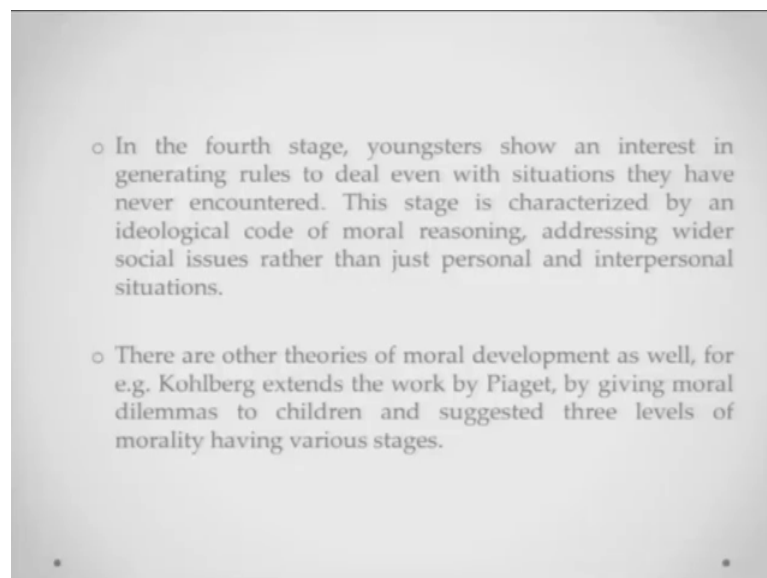
Now, in the in the third stage, children begin to appreciate that rules you know some rules for that matter are just social conventions. You know their cooperative agreements that can be arbitrarily changed if everyone agrees suppose for example, you know parents tell their children to share stuff now, till a particular time the child will blindly obey that you know my mother has said that I have to share things and I should share things irrespective of whatever is happening by a certain age the child's starts appreciating the fact that it is just a suggestion that if two people are agreed they have to share. But the child will also start a breaching the fact that you cannot share at a given point if you do not like the person if the person is not sharing back those kind of things, ok. So, children start realizing that rules are just social conventions made by a people and are changeable can be worked around with, ok.

Ah their moral realism also declines. Earlier rules are treated as permanent and not subjected to modification, in the second stage. By this stage their moral realism also kind of starts declining they will start taking into account other and more sophisticated more richer factors. For example, they are moral you know they will when talking about moral judgments when talking about deciding punishments as the etcetera, children in this stage

start taking into account things like intentions you know and the you know you know the consequences and those kind of. Say for example, in the second stage if somebody has broken a rule he deserves a punishment you know you spoke in the class you broke something you are not supposed to break this.

So, now, that you have broken this you have to get this quantum of punishment again that is kind of given by sources of authority. By this third stage what we are says is that children start taking into account things like he did not intend to break it. So, he does not deserve the punishment even though something is broken and the rule is violated. So, this is how basically this is you know really panning out.

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o In the fourth stage, youngsters show an interest in generating rules to deal even with situations they have never encountered. This stage is characterized by an ideological code of moral reasoning, addressing wider social issues rather than just personal and interpersonal situations.

o There are other theories of moral development as well, for e.g. Kohlberg extends the work by Piaget, by giving moral dilemmas to children and suggested three levels of morality having various stages.

Ah, now the final in the fourth stage youngsters start showing an interest now I am talking about adolescents and young adults by this time a youngster starts showing and showing an interest in generating rules to deal with situations they have never encountered, ok. So, they have kind of now figured out how the moral thing of the how the moral fabric of the word is working and the kind of also you know generating rules and generating rules and principles for sometimes situation that they have not really encountered themselves even. You know this stage is characterized by an ideological code of moral reasoning you know I believe in these ideas and my reasoning would work according to these ideas.

Addressing wider social issues say for example, people should be kind to everybody you should not treat animals badly all those kind of things and these broad you know ideological codes start showing in you know and this children start youngsters start using them in their personal and interpersonal situations very liberally across the board. Suppose, say for example, a young adult is a smitten by a particular kind of ideology or they starts following a particular kind of idle then those kind of things they will start appropriating you know in different situations.

Now, there are other theories of moral development as well for example, Kohlberg has done a lot of work on moral development in children and he basically extends the work by Piaget start he and the typically what he did was he started giving children you know moral dilemmas to solve. We have talked about personal moral dilemmas earlier he would give a problems to children say for example, you know if there is a child whose mother is sick and you know the child goes to the medicine shop, he does not really have enough money to buy the medicine. So, the child steals the medicine brings that and you know brings that medicine and gives it to his mother.

Now, is he has he done a right thing or a wrong thing? If I ask this question to children of different ages I will expect to get a different kind of response and on the basis of the kind of response that is got Kohlberg divided the development of a children or development of moral reasoning into three levels which have kind of a 6 stages. So, I will not really go into a lot of detail, but I will just tell you how the 3 years you know levels work.

Stages of moral reasoning

Kohlberg believed that moral judgment develops with age according to these stages. (Kohlberg, L. (1969), 'Stages of Moral Reasoning', from 'Stage and Sequence: The Cognitive Development Approach to Socialization', in Handbook of Socialization Theory and Research, D. A. Goslin (ed.). Reprinted by permission of Rand McNally.)

Level I	Preconventional morality
Stage 1	Punishment orientation (Obeys rules to avoid punishment)
Stage 2	Reward orientation (Conforms to obtain rewards, to have favors returned)
Level II	Conventional morality
Stage 3	Good-boy/good-girl orientation (Conforms to avoid disapproval of others)
Stage 4	Authority orientation (Upholds laws and social rules to avoid censure of authorities and feelings of guilt about not 'doing one's duty')
Level III	Postconventional morality
Stage 5	Social-contract orientation (Actions guided by principles commonly agreed on as essential to the public welfare; principles upheld to retain respect of peers and, thus, self-respect)
Stage 6	Ethical principle orientation (Actions guided by self-chosen ethical principles, which usually value justice, dignity, and equality; principles upheld to avoid self-condemnation)

Image: Nolen – Hoeksema, S., Loftus, G., & Wagenaar, W. (2009). Atkinson – Hilgaard's Introduction to Psychology. Cengage Learning. Page 87.

So, the first level is preconventional morality. So, preconventional morality is they are basically characterized by you know orientation towards punishment. You know you obey rule to avoid punishment you disobey as soon as you disobey you deserve a punishment things like that ah. The second stage is that orientation has to be reward you know people confirm to particular kinds of instruction to particular kinds of a moods of thought to obtain rewards and to have favors returned say for example, if I believe this if I agree with you here I expect you to agree to me at a different point in time.

Then comes conventional morality a conventional morality basically has this good boy good girl kind of orientation you know if I follow this moral code I will be considered as a good boy by my teachers by my parents by my friends etcetera ok. So, the child is basically confirming he do not really understanding the moral code as yet, but he is just confirming that if I have six sticks in all in these columns then I am considered a good boy and I will take every effort to not take any of these columns.

So, this is something and the fourth stage here this part of the second level basically is about authority orientations. So, the children will basically or that this stage basically talks about upholding laws and social rules to avoid censure of the authorities and feelings of guilt about not doing ones duty are also you know can be experienced. So, I am doing whatever I am doing because my father has said this if I do not do it then I will probably be in trouble or if I am doing this because my teachers have said this my school

principal has said this if I am not doing this I might land up with punishment. So, this is the preconventional morality and that is the conventional morality which generally you know the society kind of tends to follow at large.

Now, the third is the post conventional morality the this is when you are talking about when children have achieved a certain degree of motivation certain degree of a mature you know maturity. So, then they kind of start looking at things as you know the social contract orientation is there. Actions are guided by principles commonly agreed on as essential to the public welfare and his principles are a basically upheld to retain the respect of peers and thus also self respect.

So, now you doing something now you are not hurting animals because it is not like somebody will punish you, but it is because you want to be seen as a kind person you know. So, you are aspiring to that you know a personal goal of kindness and that is why you are not doing, nobody is forcing, there is nobody looking at you there is no punishment reward looming on your head, but the fact is you are doing certain things. So, that you kind of you know obey a sort of a social contract and the social contract is basically something that is in the larger good of the society. So, those kind of things.

Finally, there is this ethical principle orientation again kind of I mean there are things that are overlapping here. actions guided by a self chosen ethical principles which usually value justice dignity equality and the principles are helps to avoid self condemnation I will feel very bad if I do not do it I will feel have this code of conduct suppose or say for example, you know you divi[de]- you people will start looking at themselves and having xyz characteristics these are this is my code of conduct this is what I think should be done, this is what I think should not be done. My personal code of conduct says I should not teach I should not cheat I should not lie I should not hurt others. So, whatever I am going to do is going to be governed by this you know set of rules? So, personal so, a self condemnation needs to be avoided.

So, these are the three kinds of morality this is basically the progression given and again I am not really saying that strict age why is a rule kind of needs to follow this, but this is how the development of moral reasoning might happen as far as you know Kohlberg is concerned. So, Kohlberg basically believe that you know individual develops with age across these three stages.

Now, let us talk to a different aspect of development and you have talked about you know a moral development moral you know metacognition theory of mind and moral judgment. Now, let us talk a little bit about the emotional development part of an individual. Now, emotional development basically also has aspects of nature and nurture one of these aspects that is more biologically predetermined is this aspect of temperament now temperament basically refers to individuals individual differences in attention in arousal and reactivity to new or novel situations, ok.

So, these differences basically start appearing very early when the child is just born and they are relatively stable and they are long lasting suppose for example, there is a finicky child very unhappy, very difficult to handle child. It is highly probable that part of these characteristics will continue throughout the child's life, ok. So, this is the biological aspect of emotional development.
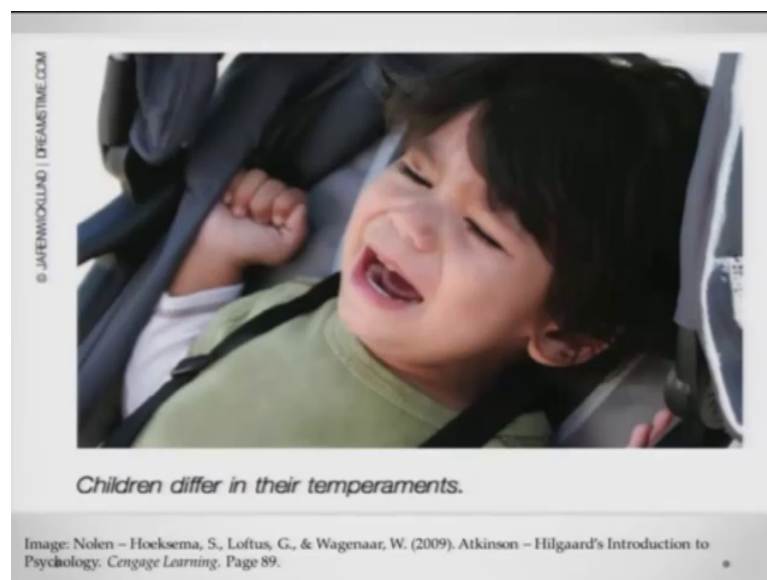
Thomas and Chess, 1997 they divided infants into 4 categories based on temperament rating. So, they could measure temperament let me say that 4 kinds of temperaments can be observed let me just very quickly tell you about them a easy babies are happy and cheerful babies. They have regular sleeping and eating habits they adapt very quickly to new situations and they basically form around 40 percent of the sample. Now, again I am talking about the sample; sample is US based ok. So, these studies are basically conducted in the US, there is about 40 percent the sample that they have in mind. There

are slow to warm up babies, but you know who takes some time before they will be comfortable with you, ok.

So, about 15 percent of the sample they are slightly more withdrawn they are very moody and they tend to take a long time to adapt to new situations. So, this is the second kind. Then there is this difficult babies it is just around 10 percent the sample, but they are very fussy they are fearful of new situations they will not really react to strangers nicely and they are very intense in their you know reactions if they are crying they are crying too loudly, they are crying very intensely and those kind of things.
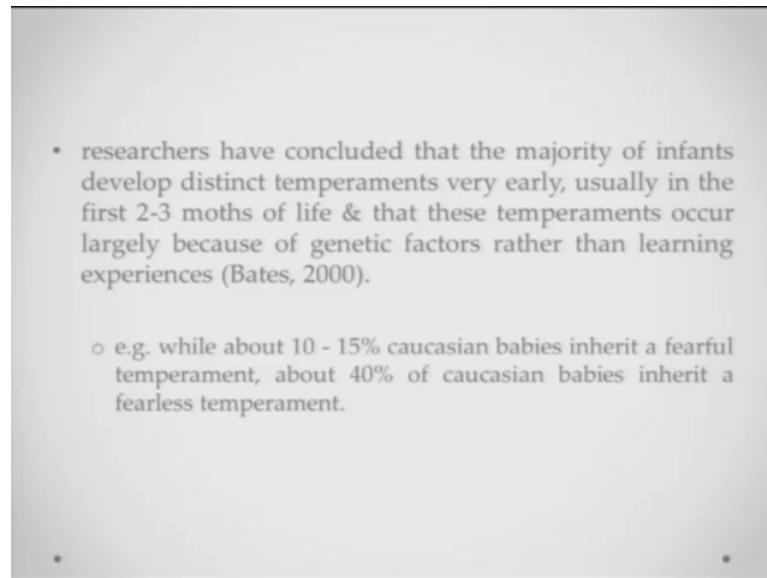
Now, one of the other things it is not really a category is that you know some babies do not fit to any of these categories. This is by the way a long large number it is around thirty 5 percent of the entire sample which will have a variety of traits and they will share all of these traits from the other 3 categories. So, there are 4 kinds of situations here 4 categories you can imagine and these are the 4 categories in which you can broadly divide a particular you know sample of children say a children can differ in their temperament.

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Children differ in their temperaments.

Image: Nolen – Hoeksema, S., Loftus, G., & Wagenaar, W. (2009). Atkinson – Hilgaard's Introduction to Psychology. *Cengage Learning.* Page 89.

- researchers have concluded that the majority of infants develop distinct temperaments very early, usually in the first 2-3 moths of life & that these temperaments occur largely because of genetic factors rather than learning experiences (Bates, 2000).

  o e.g. while about 10 - 15% caucasian babies inherit a fearful temperament, about 40% of caucasian babies inherit a fearless temperament.
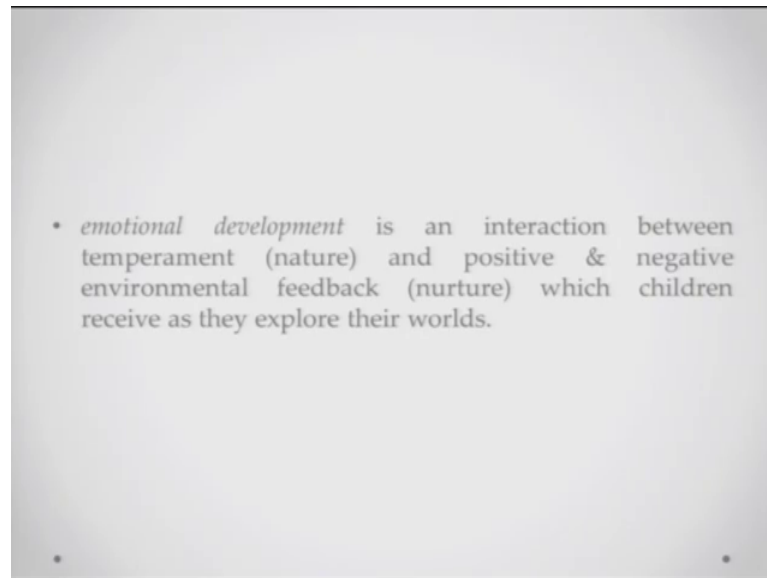
Now, researchers have concluded that majority of infants develop a distinct temperaments very early you know usually in a first 2 to 3 months of life and that these temperaments they occur largely because of genetic factors rather than learning experiences because you start measuring temperament because you start talking about temperament.

Even you know just at their time when the child is born you know you can just look at you can just see and observe that that this child is going to be very tricky to handle you know, this child starts crying as soon as he is separated from his mother, this child is a slightly fussy about particular habits you know he has irregular sleeping and eating habits. These are the things that you can start make out already by the time that the child is born and so, a researchers have concluded that this has to be more of a biological trait, biological characteristic rather than something that the child has learned from the environment you know learn from the parents or siblings or peers.

Now, so, while about 10 to 15 percent of Caucasian babies inherit a fearful temperament, about 40 percent of Caucasian babies inherit of fearless temperament. So, again it that distribution could be very different across different kinds of population.
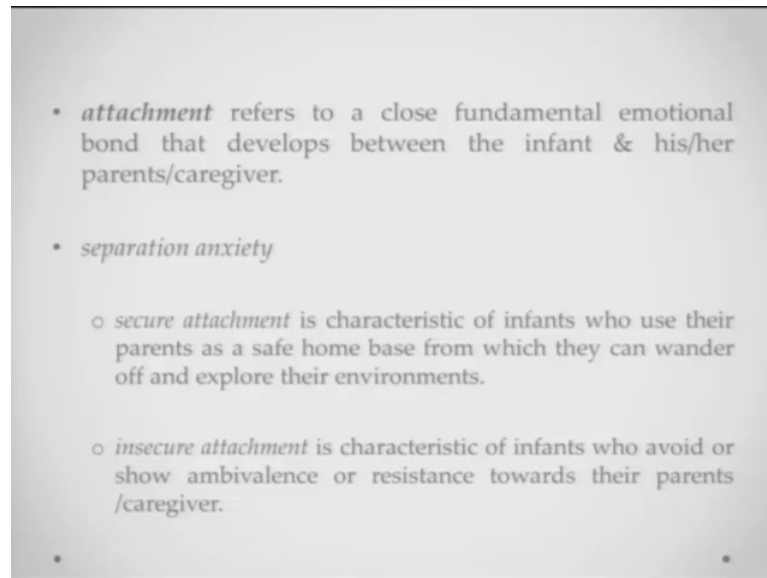
- *emotional development* is an interaction between temperament (nature) and positive & negative environmental feedback (nurture) which children receive as they explore their worlds.

Now, emotional development basically has to be an interaction between the temperament, that is, the nature part of the thing how is the general temperament or nature of the child versus positive and negative environmental feedback, how is the how are the parents reacting to the temperament of. Suppose, there is child who is born with a very happy temperament, but the parents are really you know not reacting to the child in a in a in a consistent manner, they are not really treating the child where the emotional bond is not being formed they are giving irregular punishments to the child they are not taking care of the child then this child who was born with a happy temperament as well will develop you know a problems, will develop a problems later in the thing and he will become you know developed to be more irritable fussy and so on and so forth.

And, same can be done vice versa as well. Even if the child has a very fussy temperament, but if the child is brought up well and the parents have taken care of a having the child very comfortable inculcating that kind of confidence and trust in the child encouraging the child to do his own things then maybe that that part you know that initial temperament factor can be kind of a slightly you know a moderated or nullified in some sense. So, emotional development has to be a combination of the nature and the nurture parts we will kind of talk about this a bit more now.

- *attachment* refers to a close fundamental emotional bond that develops between the infant & his/her parents/caregiver.

- *separation anxiety*

  o *secure attachment* is characteristic of infants who use their parents as a safe home base from which they can wander off and explore their environments.

  o *insecure attachment* is characteristic of infants who avoid or show ambivalence or resistance towards their parents /caregiver.

Ah, one of the other aspects very early in the child's life span is the kind of attachment and the child develops to the immediate caregivers parents and you know people around. The child attachment basically refers to a very close you know a very fundamental emotional bond then it is the child develops with his or her parents or caregivers and attachment basically you know a kind of a or absence of attachment or you can actually look at the kind of attachment by measuring a particular concept called a separation anxiety.
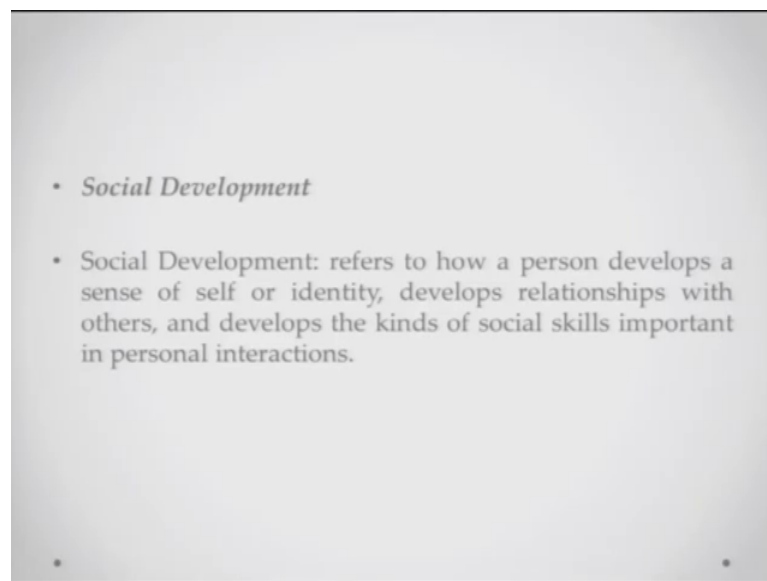
A separation anxiety is basically measured by the you know the amount of problem that the child has with you know with respect to say for example, if the child is separated from the caregivers. If suppose the mother is you know bringing the child up and the mother is always there for the child is constantly around the child to help him make him feel secure and confident and everything. But as soon as the mother goes the child starts crying you know the degree of distress that the child will feel when being separated from the immediate caregiver is going to give you a bit of a measure of what separation anxiety is.

Now, there could be two kinds of different kinds of attachment patterns that the children might display the first is a secure attachment. So, secure attachment is basically characteristic of infants who use their parents as a safe home as a safe base from which they can wander off and explore their environment. So, the child is kind of confident that

you know the mother or the father will take care of the child and because they are here they are they are somewhere around and have this feeling that they are looking over me I will explore the environment, be very confident because I know nothing bad is going to happen explore the environment and come back.

Insecure attachment is a it is characteristic of infants who avoid or show ambivalence or resistance towards their parents. So, if the parents behavior is not consistence if it is not confidence inspiring, if the child is not really being able to trust the you know the parent very much then the children will you know show insecure attachment and then the separation anxiety would also be in a differently manifested. So, these are these are some of the things about emotional development let us talk a little bit about social development.
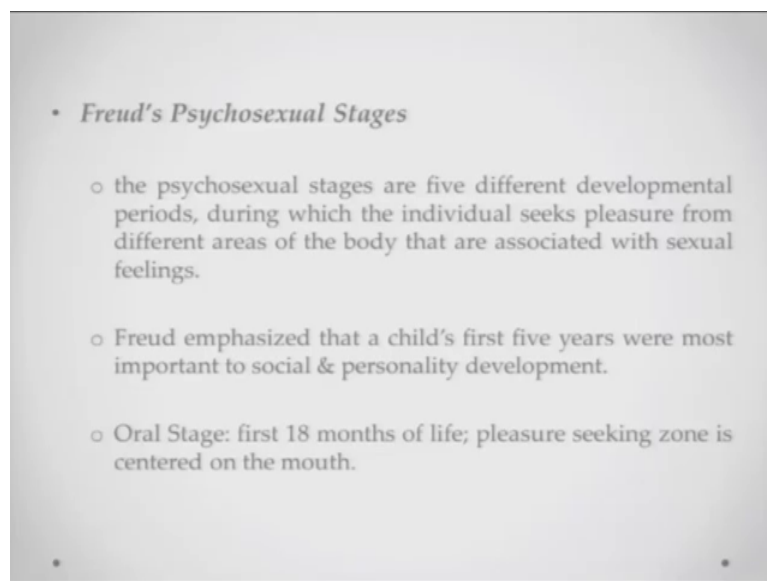
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- *Social Development*

- Social Development: refers to how a person develops a sense of self or identity, develops relationships with others, and develops the kinds of social skills important in personal interactions.

Now, social development when I am talking to you is a basically show social development refers to how a person develops a sense of self or identity see individuals do not come into this world all alone and this world does not leave them alone as well. So, the child's is immediately you know surrounded with immediate caregivers they keep telling the child something you do this, you do that and the kind of interact or the kind of react to how the child is developing they may have say if the child is doing a lot of good things, they encourage the child, praise the child is a child is doing a lot of bad things, they reprimand a child, they scold the child, they react accordingly.

Ah given this interaction between the biology and the environment a person develops a sense of self or identity. I am this person, this is what my you know a moral code is, this is what my ideological code is, this is what I should do, these are my abilities, this is what I want to become all those kind of things, all of this kind of gets included in the you know development of self or identity. The relationship that the person is going to have with others friends, peers, parents and this the kind of social skills that the person is going to develop all of these personal interactions all of this forms the social development thing.

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- *Freud's Psychosexual Stages*

  o the psychosexual stages are five different developmental periods, during which the individual seeks pleasure from different areas of the body that are associated with sexual feelings.

  o Freud emphasized that a child's first five years were most important to social & personality development.

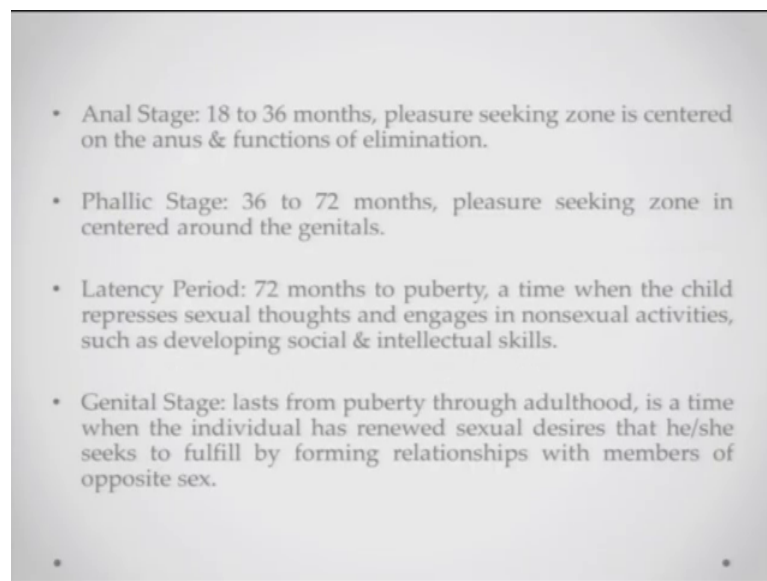 o Oral Stage: first 18 months of life; pleasure seeking zone is centered on the mouth.

I am going to talk about a few theories of a social development one of the very dominant old popular theories of a social development was put forward by a Sigmund Freud. Sigmund Freud basically talks about development social development in terms of psychosexual stages. So, psychosexual stages is basically that because Freud believed that the social development has a lot to do with the sexual development of the child and the sexual development of the child has consequences for the psychological characteristics or the psychological makeup of the child. So, that is the link he is trying to make.

The psychosexual stages are 5 different developmental periods, during which the individual seeks pleasure from different areas of the body that are associated with sexual feelings and this is this interaction that you know ends up cumulating the social and

personality development aspects of the child. Suppose, the first stage is the oral stage a first 18 months of life pleasure seeking zone is centered around the mouth. If the child you know does not receive adequate gratification in this period adequate pleasure is not gained. Then the child tends to get fixated in this period and say for example, again Freud kind of goes on to say that these people will tend to become smokers later, all right.

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- Anal Stage: 18 to 36 months, pleasure seeking zone is centered on the anus & functions of elimination.

- Phallic Stage: 36 to 72 months, pleasure seeking zone in centered around the genitals.

- Latency Period: 72 months to puberty, a time when the child represses sexual thoughts and engages in nonsexual activities, such as developing social & intellectual skills.

- Genital Stage: lasts from puberty through adulthood, is a time when the individual has renewed sexual desires that he/she seeks to fulfill by forming relationships with members of opposite sex.
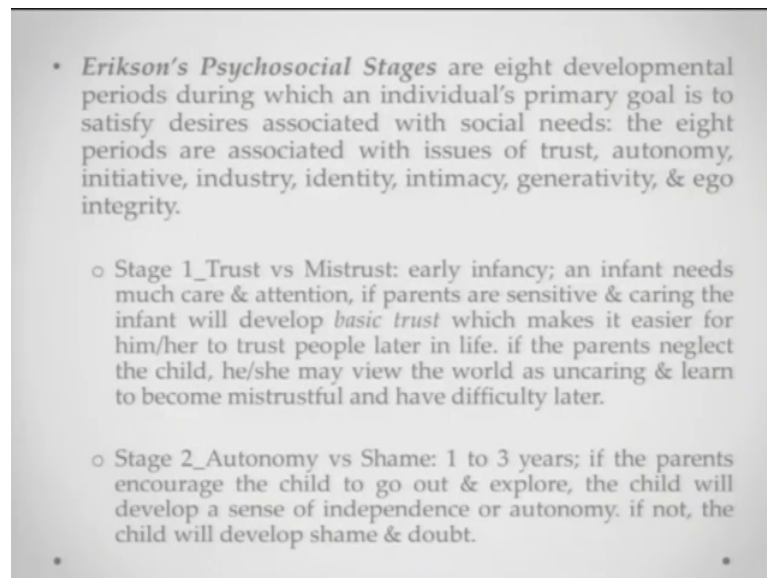
I do not really attach a lot of a scientific importance to these things, but again this is theory which is has been given is one of a being one of the dominant theories. So, we can talk about it a little bit. Anal stage 18 to 16 months of age pleasure zone a pleasure zone is centered around the anus and it is basically has to do with the function of elimination. Freud says if toilet training etcetera is not done properly if the that the conflict at this stage is not resolved properly children tend would tend to you know develop particular kinds of personality, obsessive traits and those of things.

Then there is phallic stage 36 to 72 months, pleasure seeking zone is around the genitals things like the Electra complex, Oedipus complex are kind of here there the child is competing with the parents of the same sex that kind of conflict is there and the way these conflicts are resolved will have a great bearing on how the child you know turns out to be. Then you have the latency period 72 months to puberty when the time when

the child represses sexual thoughts and engages in non sexual activities looking out, making friends, developing social, intellectual skills.

Finally, is the genetic genital stage from puberty onwards through adulthood is a time when the individual has renewed interest in sexual desires that he or she seeks to fulfill by forming a relationships with members of the opposite sex. So, this is the progression of what of the stages psychosexual stages that Freud gave.

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- *Erikson's Psychosocial Stages* are eight developmental periods during which an individual's primary goal is to satisfy desires associated with social needs: the eight periods are associated with issues of trust, autonomy, initiative, industry, identity, intimacy, generativity, & ego integrity.

  o Stage 1_Trust vs Mistrust: early infancy; an infant needs much care & attention, if parents are sensitive & caring the infant will develop *basic trust* which makes it easier for him/her to trust people later in life. if the parents neglect the child, he/she may view the world as uncaring & learn to become mistrustful and have difficulty later.

  o Stage 2_Autonomy vs Shame: 1 to 3 years; if the parents encourage the child to go out & explore, the child will develop a sense of independence or autonomy. if not, the child will develop shame & doubt.

Let us move to the psychosocial stages an Erik Erikson basically came up with this idea of 8 developmental periods during which the child's individuals primary goal is to satisfy desires that are associated with social needs. these 8 periods are kind of a you know they are centered around these you know computing qualities. So, I am just going to talk about them. So, stage one is trust versus mistrust. It is around the early infant a age an infant basically to begin with needs much care and attention. If parents are sensitive and caring the infant will develop what is called basic trust which will make it easier for him or her to trust people later in life, ok. If parents neglect their child, if they are inconsistent he or she may view the world as uncaring and learn to become mistrustful and have that sort of bitterness later in his personality.

Autonomy versus shame: 1 to 3 years of age, if the parents encourage the child to go out and play and explore if the child is encouraged and made more confident, he will develop a sense of independence and autonomy that is very important and if not then a

child will develop a lot of shame, doubt, self loathing and again this is not going to turn out in a good personality trait for the child.

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Then, there is initiative versus guilt 3 to 5 years of age. If the parents are encouraging initiatives that suppose the child goes on and makes new things or breaks a lot of thing, but he is looking for something, he is trying to do something new, the child needs to be encouraged at this time. If the child is kind of if the parents encourage this kind of initiative taking the children will develop the ability to plan and initiate new things. So, the child need to be given this feedback you are on the right path, do not worry if something bad has happened we will take care of this, what you do whatever you are interested in. Now, if children, if parents become very fussy and it discourage the initiative that the child has to take then it will kind of seed in feelings of guilt in the child you know and the child will not be confident enough to plan the future and these kind of things.

Industry versus inferiority is the fourth stage, 5 to 12 years of age; if the child can develop her energy to you know completing tasks and working you know through assignments he or she will develop this feeling of industry and competence you know. You will see children around 5 to 12 years of age they come up with the you know random missions that they have to complete spend in a lot of time and energy completing those kind of missions and your parents have to be supportive that of the of these kind of

things they should not really tell the child you know do not do this is very dangerous, do not play with these people, do not do I mean all those kind of things have to be kind of held back.

If because if the child starts having this difficulty in applying her abilities in completing tasks things like home works you know making something projects he or she will start developing feelings of inferiority. So, here is the stage where the parent needs to help and complement the child in whatever efforts he is taking whatever goals many goals that the child is setting and that is what will help child pass through this stage you know in a good way.
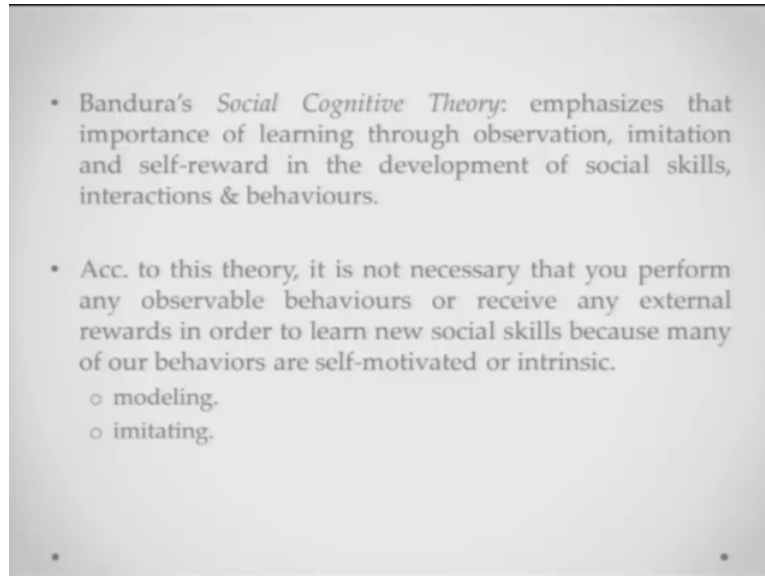
Stage 5 is identity versus role confusion you know adolescence time. If the child will be successful in making the transition from the impulsiveness of early childhood to the maturity of adulthood or young adulthood adolescence then the child will tend to be you know more responsible, purposeful and planned he or she will develop confidence and will also experience you know you will you know else the child will kind of start experiencing role confusion. If the child has made this transition easily has formed a proper identity because he is pass through earlier stages very well then the child will have the sense of purpose about himself. If the parents and if the child is not really come up through this then the kind of then probably the child will you know experience a lot of a problems.

Now, these are the stages of you know psychosocial development that were specified by Erikson and I am I am I i am sure you appreciate and the kind of thing. So, that the kind of a things that a Erikson talks about he talks about in reference to you know how important is the role of upbringing, how importance the role of parents and other social agents around the child to basically give the child a sense of a identity, purpose and you know a sense of happiness about a growing up and you know these kind of things.

Now, there are other theories of a social development as well say for example, Bandura's social cognitive theory basically emphasizes that the there is a lot of importance of learning through observation children learn through observing other agents they learn by imitating a other agents also they learn a lot about self reward you know, but in development of things like social skills interactions and behaviors you know these are

also kind of things that children are picking up. they will pick up a model and they will start doing whatever the model does.

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- Bandura's *Social Cognitive Theory*: emphasizes that importance of learning through observation, imitation and self-reward in the development of social skills, interactions & behaviours.

- Acc. to this theory, it is not necessary that you perform any observable behaviours or receive any external rewards in order to learn new social skills because many of our behaviors are self-motivated or intrinsic.
  o modeling.
  o imitating.

But the interesting thing is that children will basically be very attentive with respect to what kind of models they are picking up you know whether the model actually has a successful background or not, whether whatever the model does gets rewarded or not. You know this is the kind of model organism that the child is kind of a has chosen and it is trying to align his behavior to the model because the model is successful the model gets rewards and it is known and it is placed in society also children can just start sometimes blindly imitating you know they could just say for example, a father mother or a elder sibling.

So, you might also kind of end up just imitating without really having a bigger grasp of what imitation is a leading to because they do not really sometimes think that now what is the going to be the consequence of this I am just you know I like this person or this person is somebody close to me and I will just start imitating without really thinking about the consequences.
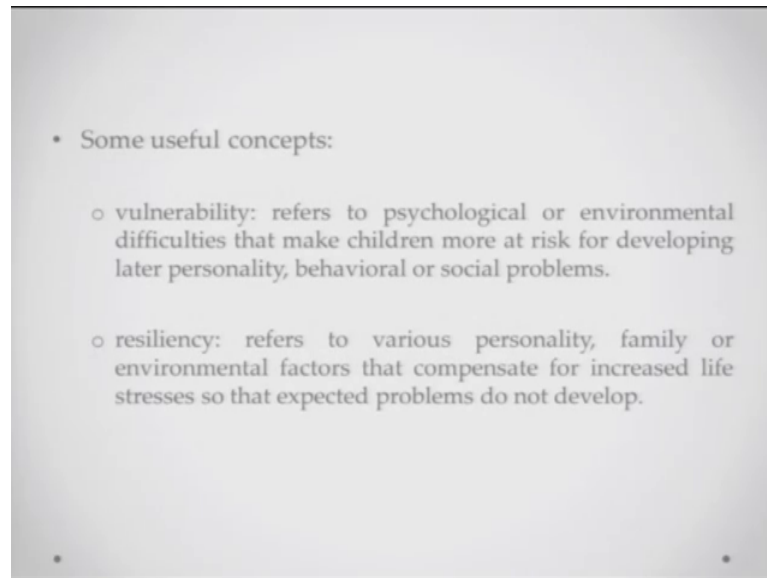
Now, in all of this a social development thing that we were talking about there are two concepts which are very interesting which are very important to remember. one of the concepts is vulnerability. Now, vulnerability basically refers to the psychological or environmental difficulties that make children you know they being feeling more at risk for developing later personality behavioral or social problems.
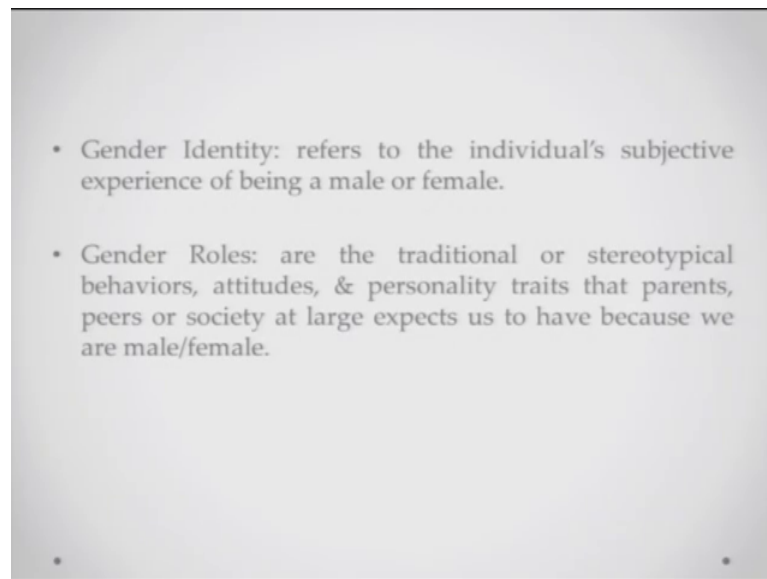
Suppose, if somebody is going through a very hard you know a time suppose say for example, their children who are being brought up in a places like Syria or other places which are marred by a violence those kind of things will have you know will definitely have impact on the children's development they will put them at risk for developing social personality disorders.

They will have a put children on the you know risk of developing mental disorder psychological disorders so on and so forth of vulnerability is something very important whether the child can actually go through all of these things and still develop into a healthy individual that is something that is that is you know given a lot of importance.

Another thing is very closely linked to is a resiliency you know. A various traits various characteristics of personality family and infant environmental factors that compensate for the increased life stresses you know. So, that the expected problems do not develop suppose for example, these children who are you know being raised in a in very difficult environments what is the social structure that they have. what is the kind of social setting

they have whether the family you know is still together and they are still kind of holding out properly they are still supporting the child encouraging the child telling the child that you know you have to bear these difficulties, later better times might come these kind of things delve are you know linked to the child you know getting this resiliency and these are the children who will probably bear these difficulties and kind of you know later develop into individuals.

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- Gender Identity: refers to the individual's subjective experience of being a male or female.

- Gender Roles: are the traditional or stereotypical behaviors, attitudes, & personality traits that parents, peers or society at large expects us to have because we are male/female.

Now, two other concepts are very important when you talk about social development one is gender identity and the other is gender roles. Now, there are two different things. Gender identity basically refers to the individuals experience of being a male or a female how do people react to you what are the things that you can do as you know you know as you are a male or a female, what is your experience of being a male of what are the things that naturally are coming to you that is now that is the at the individual level whether you feel like a male or a female those kind of things.

Gender roles on the other hand are traditional or stereotypical behaviors and attitudes and personality traits that parents or society peers at large expect us to confirm to because we are a male and female, we are either male or female and biologically. So, these two are different things you know sometimes and now that you know concepts like homosexuality etcetera are gaining you know their proper you know importance and acknowledgement in the society one needs to really wonder about these things. A gender

identity is something that is very personal and gender roles are things that the society is expecting you to do part of developing in a social world. Part of developing through the social things is also to keep a balance or a congruence between these two things and a if there is not if the congruence is not there their happiness and the you know development as socially is not going to be seamless it is not going to be problem free.

So, a lot of times and these things are important for other reasons saying for example, a lot of times children do behave in particular ways because the society expects them to do suppose. For example, a girl you know wants to become an engineer or a boy let us say wants to become a chef it might just have that you know the child just feels like I like cooking, I just want to go into the kitchen look at my mother help her do something and in the process learn this you know a extraordinary skill of a cooking. But, the gender roles are kind of you know not going to you know encourage him doing that and if there is this conflict between what the person wants to do in his skill in his identity then there is going to be conflict then there is a going to be unhealthy development the this is not really going to work out so well.

So, this is again something when you look at social development you have to kind of you know a take into account these things.

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- social role theory: emphasizes the influence of social & cognitive processes on how we interpret, organize and use information. Applied to gender roles, it says that mothers, father, teachers, grandparents etc. expect, respond to & reward different behaviors in boys than in girls.

- cognitive development theory: says that children develop mental skills and interact with their environments, they learn one set of rules for male behaviours & another for female behaviours.

The social role theory which we can talk about. Now, the social really role theory basically emphasizes the influence of a social and cognitive processes on about on how we interpret organize and use information.

So, we look at the society also through a social lens. We look at society say for example, if you apply this theory to gender roles it says that mothers, fathers, teachers, grandparents etcetera they expect and respond to and reward different behaviors in boys and girls and as I was saying. So, the child who is just you know who is in biology is a boy or a girl is just kind of a reacting to it is getting reinforced to commit certain kinds of behaviors because they are encouraged by the caregivers, because they are encouraged by immediate you know people around them.

And, a lot of times they saw say for example, stereotypes about female feticide stereotypes about you know a men not respecting women, stereotypes about men you know ogling girls and you know those kind of things are things that kind of get reinforced at a very early level you know. The society has taught that you know females are lesser beings you would have probably a people would have a seen in their families that you know a sisters are given less importance, brothers are given more importance their work is to do household chores and being a boy my work is to do something else. These are the things that the society is imposing.
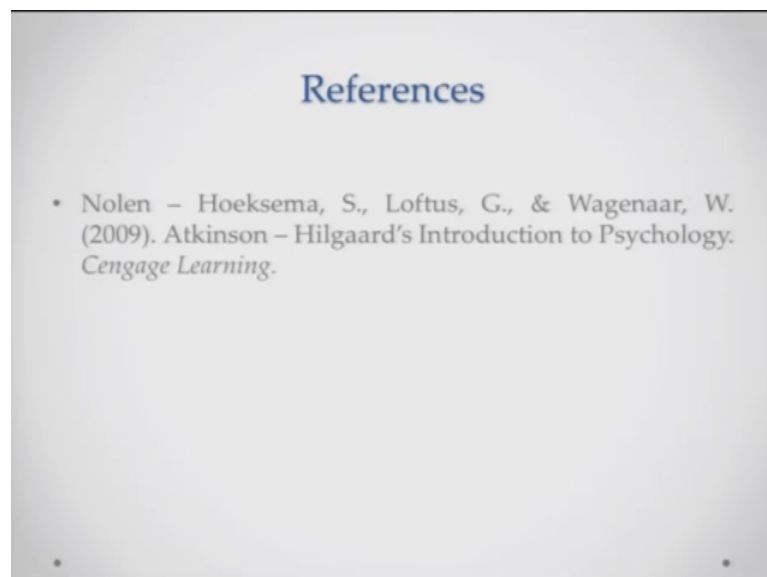
And, what happens is that these are the things that are kind of getting entrenched in the way the child is looking at the world. So, he will he will probably at the end of the day not know any other way to look at information in a particular way. So, he does not really he is not really developed that openness he is not really developed that you know a perspective that you know this is probably wrong and this should not be done or there are other ways of living and behaving you know which are contrary to these kind of things. So, this is something very important when you are talking about you know how social roles influence a person's development.

Now, finally, and there is this cognitive development theory. The cognitive development theory again I am still talking about social development it says that children develop mental skills and they interact with their environments in particular ways and that they learn one set of rules for male behaviors and one set of rules for female behaviors. Again, just complimenting this whole idea of gender identity and gender roles he says that it is

not only social roles that are being imposed it is again as I was saying though you know the cognitively you start understanding things as given, cognitively you start understanding that this is a given ok, this is how a boy should behave this is how a girl should behave and this is a given this is basically how my reasoning tells me that I should behave not really only social role, but mentally cognitively I have just started seeing the world in this you know in these glasses.

So, all of these kind of things you know things we have been talking about Freud's psychosexual stages or Erikson's psychosocial stages or if you look at Bandura's social cognitive theory you know ah. All of these things kind of tell us that this is what I was referring to when I was talking about you know the nature versus nurture part. Nature part biological development etcetera was one story, this is an entirely different story and this is a story that is influenced and you know kind of a affected a lot by a by starting from immediate caregivers the parents then to a slightly larger families relatives etcetera and then to the society at large. So, this is basically what the nature and nurture a question kind of leads us to.

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- Nolen – Hoeksema, S., Loftus, G., & Wagenaar, W. (2009). Atkinson – Hilgaard's Introduction to Psychology. *Cengage Learning*.

So, this is all from me about development we have talked about biological social development we have talked about cognitive development as well. In the next lecture onward, I probably take one of the very important cases from the cognitive development

profile. I will talk to you about memory and stuff and how memory develops during the lifespan of the individual.

Thank you.