

Lecture #27: Basic Processes of Development

- **Jean Piaget** – A notable Swiss scientist who studies the development of cognition in children until his death in 1980.
 - His most important contribution was to show us that children of different ages understand the world in ways that are often very different from the way adults understand it.
 - An experiment by Piaget makes this point well.
 - Children of different ages were shown three small three-dimensional replicas of “mountains” arranged on a table top. On the other side of the table, a doll was seated. The children were asked to look at the mountains and then were asked to indicate which picture from several showed the mountains as the doll would see them.
 - 6 year olds could not do it at all, some 7 and 8 year olds could, and children 9-11 years of age had no trouble at all.
- We are in a constant state of change throughout our lives. When we ask ourselves who we are, we think of ourselves in terms of who we are now. But, we have been many different people in our lifetime: an infant, a child, a teenager, a young adult, a mature person, and an aged person.
- To understand ourselves fully, we must understand the process of **development** – the predictable changes in behavior associated with increasing age.
- **Developmental Psychology** – The field of psychology that focuses on development across the life span.

Basic Processes of Development

- What forces cause us to change as we pass through life? What factors determine whether we grow up to be sports stars, musicians, teachers, doctors, etc.?
- Not all psychologists agree about the factors that play a key role in the process of development.
- **Viewpoints on the factors of development:**
 - **Nature or Nurture?**
 - Some psychological theorists believe that nearly all important developmental changes are controlled by biological factors (Nature).
 - These individuals believe that our behavior develops over time. Comparable to a plant growing.
 - Other theorists believe that the psychological environment is the main influence on our development (Nurture).
 - These individuals believe our behavior is molded by experiences or interactions with our environments.
 - However, the vast majority of psychologists believe that both nature and nurture combine to influence our actions, thoughts, and feelings.
 - Language is a good example of the combination of nature and nurture.
 - There is no question that experience is important in language development. Children will learn to use language only if they are

exposed to language, and they will learn to speak the language to which they are exposed.

- For example, a French child adopted by a Chinese speaking family will grow up speaking Chinese, not French.
- But, a dog or cat will not learn to speak a human language no matter how much they experience it (they do not have human brains).
- In another example, children cannot use a baseball glove correctly unless they have seen others play ball (nurture). But you cannot effectively teach children to do much with a glove until age 3 or 4, after some physical development has taken place (nature).
- **Maturation** – Systematic physical growth of the body, including the nervous system.
 - This is the most important aspect of nature.
 - Although both experience and maturation are important in most developmental changes, maturation is surprisingly important in many specific contexts.
 - For example, experience plays an important role in toilet training (children must be taught to use the toilet), but maturation also plays a key role. Successful toilet training is difficult for most children before at least 2 years. They are simply not mature enough to learn the task.
 - After this, however, children learn to use the toilet fairly quickly.
 - Maturation seems to function in much the same way in intellectual, social, and other areas of development
 - For example, children perform cognitive tasks more quickly and accurately as they grow older, mostly because the myelin coating that speeds neural transmission in the cerebral cortex continues to grow throughout childhood.
- **Early Experience and Critical Periods:**
 - When the Puritans came to America in the 1600s, they brought with them a belief about children that most of us still hold today. They believed that early childhood is the “formative” period for our personalities.
 - We believe that experiences that we have as young children powerfully and permanently shape our adult behavior.
 - Many psychologists believe this today. ***But, is it true that early experiences irreversible form our personalities?***
 - **Imprinting** – A form of early learning that occurs in some animals during a critical period.
 - **Konrad Lorenz** – German psychologist who extensively studied the behavior and development of geese.
 - He wanted to know why young geese followed their mothers in the little, single filed patterns. Do they follow the mother because of an inborn tendency (nature) or do they follow her because of learning (nurture)?

- He found that geese do have an inborn tendency to follow, but that they will follow any moving object they are exposed to after hatching.
 - Lorenz referred to this early learning as *Imprinting*.
- Lorenz discovered that imprinting can only occur during a brief period in the animal's life. He called this period the *critical period* – A biologically determined period in the life of some animals during which certain forms of learning can take place most easily.
- If imprinting does not occur during these critical periods, it probably will never occur.
- There is no evidence to support imprinting occurring in humans, although we do form attachments to our caregivers through prolonged experience with them.
- **Early Social Deprivation:**
 - Studies conducted with monkeys also show the long lasting effects of early experience in a way that seems more relevant than imprinting.
 - **Harry and Margaret Harlow** – carried out a number of studies of the role of early social experiences in development. **Early experiences** – Experiences occurring very early in development, believed by some to have a lasting effect.
 - The Harlow's raised a group of infant monkey in complete isolation for the first few months of life. Later they returned the monkeys to group cages with other monkeys. When the monkeys reached adulthood, they were placed in breeding cages with another monkey of the other sex.
 - It was then that the Harlow's noticed that the social, sexual, and emotional behavior of these monkeys was abnormal.
 - Females raised without early experiences with a real mother appeared fearful and attacked the male when a sexual advance was made.
 - The males raised without these early experiences alternated between being fearful and overenthusiastic.
 - The Harlow's believe that the abnormal experiences for the first few months had a detrimental effect on their social behaviors.
 - When the mother deprived monkeys became mothers themselves, they rejected and even attacked their own families. Some of the mothers even killed their infants.
 - Some psychologists believe that early abnormal experiences have a lasting effect, while others believe that if conditions are made favorable, the early effects may not be permanent.

Variations in Development: Getting There at Different Times

- It is important to understand that it's normal for child development to be variable.

- There are differences between children in their development.
 - It's normal for one child to walk or talk several months before another child.
 - Deviations from the average are not unusual.
 - However, and large variation should be addressed.
- Children vary in the rate of their own development from one period to the next.
 - Children who are shorter than their peers at one point, suddenly become taller than most at another point.
 - A fussy baby can become a calm, happy child.
 - A child who was above average on an IQ test at age 4 may be just average at age 9 or vice versa.

Lecture #28: Stage Theories of Development

- Although all psychologists agree that people change over time, they disagree over how to categorize those changes.
 - One group sees us as changing gradually with age; the other school of thought sees people as going through a series of abrupt changes from one stage to the next.
 - Those who see gradual changes lean more toward a “molding” view. They see most changes due to increasing experience.
 - The other group sees changes as mostly a result of “biological maturation.”
 - This group sees ***stages*** – one of several time periods in development that is distinct from the periods that come before or after.

Stage Theories of Development (an overview)

- ***Piaget's Stage Theory of Cognitive Development:*** Best known stage theory in psychology. Piaget distinguished four major stages of cognitive development. These four stages are the ***Sensorimotor Stage (0-2), the Preoperational Stage (2-7), the Concrete Operational Stage (7-11), and the Formal Operational Stage (11 and on).***

- **Sensorimotor Stage:**
 - Birth to 2 years.
 - The child deals with reality in terms of sensations and motor movements.
 - At this stage, children are unable to reason in mental symbols.
- **Preoperational Stage:**
 - 2 to 7 years old.
 - The child is capable of symbolic thought.
 - Children's thoughts are different than that of adults
 - Often illogical in thought.
- **Concrete Operational Stage:**
 - 7 to 11 years old.
 - Middle childhood years. Children are able to reason in everyway except abstract concepts.
 - For example, cannot reason what justice entails, what infinity is, or understand the meaning of life.
- **Formal Operational Stage:**
 - 11 years old and on.
 - Full adult cognition.
 - Ability to reason using abstract concepts.

Stage Theories of Moral Development

- Two theorists have provided stage theories of moral development that are related to Piaget's theory of cognitive development: **Lawrence Kohlberg** and **Carol Gilligan**.
- **Kohlberg's Theory of Moral Development:**
 - Kohlberg collected data for his stage theory of moral development by presenting boys with moral dilemmas and asking for evaluations of the people and actions involved.
 - In Europe, a lady's was dying because she was very sick. There was one drug that the doctors said might save her. This medicine was discovered by a man living in the same town. It cost him \$200 to make it, but he charged \$2000 for just a little of it. The sick lady's husband tried to borrow enough money to buy the drug. He went to everyone he knew to borrow the money. He told the man who made the drug that his wife was dying and asked him to sell the medicine cheaper or let him pay later. But the man said, "No, I made the drug and I'm going to make money from it." So, the husband broke into the store and stole the drug.
 - Did the husband do the right thing?
 - Kohlberg was interested in the logical process through which people arrived at their answers to moral dilemmas.
 - He concluded that we pass through three major levels of the development of moral reasoning.
 - **Premoral Level:**
 - Young children have no sense of morality as adults understand it.

- They make moral judgments to obtain rewards and avoid punishments.
 - **Conventional Level:**
 - Children make moral decisions on the basis of what they think others will think of them (parents, authority figures, etc.).
 - Make moral decisions based on rules, or conventions, of society.
 - **Principled Level:**
 - Judge actions on the basis of ethical principles rather than the consequences to us (as in the first two stages).
 - Judgments often differ from the rules of society.
 - In the example, the husband used principles reasoning. Is this the right thing to do? Why or why not?
- **Gilligan's Theory of Moral Development:**
 - Suggested that Kohlberg's theory does not always describe the moral development of all. Kohlberg used only boys and Gilligan thought it may be different for girls.
 - She thought that male development began with selfish interests and moved toward greater reliance on abstract principles of justice.
 - She thought that females progress from self interest toward a balance concern for the welfare of self and others.
 - Suggested that females progress through three stages of moral development.
 - **Morality as Individual Survival:**
 - Young children's sense of "right" is what is good for him or her.
 - Young children follow rules to obtain rewards for themselves and to avoid punishment.
 - **Morality as Self-Sacrifice:**
 - Attained after becoming aware of the needs of others.
 - Belief that to be good and to be approved of by others, they must sacrifice their own needs and meet the needs of others.
 - **Morality of Equality:**
 - Views own needs as equal to those of others.
 - Progressed from always believing that they must please others at the expense of their own wishes to a belief that everyone's needs should be met when possible.
 - Sacrifices should be shared equally when the needs of different persons cannot all be met.
 - Evidence suggests that Gilligan overemphasized gender differences in moral reasoning.

Erikson's Stage Theory of Personality Development

- Erikson's stages of personality development are turning points that partially determine the outcome of our personalities.
- **Eight Stages of Erikson's Theory of Personality:**

- ***Basic Trust vs. Mistrust:***
 - 0-1 years old.
 - Either develops a trust of parents/caregiver or develops a deep mistrust of a world that appears unsafe.
- ***Autonomy vs. Shame and Guilt:***
 - 1-3 years old.
 - Learns sense of competence (feeding self, using toilet, playing alone, etc.)
 - Or, feels ashamed and doubts own abilities.
- ***Initiative vs. Guilt:***
 - 3-5 years old.
 - Takes initiative in planning and carrying out plans.
 - Or, develops a sense of guilt over misbehavior when unable to live within parent's limits.
- ***Industry vs. Inferiority:***
 - 5-11 years old.
 - Learns to meet the demands of school and home responsibilities.
 - Or, comes to believe that he or she is inferior to others.