***Infancy and Childhood***

**Maturation** is described as biological growth processes that enable an orderly change in behavior. These changes are influenced and adjusted by experiences.

A lack of neural connections is the reason why earliest memories are rarely earlier than the third birthday. This has been described as "infantile amnesia" (experiences help develop neural connections).

An important piece of research by Rosenzweig and Krech (1984) showed that when some young rats were reared in solitary confinement and others in a playground, those in the playground developed a thicker and heavier brain cortex. This supported the notion that for optimum development, the early years are critical to brain development. In other words, "use it or lose it". It is also important to note that development exists through life as neural tissues changes thus "experiences nurture nature".

Brain **plasticity** refers to the brains ability to reorganize pathways to compensate for the damage; the brains hardware changes with time and can be rewired with new synapses.

Childrens brains are more "plastic" than adults because they have a surplus of neurons. When neurons are destroyed, nearby ones may partly compensate by making new connections.

Both genetics and experience influences the timing of a childs**motor development;**the sequence of this physical development is universal. The text explains how Ugandan children walk earlier than North American children possibly due to the fact that they are constantly carried upright on the back.

***Cognitive Development***

**Cognition** refers to the mental activities associated with knowing, thinking, & remembering. **Jean Piaget** believed that a childs mind develops through series of stages and that children build **schemas**: concepts or a framework that organizes and interprets information. Piaget described then as "mental molds into which we pour our experience"*.*

**Assimilation**is the interpretation of a new experience in terms of existing schemas. For instance, given schema for car, a child may call 4-wheeled vehicles cars*.*

In order to fit in new experiences, Piaget proposed that we **accommodate** or adapt our schemas to incorporate new information. The child realizes that the car schema is toobroad and refines the category*.*

**Piagets proposed 4 stages of Cognitive Development:**

1. **Sensorimotor Stage** (Birth to 2 years old)

* Infants know the world in terms of sensory impressions and motor activities.
* They lack **objective permanence**: the awareness that things continue to exist when not perceived; Baby believes that a toy only exists when he is starring at it and once it is covered, he feels that it is gone.

2**. Preoperational Stage** (preschool to 6 or 7 years old)

* Child learns to use language, but is not able to comprehend mental operations of concrete logic; He lacks the concept of**conservation**: the principle that quantity remains the same despite changes in shape.
* Children are **egocentric**: They are unable to see anothers point of view.
* Preschoolers are better able to follow positive instructions ("walk up the stairs please") than negative ones ("dont run up the stairs please").

3. **Concrete Operational Stage** (7 to 11 years old)

* Children gain mental operations that enable logical thinking about concrete events; they are able to grasp the idea of conservation. For example, they know that into whatever shaped glass a quantity of milk is poured, the quantity remains the same. They are also able to do mathematical transformations (reversing arithmetic operations).

4. **Formal Operational Stage** (12 years and up)

* Reasoning expands from concrete (involving actual experiences) to abstract thinking (involving imagined realities and symbols).
* Children are able to solve hypothetical situations and its               consequences.

***Reflection:***

Researchers believe that although Piagets sequence of development appears correct, they feel that children are more capable and that development is more continuous than Piaget suggested.

***Social Development***

Research shows that infants develop an intense bond with those who care for them; that they prefers familiar faces and voices*.*It shows that after object permanence emerges they develop **stranger anxiety**: the fear of strangers (commonly displayed after 8 months of age).

**Attachment** refers to a childs emotional tie with another person. It is shown by a child seeking closeness to a caregiver (one who is comfortable, familiar, and responsive to the childs needs) and showing distress when separated. Psychologists once felt that attachment was developed through the need for nourishment, but studies prove otherwise.

**Harlows Monkey Studies**: Harry Harlow bred monkey separated baby monkeys from their mothers shortly after birth. Harlow created two artificial mothers ("Harlows Mothers"), one bare wire cylinder with a wooden head, The other was a cylinder wrapped with terry cloth; when reared with the nourishing wire mother and non-nourishing cloth mother, monkeys preferred the cloth mother and concluded that body contact was more important than nourishment.

**Critical period** refers to an optimal period shortly after birth when organisms exposure to certain stimuli or experience produces proper development. For example, the first moving object a duckling sees is labeled "mother", then the duckling follows only it*.* Developmental psychologists believe humans do not have a precise critical period.

**Imprinting** refers to the process by which certain *animals* form an attachment during critical period; humans do not imprint, but becomes attached to what they learn to grow and love.

**Temperament** refers to a persons characteristic emotional reactivity and intensity. Research shows that temperaments endure. \*Note the following research findings:

1. Heredity predisposes human differences; anxious infants have high heart rates and reactive nervous systems; identical twins are more likely to have similar temperaments than non-identical, fraternal twins.

2. Sensitive, responsive mothers have infants who are securely attached while the opposite (those who attend only when they felt like doing so and ignores the child at other times) have infants who are insecurely attached.

3. Anxiety over separation from parents peaks at 13 months of age and gradually declines thereafter.

Developmental psychologist **Erik Erikson** claims that securely attached children approach life with sense of **basic trust**: the sense that the world is predictable and trustworthy. Deprivation of attachment causes withdraw, fear, and other negative consequences. Studies show that most abusive parents have been neglected and battered as children.

Many developmentalists believe that quality infant day care doesnt hinder secure attachment but feel that safe, stimulating day care environments help children to thrive.

It has been shown that divorces place children at increased risk for developing social, psychological, behavioral, and academic problems.

**Self-concept**: sense of ones identity and personal worth. By the age of 12 most have developed a self-concept. Childrens views of themselves affect their actions; *positive self-concept produces confidence, independence, and optimism.*

***Child-Rearing Practices***

**Parenting Styles:**

**Authoritarian parents**: impose rules and expect obedience without discussion.

**Authoritative parents:** demanding, yet responsive; exert control by both setting rules and explaining reasons; encourages open discussion and allow for exceptions when making rules.

**Permissive parents**: submit to childrens desires, make few demands, and use little punishment.

**Rejecting-neglecting parents**: disengaged these parents expect little and invest little.

***Findings***:

* Children of authoritative parents have the highest self-esteem, self-reliance, and social competence.
* Authoritative parenting seems to give children greatest sense of control leading to greater motivation and self-confidence.

***Culture and Child-Rearing***

Social values influence child-rearing practices. Westerners tend to rear their children to be independent and to be true to themselves (individualistic culture) while Asians and Africans who live in communal cultures place a greater importance on obedience, being true to tradition and loyal to your family (collectivist culture).

***Gender and Child-Rearing***

The **Social learning theory** suggests that one learns social behavior by observing and imitating and by being rewarded or punished. For example, a mother scolds her daughter for raising her voice and suggests that she is not being very "ladylike".

The **Gender schema theory** furthers this idea in that it suggests that children learn from their culture a concept of what it is to be male or female is and that they adjust their behavior accordingly.

**Gender identity**: ones sense of being male or female.

**Gender-typing**: the acquisition of a traditional masculine or feminine role.

Studies (twin studies and adoption studies in particular) have shown that nature *and*nurture influence a persons developing personality.