

Advanced Placement Psychology

Chapter 3: The Developing Child

(<http://www.ApPsychology.net>)

Prenatal Development and the Newborn

- At 8 weeks after conception, babies are anatomically indistinguishable; 4/5th month different
- Sex determined by 23rd pair of chromosome
- **X chromosome**: comes from either mother or father; females have two, males have one
- **Y chromosome**: comes from father, paired with x to form male
- Y chromosome stimulates development of male sex organ by producing **testosterone**: most important male sex hormone, but females have it too
- **Gender**: biologically or socially influenced characteristics which people define as male/female
- **zygotes**: fertilized eggs; less than half survive pass 2 weeks
- after 10 days, zygote attach to mother's uterine wall and forms placenta for nourishment, zygote becomes **embryo**: developing human from 2 weeks to second month
- after two months, looks human, called **fetus**: developing human from 2 months to birth
- fetus hears muffled version of mother's voice and prefers it after birth
- harm can come when placenta gets **teratogens**: agents that can harm embryo/fetus during prenatal stage; *a mother who is a heroin addict will have a heroin addicted baby*
- newborns are equipped with reflexes ideal to survival
- **rooting reflex**: reflex, when touched on cheek, to open mouth and find nipple
- perceptual abilities continue to develop during first month, can distinguish mother's odour

Infancy and Childhood

- **maturation**: biological growth processes that enable orderly change in behaviour, could be influenced by experiences
- maturation sets the basic course of development and experience adjust it
- lack of neuron connections reason why earliest memories rarely earlier than third birthday (experiences help develop neural connections)
- Rosenzweig and Krech reared some young rats in solitary confinement and others in playground; found those in playground develop thicker and heavier brain cortex
- For optimum development, early years critical –*use it or lose it*; but development exists through life as neural tissues changes –*experiences nurture nature*
- **plasticity**: brain ability to reorganize pathways to compensate damage; *if laser damaged spot in cat's eye, brain area receiving input from spot will start responding to stimulation from nearby areas in eye*; **brain hardware changes with time** –*can rewired with new synapses*
- children brains most “plastic” –surplus of neurons
- when neurons are destroyed, nearby ones may partly compensate by making new connections
- experience influences motor behaviour
- experience(nurture) before biological development(nature) has limited effect

Cognitive Development

- **Cognition**: mental activities associated with knowing, thinking, & remembering
- Piaget believed child's mind develops through series of stages
- Piaget believed children built **schemas**: concept or framework that organises and interprets info; *mental molds into which we pour our experience*
- **assimilate**: interpreting new experience in terms of existing schemas; *given schema for dog, child may call 4-legged animals doggies*

- to fit new experiences, we **accommodate**: adapting one's schemas to incorporate new info; *child realises doggies schemas too broad and refines category*

Piaget's 4 stages of Cognitive Development

1. Sensorimotor Stage (Birth – 2 years old)
 - Infants know world in terms of sensory impressions and motor activities
 - Lack **objective permanence**: awareness that things continue to exist when not perceived; *Baby believes toy only exists when it is staring at it*
 2. Preoperational Stage (preschool – 6/7 years old)
 - Child learns to use language, but aren't able to comprehend mental operations of concrete logic; *lacks conservation*: principle that quantity remains the same despite changes in shape; *water from tall, thin glass poured into wide, flat glass would be the same*
 - Children are **egocentric**: inability to see another's point of view
 3. Concrete Operational Stage (6/7 – 11 years old)
 - Children gain mental operations that enable logical thinking about concrete events; understands conservation and mathematical transformation (reversing arithmetic operations)
 4. Formal Operational Stage (12 years -life)
 - Reasoning expands from concrete (involving actual experiences) to abstract thinking (involving imagined realities and symbols)
 - Children able to solve hypothetical situations and its consequences
- researchers believe development more continuous than did Piaget

Social Development

- infants develop intense bond with those who care for them; *prefers familiar faces and voices*
- after object permanence, develop **stranger anxiety**: fear of strangers commonly displayed after 8 months of age
- **attachment**: emotional tie with another person; shown by child seeking closeness to caregiver (those who are comfortable, familiar, and responsive to needs) and distress when separated
- psychologists use to believe attachment through need for nourishment, but now consider wrong
- **Harlow's Monkey Studies**: Harry Harlow bred monkeys of which he separates from mothers shortly after birth; in cages were a cheesecloth baby blanket; baby monkeys formed intense attachment to blanket –distressed when taken away; later, Harlow created 2 artificial mothers (“*Harlow's Mothers*”), one bare wire cylinder with wooden head, other a cylinder wrapped with terry cloth; when reared with nourishing wire mother and nonnourishing cloth mother, monkeys preferred cloth mother; concluded body contact more important than nourishment
- **Critical period**: an optimal period shortly after birth when organism's exposure to certain stimuli/experience produces proper development; *first moving object a duckling sees is mother, then follows only it*
- Developmental psychologists believe humans don't have precise critical period
- **Imprinting**: process by which certain animals form attachment during critical period; humans don't imprint, but becomes attached to “known”
- **Temperament**: person's characteristic emotional reactivity and intensity; **temperaments endure**; ex. *easy-going, quiet, placid*
- Heredity predispose human differences; anxious infants have high heart rates and reactive nervous system; *identical twins more likely to have similar temperaments than nonidentical*
- Sensitive, responsive mothers have infants who are securely attached while the opposite (attend only when felt like doing and ignores at other times) have infants who are insecurely attached
- Anxiety over separation from parents peak at 13 months and gradually declines after
- Erik Erikson claims securely attached children approach life with sense of **basic trust**: sense that the world is predictable and trustworthy
- Deprivation of attachment causes withdraw, fear, and other negative consequences; *most abusive parents have been neglected/battered as children*
- Many developmentalists believe quality infant day care doesn't hinder secure attachment
- Divorces place children at increased risk for developing social, psychological, behavioral, and academic problems
- By age 12, most children develop **self concept**: sense of one's identity and personal worth
- Children's views of themselves affect actions; *positive self-concept produces confidence, independence, optimism*

Child-Rearing Practices

- **Authoritarian parents:** imposes rules and expect obedience; *Why? Because I said so!*
- **Authoritative parents:** demanding, yet responsive; exert control by both setting rules and explaining reasons; encourages open discussion and allowing exceptions when making rules
- **Permissive parents:** submit to children's desires, make few demands, and use little punishment
- **Rejecting-neglecting parents:** disengaged –**expect little and invest little**
- Children of authoritative parents have the highest self-esteem, self-reliance, and social competence
- Authoritative parenting seems to give children greatest sense of control which yields motivation and self-confidence

Gender

- **Gender identity:** one's sense of being male or female
- **Gender-typing:** acquisition of a traditional masculine or feminine role
- **Social learning theory:** theory that one learns social behavior by observing and imitating and by being rewarded/punished; *Mother tells daughter that she is being "a good mommy" to her doll*
- **Gender schema theory:** theory that children learn from their cultures a concept of what a male/female is and adjust their behavior accordingly

- Genes and experiences intertwine; we are the product of **interactions** between our genetic predispositions and our surrounding environments

Bibliography

Myers, David G., Psychology Fifth Edition. Worth Publishers, Inc. New York, NY ©1998