

## CH 1

### The Science of Human Development

- developmental study is a science
- researchers follow 5 scientific method steps to avoid unexamined opinions

replication: repetition of a study with different participants

Nature vs. Nurture

- nature: influence of genes people inherit
- nurture: environmental influences affecting development

\*both genes and environment affect characteristics - thinking “how much” not “which one”

life span perspective: takes all phases of life into account (infancy - late adulthood)

Critical Period vs. Sensitive Period

- critical - particular type of development growth must occur now or never
- sensitive - when a certain type of development is most likely to happen or easiest at this time

\*\*these relate to multidirectional development

Multi-contextual Development

psychologist Bronfenbrenner → believed in ecological systems approach (biology plays important role in development)

Bronfenbrenner's 4 ecological systems

- microsystems → basic - individual with family, friends, etc.
- exosystems → individual's relationship with school (institutions)
- macrosystems → broad - influences such as culture and government
- mesosystems → connections among all other systems (e.g. employment (exo) and family (micro))

5th system - chronosystems → “time system” (technology e.g. cell phones)

Multicultural Development

\*culture is as powerful as social construction

difference-equals-deficit-error → belief that people who are different are inferior

\*why the multicultural approach is vital

acculturation: cultural and psychological change when in contact with a new culture (e.g. immigrants in Canada)

- ethnic groups do not have to share culture but often do (share a national origin)
- race is a social construction

epigenetic: effects of environmental forces on the expression of an individual's (or species)

genetic inheritance



## Theories of Human Development

- • Theory is more general while a hypothesis is more specific
- • Developmental theory: a group of ideas, assumptions and generalizations that interpret and illuminate observations made about human growth. It provides a framework for explaining the patterns and problems of development.

## PSYCHOANALYTIC THEORY

- • Psychoanalytic theory: theory of human development that holds that irrational, unconscious drives and motives, often originating in childhood, underlie human behavior
- • Often looked as stage theory because it sees each child going through distinct stages of development
  - o Ex. Learning numbers, then addition, then subtraction...etc.

### *Freud's 5 stages (Psychosexual)*

- • Birth to 1 year: oral stage
  - o Lips tongue and gums are the focus of sexual sensations (sucking, feeding)
- • 1-3 years: anal stage
  - o Anus is the focus (Potty training)
- • 3-6 years: phallic stage
  - o Penis is the pride of males and girls wonder why they don't have one
- • 6-11 years latency
  - o Sexual needs are quiet while they carry on with their lives
- • Adolescence: genital stage
  - o Sexual stimulation and satisfaction in heterosexual relationships
  - o He believed that it lasts throughout adulthood

### *Erikson's stages 8 stages (psychosocial)*

- • Birth to 1 year: trust vs mistrust
  - o Trust that other will give them their needs or develop mistrust about the care for others
- • 1-3 years: Autonomy vs shame and doubt
  - o Children either become self-sufficient or doubt their own abilities
- • 3-6 years: initiative vs guilt
  - o Either want to take in adult-like activities or internalize limits and prohibitions set by parents
  - o Adventurous vs guilt
- • 6-11 years: industry vs inferiority
  - o Children either feel competent and productive to master new skills or feel inferior and unable to do anything as well as they could
- • Adolescence: identity vs role confusion
  - o Trying to figure out who they are
  - o They either establish their sexual, political and vocation identities or are confused about what roles they play
- • Young adults: intimacy vs isolation
  - o Seek out companionship or love or become isolated because of fear of rejection



- • Middle-aged adults: generativity vs stagnation
    - o Contribute to the next generation through meaningful work, creativity or raising a family or stagnate
  - • Older adults: integrity
    - o Seeing life as a meaningful whole or despairing at goals never reached
- \*Erikson was a follower of Freud, but he focused on the relationship of family and culture. They both recognize that their infancy has a huge influence on the human being

## LEARNING THEORY

- • Learning theory: theory of human development that describes the laws and processes by which observable behavior is learned
- • Argues that behavior is the result of social environment and how they are rewarded/punished when they act a certain way

### *Behaviourism*

- • Behaviourism: a theory that behavior can be trained and changed in response to stimuli in the environment
- • Direct opposition to psychoanalytic emphasis on hidden urges

### *Conditioning*

- • Conditioning: processes by which responses become linked to particular stimuli
- • Classical conditioning (respondent conditioning): process in which, over time, a person or animal learns to associate a neutral stimulus with a meaningful stimulus
- • Operant conditioning (Instrumental conditioning): a particular action is followed either by something desired or by something unwanted
- • Reinforcement: an extension for conditioning a particular behavior in which that behavior is followed by something desired, such as food for a hungry animal or a welcoming smile for a lonely person

### *Social learning theory*

- • Social learning theory: extension of behaviourism that emphasizes that other people influence each person's behavior, even without reinforcement. Every individual learns through mimicking other people

## COGNITIVE THEORY (Piaget)

- • Cognitive theory:: a theory of human development that focuses on changes in how people think over time. According to this theory, our thoughts shape our attitudes, beliefs and behaviours
- • Development occurs in four stages: sensorimotor (birth-2 years), preoperational (2-6 years), concrete operational (6-11 years), and formal operation ( 12- adulthood)
- • People seek cognitive equilibrium (state of mental balance)
- • Sometimes, they encounter something new and are confused. The result is cognitive disequilibrium
  - o 2 adaptations
    - § Assimilation: convert new ideas to fit with old idea
    - § Accommodation: convert old ideas to fit new idea



## SYSTEMS THEORY

### *Family systems theory*

- • Family systems theory: every member of a family plays a role and the family is a functioning system (Each member affects each aspect of it)
- • They are a whole
- • They are interdependent – what affects one has an effect on another
- • Reciprocal interaction and feedback – back and forth motion of influence
- • Family establish rules – a common understanding for acceptable and unacceptable behaviours
- • Communication styles
  - o Verbal, nonverbal and contextual
- • Family create certain boundaries
  - o Open systems – have a flexible boundary and are willing to exchange information with other families
  - o Closed systems – unwilling to accept outside information and interactions

## HUMANISM

- • Humanism: ALL people have the same basic needs
  - o Physiological: needing food, water, warmth and air
  - o Safety: feeling protected from injury and death
  - o Love and belonging: having loving friends, family and a community
  - o Esteem: being respected by the wider community as well as by oneself
  - o Self-actualization: becoming truly oneself, fulfilling one's unique potential

\*\*arranged in hierarchy → Maslo's Hierarchy of Needs

- • Must satisfy themselves at a lower level before moving higher

## EVOLUTIONARY THEORY

- • Nature works to ensure that each species does two things: survive and reproduce
  - o Many behaviours evolved to help humans survive for over 100 000 years
- • Example: more people are scared of snakes than scared of cars even though cars kill more people now. In the past, maybe snakes caused a lot of deaths

## CH 2

### **From Conception to Birth**

The beginning of life

- each person begins out as a zygote, single cell
- all composed of DNA (deoxyribonucleic acid)
  - o each molecule is called a chromosome which contains units of instructions called **genes**
  - o myelination alters genes and continues throughout life
  - o 46 chromosomes, which are arranged in 23 pairs



- not in a gamete (otherwise called a reproductive chromosome)
- genes have various alleles which include particular traits that can occur (which can make you unlike any other)
  - collection of genes- genotype
  - person's actual appearance and behaviour- phenotype
- genome is an entire set of genes to make a member of a certain species
- autosomes are inherited by males or females (22 of 23)
  - XX female
  - XY male
    - 120 males for every 100 females

### Twins

- zygote splits completely producing genetically identical cells
- monozygotic twins (identical)
  - don't have the same phenotype, develop their own identities
- dizygotic twins (fraternal)
  - only have half their genes in common

### Genetic Interactions

- additive genes add up and make the phenotype (height, hair curliness, skin colour)
- dominant recessive pattern is when alleles interact and the dominant gene is more influential than the recessive gene
  - if you inherit the recessive gene not present in the phenotype you are a **carrier** of that gene
- special case: X-linked gene if its recessive the factor that is on that gene is critical
  - can be cause of colorblindness
  - 20x more boys than girls

### Zygote to Newborn

- germinal period- first 14 days
  - cells split (stem cells) in which any other type of cell can form
  - differentiation begins/ cells become parts of the body
    - outer cells become placenta, inner embryo
    - implantation into uterus lining
- embryo- 3 to 8 weeks
  - cells become a being (not yet recognizably human)
  - day 14 is the primitive streak (central nervous system, brain, spinal cord developing)
  - 4th week eyes, ears, nose, mouth and blood vessel for heart developing
  - 5th week buds start for the arms and legs
  - “head to tail” - cephalocaudal
  - “near to far”- proximal



- fetus- 9 week until birth
  - 9th week sex organs develop (can be seen through an ultrasound)
  - extreme brain growth and brain cell production which regulates body functions
  - the fetus then reaches **age of viability** or when a preterm newborn may survive
    - increase in preterm birth due to older age, obesity
  - brain development: brain gets folds to fit in the skull, and we have the largest brains out of all mammals
- baby- 38 weeks
  - fetal brain release oxytocin to prepare for the birth
  - oxytocin contracts the uterus back to normal size after birth as well

#### After Birth

- test newborns health using the **Apgar Scale**
  - tests colour, heart rate, cry, muscle tone and breathing
  - tested one minute-5 minutes after birth

#### Newborns

- first day or two after birth that Brazelton neonatal behavioral assessment scale is administered
  - record 46 behaviours and 20 reflexed
    - breathing reflex/maintain oxygen
    - reflexes to maintain body temp
    - reflexes to maintain feeding

#### New Fathers

- experience **couvade** or symptoms of pregnancy and birth
  - weight gain and indigestion
- they should be taking care of the mother's day to day health and care
- role change- they are now taking more time off of work to help with the baby

#### New Mothers

- postpartum depression can occur including inadequateness or sadness
  - baby care feels burdensome
  - should be quickly recognized and taken care of
- parent infant bonding should occur to form a loving connection between the baby and parents
  - skin on skin contact



- kangaroo care- which is holding the baby between the breasts so they can listen to the heartbeat

#### Abnormal Genes and Chromosomes

- chromosomal miscount
  - most common is down syndrome (trisomy 21)
  - characterized by a thick tongue, round face, slanted eyes, slow to develop in language, reach intellectual abilities at age 15

#### Teratogens

- drugs, viruses, pollutants, malnutrition, stress that can all harm a fetus
- behaviour teratogens: can harm the prenatal brain impairing intellectual and emotional functioning
- timing is crucial and can affect the critical period
  - can cause cerebral palsy

Anoxia: lack of oxygen to the brain or in general and can lead to death

- some teratogens have a **threshold effect** which means they are harmless until it reaches a certain level

#### Low birth weight

- defined as anything under 2500g
- very low birth weight under 1500g
- extremely low birth weight under 1000 g
- Causes:
  - preterm birth (3 or more weeks early)
  - small for gestational age (gain weight slowly)
  - maternal malnutrition
- consequences:
  - early death
  - cognitive, visual and hearing impairments

### CH 3

#### GROWTH IN INFANCY

##### Body Size

- newborns lose weight in the first three day of life
- then gain 30g a day for several months
- by 4 months their weight had doubled and a year has tripled
- 24 months 13 kg and added more than 30cm in height
- by 2 years they are half their adult height and, 5th of adult weight, and and four times heavier than at birth
- numbers above are norms: average or standard —healthy babies can still fall above or below due to genetic diversity (chapter 2)
- early check ups are vital for signs of abnormal growth —done monthly



- head-sparing: biological mechanism that protects the brain when malnutrition disrupts body growth —brain is last part to be damaged
- from conception to first 2 years brain grows most —25% of adult weight at birth - 75% adult weight at 2 years

## **Brain Development**

- **Brain Basics**

- neuron: one of billions of nerve cells in the central nervous system, esp. in the brain
- cortex: 6 outer layers of the brain in humans and other mammals —thinking, feeling, and sensing involve the cortex
- prefrontal cortex: the area of cortex at the very front of the brain that specializes in anticipation, planning, and impulse control (inactive the first months of infancy becoming more efficient in childhood and adolescence)
- axon: fibre extends from a neuron and transmits electrochemical impulses from that neuron to the dendrites of other neurons
- dendrite: a fibre that extends from a neuron and receives electrochemical impulses transmitted from other neurons via their axons
- synapse: the intersection between the axon of one neuron and the dendrites of other neurons
- neurotransmitter: brain chemical that carries information from the axon of a sending neuron to the dendrites of a receiving neuron

- **Experiences and Pruning**

- first few months and years after birth rapid growth and refinement of axons, dendrites, and synapses occur —esp. in the cortex
- dendrite growth main reason why the brain weight triples from birth to age 2 (increase 5 fold with 100 trillion synapses at age 2)
- estimated 40 000 new synapses formed every second in infant brain
- postnatal brain growth unusual for mammals —humans have small hips head needs to be small to get baby out therefore acceleration of growth and need to nurture offspring for a decade as brains continue to develop
- transient exuberance: great but temporary increase in the number dendrites that develop in an infant's brain during the first two years
- pruning: process by which unused connections in the brain atrophy and die — increases brain power (use it or lose it)
- intellectual disabilities fail at pruning normally —autism has more rapid brain growth suggesting too little pruning
- too much and too little can be harmful
- Greenough: two categorization schemes
  1. experiencing-expectant information storage includes the environmental information everyone experiences —seeing patterns
  2. experience-dependent stores important specific information unique to the individual —food sources



3. new synaptic connections are made in response to each person's experiences and what needs to be remembered

- **Plasticity of the Brain**

- Plasticity: the ability to be modified or changed —infants raised in environment with minimal sensory stimulation found to have different brain structure and weight than those reared in enriched environments
- ^ advantage: ability to compensate or take over the functions of areas that have been damaged
- ^^ disadvantage vulnerable to impoverished or restricted environments
- sound of language exposed to influences auditory neurons function —first 7-8 months exposed to second language can speak both without accent cause have a larger left brain assists with language acquisition and fluency

- **Harm and Protection**

- parents need to provide a stimulating environment -talking, singing, playing, massaging, and engaging in sensory activities
- cry in response to digestive pain mostly —too immature to stop crying like adults as brain is not under cognitive control because cortex is underdeveloped
- parents respond in anger and shake baby cause shaken baby syndrome (SDS): abusive head trauma, blood vessels in the brain rupture and fragile neural connections break (can cause death)
- study ^: 364 under age 5 injured children 19% died, 55% of survivors suffered long-term neurological damage, 65% visual impairments, 22% no sign of development impacts, 50% caused by biological father, 20% stepfather or partner, 12% biological mother
- self-righting: inborn drive to remedy a developmental deficit —emotional and physical

## **Sleep**

- newborns cannot sleep throughout the night because of brain maturation
- 15-17 hours a day in 2-3 hours segments
- decreases with maturity —2 months 14 1/4 hrs, 3 months 13 1/4, 6-17 months 12 3/4
- social environment has a direct effect on sleep cycle —respond to pre-dawn cries with food and play will wake up early every morning
- pre-term babies doze: transitional sleep and also wake up more cause are hungry every 2 hours
- full-term babies half their sleep in REM sleep: rapid eye movement -flickering eyes behind closed lids, dreaming, and rapid brain waves
- slow-wave sleep or quiet sleep increases by 3 or 4 months -less time alert and awake
- sleep problems more harmful to parents yet can cause less patience and responsiveness to child and lack attention to baby's sleep position causing sudden infant death syndrome (SIDS) (chapter 1)



- where should babies sleep? —close to parents to respond immediately = spoiled or own rooms to cry it out = learn self soothing? pp.102

## **PERCEIVING AND MOVING**

### **The Senses**

- every sense functions at birth —babies need to begin responding to sensory input in order to learn
- sensation: response of a sensory system ( eyes, ears, skin, tongue, nose) when it detects a stimulus
- perception: mental processing of sensory information when the brain interprets a sensation —happens in the cortex
- sensation to perception to cognition
- **Touch and Pain**
  - caressing, swaddling, kissing, massaging, tickling, bouncing, and rocking ways to soothe a baby
  - newborns do feel some degree of pain when undergoing procedures such as circumcision or a broken bone —were thought not to feel as myelination is not complete (myelination speeds the transmission of nerve impulses by insulating the axons)
  - Neonatal Infant Pain Scale to measure: five parameters; facial expression, cry, breathing patterns, movement of arms and legs, and state of arousal
- **Hearing and Seeing**
  - hearing develops last trimester —can hear in the womb
  - develop preference for mothers voice and female voices over males
  - DeCasper and Fife: read Cat in the Hat twice a day 6.5 weeks before birth, when read after birth sucked pacifier faster than those who did not hear story in the womb
  - vision is least mature
  - focus in things 10-75cm away
  - after 2 months infants can stare at faces and after perception and cognition they smile
  - binocular vision is impossible in the womb: coordinating both eyes look cross-eyed or wall-eyed as they are using eyes separately
  - 2-4 months both eyes can focus on single object helping to develop depth perception —visual cliff
- **Smelling and Tasting**
  - develop through amniotic fluid
  - exposed carrot juice amniotic fluid or breast milk preferred carrot flavoured cereal when ate solid food, anise-flavoured products during pregnancy babies showed preference for smell of anise first days of life



- camomile ointment for nipples = preference for camomile smell 2 years later than odourless ointment
- 4 days old can discriminate now mothers breast milk from others —smell
- prefer smell of parents —help them like a bath by getting in tub with baby

### **Motor Skills**

- learned abilities to move some part of the body, in actions ranging from a large leap to a flicker of the eyelid
- **Gross Motor Skills**
  - physical abilities involving large body movements, such as walking and jumping
  - emerge from reflexes
  - cephalocaudal: head-down and proximodistal: centre-out directions
  - 3 months sit propped up, 6 months can sit unsupported
  - 5 months use arms and legs to move forward —affected by culture and amount of tummy time
  - 8-10 months lift mid-sections and crawl
  - not true that must crawl to develop normally
  - dynamic systems underlying motor skills have three interacting elements:
    1. muscle strength
    2. brain maturation
    3. practice
  - walk by one year
- **Fine Motor Skills**
  - physical abilities involving small body movements, especially of the hands and fingers, such as drawing and picking up a coin
  - limited hand-eye coordination 3 months
  - reach, grab, and hold by 6 months —6-9 months practice enthusiastically on objects within arms reach
  - master pincer movement: use of thumb and forefinger to pick up objects by end of first year and throughout second year
  - second year grabbing becomes more selective

### **Dynamic Sensory-Motor Systems**

- sensation and motor skills further three goals:
  1. social interaction
  2. comfort
  3. learning
- prerequisite for growth —staying alive

### **SURVIVING IN GOOD HEALTH**

#### **Better Days Ahead**

- world death rate in first five years of life has dropped 2% since 1990
- due to public health resources



## Immunization

- process that stimulates the body's immune system to defend against attack by particular contagious disease. Immunization may be accomplished either naturally (by having the disease) or through vaccinations (injection)
- vaccination has greatest impact on human mortality reduction
- **Specific Disease**
  - success in immunization include:
    - Smallpox: eradicated 1971, no longer need vaccination
    - Polio: 99% decrease since 1988, few cases arising in 2003, 2012, 2013 due to lack immunization in Africa and Middle East
    - Measles (rubella, rubeola): vaccine in 1963 dropped number of cases from 300 000 to 50 a year in Canada
    - Varicella (chickenpox): Canada vaccination 2004 dropped average of 288 cases to 114
    - cannot be immunized if
      - embryos born deaf, blind, and brain-damaged if pregnant mother contracts rubella
      - newborns, may die from disease that is mild in older children
      - people with impaired immune system (HIV-positive, undergoing chemo, or aged/elderly)
    - herd immunity: vaccination of children stops disease and protects others
  - **Problems with Immunization**
    - causes irritable feverish babies for a few days —distress to parents
    - increase in missed vaccinations due to media coverage
    - MMR (measles, mumps, rubella) vaccination causing Autism been **disproved**

## Nutrition

- **Breast is Best**
  - colostrum: thick, high-calorie fluid from mother's breast —is sterile, always body temperature, and iron and vitamin rich
  - babies get less sick, provides antibodies to disease the mothers is already immune to
  - breast feed exclusively 6 months less likely to become obese
  - especially protective for preterm babies
  - fats and sugars in breast milk are easier to digest and better for the brain
  - quality of breast milk increases to meet demands
  - some cannot breastfeed —HIV-positive or use addictive drugs
  - some HIV-positive in Africa breastfeed as is less likely to get HIV from mothers than risk from dying of infections, diarrhea, or malnutrition
  - 2005 recommended to breastfeed exclusively for first 6 months
- **Malnutrition**
  - protein-calorie malnutrition: condition in which person does not consume sufficient food of any kind resulting in several illnesses, severe weight loss, and death —one third of children in developing nations



- stunting: failure of children to grow to a normal height for their age due to severe and chronic malnutrition
- wasting: tendency for children to be severely underweight for their age as a result of malnutrition
- suffer in three ways:
  1. brains may not develop normally
  2. may have no body reserves to protect them against common diseases
  3. some diseases result directly from malnutrition; marasmus: early infancy when body tissue wastes away, and kwashiorkor: hair thins, skin splotchy, face and legs swell with fluid (edema)
- prevention with prenatal nutrition and breastfeeding, supplement iron and vitamin A
- **Poverty and Nutrition**
  - 14.5% children in Canada live in poverty, 25% Aboriginal children live in poverty
  - risk for lower scores on vocabulary, reading comprehension, arithmetic, and general knowledge, maternal drug abuse, depression, impact motor development, affect emotionally resulting in withdrawal and mistrusting personality, more stress = more cortisol killing brain cells

## INFANT COGNITION

### Sensorimotor Intelligence

- Piaget's term for the way infants think —by using their sense and motor skills— during the first period of cognitive development
- **Stages One and Two: Simple Reflexes and Primary Circular Reactions**
  - stage one: the stage of simple reflexes, focus on themselves
  - stage two: stage of first habits, first acquired adaptations or primary circular reactions —1 month to 4
    - put together 2 separate actions —looking touching etc.
- **Stages Three and Four: Secondary Circular Reactions and Coordination of Secondary Circular Reactions**
  - stage three: 4-8 months, make repeating events last, repeat actions,
  - stage four: 8 months - a year, coordination of secondary circular reactions or new adaptation and anticipation, means to the end, show intentionality, initiation is goal-directed
- **Object Permanence**
  - realization that objects (including people) exist even if they are no longer seen, touched, or heard
  - 8 months age
  - Piaget experiment
    - show a toy then cover it with cloth
    - under 8 months will not look for it
    - immediately given opportunity to search they will, but if have to wait they forget where toy is
    - 2 years object permanence is fully developed



- some discredit Piaget as infants as long as 2-3 months look at the correct hiding spot of the toy
- others argue eye movement/looking and reaching/searching are two different tasks
- Piaget follow-up experiment
  - two cloths A and B
  - place toy behind A child reaches and finds
  - does do several more times
  - then takes from under cloth A and places behind cloth B in front of the infant
  - infant still looks under cloth A for the toy —called A-not-B error
- **Stages Five and Six: Tertiary Circular Reaction and Mental Representation**
  - stage five: 12-18 months, tertiary circular reactions or new means of through active experimentation, become intentional and purposive, referred to by Piaget as little scientists
  - stage six: 18-24 months, new means through mental combinations, use memory, can pretend, think through problem for solution, Piaget differed imitation: sequence in which an infant first perceives something done by someone else and then performs the same action hours or even days later
- **Piaget Re-evaluated**
  - his evidence relied on observable behaviours
  - now have many ways to measure brain activity showing that infants reach the sensorimotor stage earlier than Piaget suggested
  - brain scans for example measure mirror neurons: cells in an observer's brain that respond to an action performed by someone else in the same way that would of the observer had actually performed that action —tested in monkeys

### **Information Processing**

- information-processing theory: a perspective that compares human thinking processes, by analogy, to computer analysis of data, including sensory input, connections, stored memories, and output
- math concepts may begin as early as 6 months
- can tell difference of 8 and 16 dots 6 months, but not between 8 and 12 dots until 9 months
- infant amnesia: adults forget what happened before age 2 —information-processing suggest otherwise
- **Memory**
  - 3 months olds had a string attached from foot to mobile in crib, would kick randomly and realize kicking made it move
  - when reinstalled mobile one week later remember to kick to make mobile move
  - tested 2 weeks later had forgot again
  - suggests infant's have some memory
  - 2 weeks after original learning, were not tied to mobile and couldn't kick legs, just had to watch mobile move —this was a reminder session" experience that



is intended to help a person recollect an idea, a thing, or an experience, without testing whether the person remembers it at that moment

- next day babies tied back to mobile and immediately remember to kick from two weeks ago —needed processing time to retrieve stored memory
- memory in the womb: increased heart rate when heard native language or mother's voice
- memories are evident when:
  - experimental conditions are similar of real life
  - motivation is high
  - retrieval is strengthened by reminders and repetition
- **The Active Brain**
  - 6 month olds had 2 half hour session with novel puppet, which they remembered a month later
  - 15 month olds were shown adult playing with a toy in a particular way, day later were given another toy never seen before they tried to play with as they remembered from the day before —don't just copy what they see they think about it

## LANGUAGE

### The Universal Sequence

- **Listening and Responding**
  - begin to learn language at birth —prefer language mother speaks
  - closely look at facial expressions to understand what being communicated
  - can differentiate from mouth movements native language just by looking at mouth movements by 6 months
  - child-directed speech: high-pitched, simplified, and repetitive way adults speak to infants (baby talk, motherese, parentese) —captures infants attention
  - 4-8 months like their own native music best
- **Babbling**
  - the extended repetition of certain syllables, such as ba-ba-ba, that begins when babies are between 6-9 months old
  - responses from others encourages
  - express concepts with gestures sooner than speech —pointing at 10 months
- **First Words**
  - babies who can hear starting talking at age 12-18 months
  - 6-15 months understand 10 times more words than they can say
  - holophrase: a single word that is used to express a complete, meaningful thought
  - with new perceptual understanding it takes time for verbal output to reflect the neurological advance
  - once reach 50 word vocab, increases to a rate of 50 to 100 words learned per month —naming explosion

### Cultural Differences

- ratio of nouns to verbs varies —english speaking infants use more nouns to verbs than Chinese, or Korean



- ^ Why?
  - Mandarin and Korean, verbs appear at beginning or end of sentence making them easier to learn, unlike English when verbs appear in many different positions in a sentence
  - East Asian emphasis human interaction, North American culture play with a lot of different toys
  - verbs learned more easily if they sound like the action —may be more common in some languages than others
- **Putting Words Together**
  - grammar: all the methods —word order, verb forms, and so on—that languages use to communicate meaning, apart from words themselves
  - 18-24 months two word combinations begin
  - in Canada many infants acquire French and English —bilingual first language acquisition (BFLA)
  - Geneses: debunked three common misconceptions about BFLA
    1. children who are bilingual have greater difficulty in learning grammar than children who speak one language —actually, have similar rates of language development, at least in dominant language
    2. children who are monolingual speak their first words sooner and learn faster than children who are bilingual — actually, say first words at the same time, and similar rates of vocabulary growth
    3. dual-language learner face more communication challenges than monolingual children —actually, have the same number of challenges, but become skilled in interpersonal communication earlier than monolingual children as switching between languages depending on context and preference of person they are talking to
  - mix languages together because they know their parents will understand — sign of cultural adaptation not deficiency

### How Do They Do It?

- **Theory One: They Need to be Taught**
  - Skinner noticed parents praise babbling
  - core ideas of theory:
    - parents are expert teachers, although other caregivers help
    - frequent repetition is instructive, especially when linked to daily life
    - well-taught infants become well-spoken children
- **Theory Two: Culture Fosters Infant Language**
  - sociocultural reason for language: communication
  - talking is a practice that furthers social interaction
  - human are social beings, dependent on others for survival and joy
  - the emotional message of speech is the focus of early communication
  - study: Shur hunter-gatherers living in the Andes, distinguished speech conveying comfort, approval, prohibition, and attention without knowing any of the words said



- 1 year olds learnt vocabulary better when taught directly from person instead of a video of the same person
- **Theory Three: Infants Teach Themselves**
  - innate
  - Chomsky: focused on the similarities in language
    - universal grammar as evidence that born with structure prepares us for speaking
    - language acquisition device (LAD): term for a hypothesized mental structure that enables humans to learn language, including the basic aspects of grammar, vocabulary, and intonation
- **All True?**
  - hybrid theory: perspective that combines various aspects of different theories to explain how language, or any other developmental phenomenon, occurs
  - all three theories have merit
  - hybrid theory explains, acquisition of first words, and learning verbs: perceptual, social, and linguistic abilities combine to make learning possible
  - different aspects of language may have evolved in different ways

## CH 4

### Psychosocial Development

#### Emotional Development

- In the first two years infants progress from reactive pain and pleasure to a period of high emotional responsiveness

#### Early Emotions

- The earliest emotions – called primary emotions – emerge within the first 6 months
  - Pleasure and pain reactions – ex. Infants cry when they are upset
- Smiling and laughter
  - Social smile – a smile invoked by a human face normally first evident in infants about 6 weeks after birth
    - § A developmental milestone – infants are intentionally communicating with others
    - § Usually laugh upon discovering new things
- Frustration
  - Hard crying is a typical reaction when infants are feeling trapped or held in place when they want to explore
  - Anger is a healthier response to frustration than sadness is
  - Sadness is accompanied by an increase of cortisol in the body which is a stress hormone



- Fear in response to a person, thing or situation is evident at around 6-9 months and soon becomes more frequent
- Two common types of fear:
  - o Separation anxiety – cling and crying when a familiar caregiver is about to leave
    - § Normal at age 1, intensifies at age 2, and then usually subsides after that. Still present after that is considered an emotional disorder
  - o Stranger weariness – especially when an unfamiliar person moves too close, too fast

### Toddler's Emotions

- The new emotion that toddlers feel can be considered expressions of selfhood. Such emotions are
  - o Pride, shame, embarrassment and disgust
  - o The difference between shame and embarrassment is that shame stems from a sense of failure but embarrassment is a result of unwanted attention from others
- Self-awareness – realization that a person is a distinct individual whose body, mind and actions are separate from those of other people
  - o Very young infants have no sense of self – arises at about age 1
  - o Proven by a test known as the mirror/rouge test
    - § Infants look into a mirror after a red dot has been put on their noses. Only children older than 1 year touched their own noses with curiosity

### Brain and Emotions

- Many specific aspects of brain development support social emotions
  - o Ex. The social smile appears as the cortex matures

### Growth of the Brain

- Infant's early emotional experience guides the way that they will deal with these emotions in the future. Therefore, can develop constructive or destructive methods
- Culture and parenting styles are very influential for the 'wiring' of the infant's brain
  - o How and when babies are fed and parent's response to infant cries and temper tantrums are influenced by their culture

### Memory

- All emotional reactions depend partly on memory



- o Explains why toddlers are more quickly angered than younger babies, and more likely to resist entering a doctor's office. They have memories of previous events
- Particular people arouse strong emotions
  - o Ex. The social smile becomes a quicker and fuller smile when an infant sees their parents

### Stress

- Excessive stress harms the developing brain
  - o Brain scans of children who were discovered to have been maltreated in infancy show abnormal responses to stress, anger and other emotions
  - o Stress can sometimes modify genes from genetics to epigenetics
    - § Ex. People who were abused had an epigenetic modification functioning of a certain gene
    - § The modified gene caused the glands that secrete stress hormones to be on constant alert, making these individuals more susceptible to anxiety and depression

Temperament: inborn (nature) differences between one person and another in emotions, activity and self-regulation

- Temperament is not the same as personality
  - o Temperamental traits are genetic, while personality traits are learned or acquired by an individual's environment
- Infants temperaments are divided into 4 categories (easy, difficult, hard to classify and slow to warm up) based on the New York Longitudinal Study (NYLS)
  - o Easy children: generally positive in mood, regular bodily functions, adaptable and have a positive approach to new situations, and have a low or medium intensity of response
  - o Difficult children: irregular bodily functions, usually display intense reactions, tend to withdraw from new situations, slow to adapt to new situations, generally have negative moods and cry a lot
  - o Slow to warm up: fairly low activity level, tend to withdraw, slower to adapt to new situations, somewhat negative in mood and have a low intensity of reaction

### The Development of Social Bonds



Synchrony: mutual exchange that requires split-second timing for parents and child to match each other. Parents and infants become attuned to each other

- This relationship usually begins with the adult imitating the child, not vice versa
  - o Ex. Adults rarely begin to smile at their infants until the infants first begin to smile at them

Still-face technique: an experimental practice in which an adult keeps their face unmoving and expressionless in face-to-face interaction with an infant

- i.e. there is no synchrony
- babies frown, fuss, kick and cry in response to these expressionless faces showing the importance of synchrony

Attachment: the lasting emotional bond that infants develop with a caregiver

- Towards the end of the first year, face-to-face synchrony almost disappears
- Attachment overtakes this
- British psychoanalyst and researcher John Bowlby first developed a comprehensive theory to explain attachment
- Children can experience a kind of emotional deprivation from the loss of their mothers and this sense of loss can have lasting negative impacts on their development
- Infant's love for its mother is based more on emotional needs than physical requirements

Signs of Attachment:

- Proximity-seeking: approaching and following a caregiver
  - Maintaining contact: touching, snuggling and holding
  - Mary Ainsworth first developed a way of studying Bowlby's attachment theory by conducting experiments that identified different types of attachment (4 types)
- 1) Secure Attachment – relationship in which children feel comfortable and confident because parents are generally responsive (parents immediately go to their children if they are in distress) and sensitive (parents know why their child is in distress) to their needs. Children learn they can trust their parents for protection and well-being
  - 2) Insecure-avoidant attachment – a pattern of attachment in which an infant avoids connection with the caregiver, as when the infant seems not to care about the caregiver's presence, departure or return
  - 3) Insecure-resistant/ambivalent attachment – a pattern of attachment in which an infant's anxiety and uncertainty are evident, as when the infant becomes very upset at separation from the caregiver and both resists and seeks contact on reunion



- 4) Disorganized attachment – a type of attachment that is marked by an infant’s inconsistent reactions to the caregiver’s departures and return
- Among the general population, almost two-thirds of infant attachments are secure, one-third is insecure and 5-10% is disorganized
  - Ainsworth developed the “Strange Situation” laboratory procedure to measure an infant’s attachment
    - o A laboratory procedure for measuring attachment by evoking infants’ reactions to the stress of various adults’ comings and goings in an unfamiliar playroom
  - Infant attachment can also be measured using surveys and interviews
  - Attachment affects early brain development, ex. Secure children are more likely to be high-achieving schoolchildren and capable parents
  - Environmental factors such as, low SES, divorce, abuse, can affect infant attachment

#### Romanian Orphans

- Researchers looked at thousands of Romanian orphans that were adopted by other countries
- Those that were adopted before 6 months of age fared best as synchrony was established
- For those adopted after 6 or 12 months early signs were encouraging but it became apparent afterwards as most of them had serious emotional or conduct problems. This was due to the lack of attachment and early emotional deprivation
- Extreme early deprivation is very difficult to overcome
  - if biological parents cannot care for their newborns, foster or adoptive parents need to be found quickly so synchrony and attachment can develop

Social Referencing: Infants seeking information about how to react to an unfamiliar or ambiguous object or event by observing someone else’s expressions and reactions. The other person becomes a social reference

- Ex. Caregivers saying “yum-yum” to unfamiliar healthy food to get an infant to try it

#### Fathers as Social Partners

- Synchrony, attachment and social referencing are all apparent in fathers
- Culture affects the amount of time that fathers spend with their infants
- Less rigid sex roles are increasing the caregiving role that fathers are having
- One sex difference that seems to endure though is that mothers engage in more care-giving and comforting and fathers in more high-intensity play

#### Theories of Infant Psychosocial Development



### Psychoanalytical Theory

- Freud: Oral and Anal Stages
  - o First stage of life is the oral stage – mouth is the primary source of gratification
  - o If a child is weaned too early or prevented from sucking a thumb, that child may become an adult with an oral fixation – drinks, chews, bites or talks excessively
  - o Second stage of life is the anal stage – infant’s main pleasure comes from the anus (toilet training)
  - o If toilet training is overly strict or if it begins before the infant is mature enough, the child develops an anal personality and becomes an adult who seeks self-control and with a strong need for regularity in all aspects of life
- Erikson: Trust and Autonomy
  - o First crisis of life is trust vs. mistrust – when infants learn whether the world can be trusted to satisfy basic needs
  - o Infants learn basic trust if the world is a secure place where their basic needs are met
  - o Problems in this stage can result in adults who are suspicious and pessimistic
  - o Second crisis of life is autonomy vs. shame and doubt – begins at 18 months when self-awareness emerges
  - o Toddlers want autonomy (self-rule) over their own actions and bodies
  - o Problems at this stage can create adults who are easily shamed

### Learning Theory

#### 1) Behaviourism

- Emotions and personality are shaped as parents reinforce or punish a child

#### 2) Social Learning Theory

Social learning: infants learn from the people around them

- Believes that gender roles are learned from observation
- Toddlers can express emotions as their parents do
- A temperament such as shyness may be inborn but parents who model interaction will help a withdrawn child become more outgoing

### Cognitive Theory

- Holds that thoughts and values determine a person’s perspective
- Early experiences are important because beliefs, perceptions and memories make them so
- Early experiences help infants develop a set of assumptions that become the framework for later life; known as a working model



- o Working model: a set of assumptions that the individual uses to organize perceptions and experiences
- o Ex. a child might assume that other people are trustworthy and be surprised by an incident that suggests this working model of human behaviour was incorrect. That child will then apply that model to everyone, which can result in their childhood friendships being insecure and her adult relationships being guarded

### Systems Theory

- Infants tended to show more affiliative behaviours, such as smiling, vocalizing, and proffering toys to fathers than mothers
- Even with father's changing roles in society, mothers still spend on average more time with their children

### Humanism

- Must remember that caregivers also have needs in addition to infants and sometimes these needs influence how they respond to infants
- Parents at the highest level are no longer needy for themselves and thus make good caregivers, but most parents are at level 3 or 4
  - o Ex. breastfeeding is the best way to meet an infant's physiological needs but many women stop breastfeeding after trying for a few days. Her new body was lowering her self – esteem (level 3) causing her to have to fulfill her own needs before her child's

### Evolutionary Theory

- All of infant emotions and actions are evolutionary tools used to attract care from a caregiver in order to survive
- Proximity-seeking, maintaining contact, bonding, synchrony and attachment all fostered human survival
- The hormone oxytocin increase the impulse to bond with others, especially children
- Allocare: the care of children by people other than the biological parents
  - o This helps humans be able to have more children
- Some countries provide pay leave for only mothers, others for fathers and mothers and others provide family leave that can be taken by either parent or shared between them

### Day Care

- Two types of daycare:



- o Family daycare – child care that includes several children of various ages and usually occurs in the home of a woman who is paid to provide it
- o Centre daycare – child care that occurs in a place especially designed for the purpose, where several paid adults care for many children. Usually the children are grouped by age, the daycare centre is licensed and providers are trained and certified in child development
- The important part of all daycare care is to ensure that care is responsive and individualized with stable caregivers

## CH 5

(I've posted some of my notes - if people want to edit them - go for it!)

### **Early Childhood: Body and Mind**

#### ***Body Changes:***

- Growth Patterns
  - o During early childhood, children slim down as the lower body lengthens, and fat decreases as children develop more muscle mass
  - o Average BMI (Body Mass Index) lowest at ages 5-6 than any other time in life
  - o Centre of gravity moves from chest to belly
  - o By age 6, the average child in a developed nation: weighs 18-22 kg, is approx. 100 cm tall, and has adult-like body proportions
- Improved Motor Skills
  - o Children develop gross motor skills (ie. Skipping) and fine motor skills (ie. Drawing)
  - o Mastery depends on maturation and practice
  - o All children are physically active
- Nutritional Challenges
  - o At this age, nutrition important for brain development
  - o Families encouraged children to eat, protecting them against famine, however children in developing nations at risk from eating too much of the wrong foods, leading to nutrient deficiencies
  - o *Overweight:*
    - § Cultural practice of encouraging children to eat now destructive – children are over-eating
    - § Canadian obesity rates catching up to American obesity rates
    - § Children get much less exercise today than their grandparents did
  - o *Nutritional Deficiencies:*
    - § Most children consume more than enough calories – not always enough nutrients (ie. Calcium, iron and zinc)
  - o *Allergies:*



- § Around 3-8% of all young children have a food allergy, usually to a healthy, common food
  - § Due to allergies, Federal regulations put into place to label 10 “priority allergens” (peanuts, tree nuts, milk, seafood, eggs, soy, wheat, sesame seeds, mustard and sulphites)
  - o *Obsessions:*
    - § Around age 3, some children go through a “just right” stage – they want their food in a particular way, and won’t eat certain foods – this wanes around age 5
  - o *Oral Health:*
    - § Tooth decay can occur from too much sugar and too little fibre in their diet
    - § Tooth brushing and trips to the dentist should occur even before age 3
- **Avoidable Injuries**
  - o Two to six year olds at greatest risk for injury than older children due to their limited physical coordination and cognitive abilities (judging whether an activity is safe)
  - o Canada – unintentional injuries kill more children and youth (ages 1-14) than all diseases combined
  - o Death rates from unintentional injuries among children and teens 3-4 times higher in Aboriginal communities than elsewhere in Canada
  - o Canadian Paediatric Society (CPS) 6 recommendations to reduce number of deaths among Aboriginal children:
    - § Focus on surveillance
    - § Improve education
    - § Strengthen advocacy
    - § Reduce barriers
    - § Evaluate initiatives
    - § Provide resources
  - o *Environmental Hazards:*
    - § Pollutants can harm young, growing brains and bodies more so than older, developed ones (India example – asthma)
  - o *Harm Reduction:*
    - § 3 levels of harm reduction apply to every childhood health and safety issue
      - Primary prevention – structure the environment to make harm less likely
      - Secondary prevention – averting harm in high-risk situations or for vulnerable individuals
      - Tertiary prevention – after harm has occurred, limiting potential damage

***Brain Development:***



- By age 2, most neurons connected to other neurons – 2-year olds’ brain already 75% of adult weight; 6-year olds’ brain 90% adult weight
- The Maturing Cortex
  - o Human brains continue to develop until early adulthood (even though most of brain present and functioning by age 2)
  - o Between ages 2-6, neurological increases in cortex regions of brain noted (planning, thinking, social awareness, language all occur here)
  - o One part of cortex, the prefrontal cortex, larger in humans than any other creature – considered the “executive” of the brain, planning, prioritizing and reflection occur here
    - § Allows young children to plan ahead, or think of experiences they’ve had
- Speed of Thought
  - o Myelination, the addition of a fatty coat (myelin) on axons of the neurons, is the main reason for increases of brain weight after infancy
  - o Rapid naming of letters and objects is only possible when myelination is extensive – the speed of thought from axon to neuron increasingly important when several thoughts and actions must occur in rapid succession
  - o Younger children’s brains have less myelination than older children
  - o *Impulsiveness and Perseveration:*
    - § Neurons only have 2 kinds of impulses: on-off, or activate-inhibit
    - § Balance of activation and inhibition is needed for thoughtful children
    - § Most young children have not found the balance between activation and inhibition – impulsive, going from one activity to another
    - § Other children persevere in, or stick to, one thought or action, repeating it at inappropriate times (considered **perseveration**)
  - o *Shapes and Colours:*
    - § Perseveration gradually declines in all children
    - § Example of 3-year olds sorting by shape, not colour, or vice versa (read on page 186)
- Connecting Hemispheres
  - o Corpus Callosum (long thick band of nerve fibers that connects left and right sides of the brain) – grows and myelinates rapidly during early childhood
  - o Growth of corpus callosum makes communication more efficient within brain, and allows children to coordinate both sides of body
  - o Failure of corpus callosum to mature is one of several possible causes of autism
  - o Left side of brain – controls right side of body, has areas dedicated to logical reasoning, detailed analysis and the basics of language
  - o Right side of brain – controls left side of body, has areas dedicated to emotions, creativity, and appreciation of music, art and poetry
  - o Both sides of the brain are involved in almost every skill – the “left-right” distinction is exaggerated – however, each side specializes, being dominant for certain functions



- o Left-handed people tend to have a thicker corpus callosum
- Emotions and the Brain
  - o Limbic system – major brain region for emotions
  - o 3 major areas of the limbic system:
    - § Amygdala – small structure deep in the brain (size of an almond), registers positive and negative emotions, especially fear. Increased activity of this part of the brain is one of the reasons a child may have nightmares or ‘unreasonable’ fears
    - § Hippocampus – located beside amygdala – central processor of memory, especially for locations – memories for location in early childhood fragile due to development of this region of the brain still occurring
    - § Hypothalamus – receives arousing signals from amygdala and (usually) dampening signals from the hippocampus – then produces cortisol and other hormones that activate parts of the brain and body
  - o Children watch their parent’s emotions while their limbic system develops, and learns how to respond to situations with the ‘correct’ emotion

***Thinking During Early Childhood:***

- Piaget: Preoperational Thought
  - o Early childhood the time for *preoperational intelligence*, the 2<sup>nd</sup> of Piaget’s four stages
    - § Called this due to children not yet using logic and reason
  - o Past *sensorimotor intelligence*, children can think in symbols, not just senses and motor skills
  - o Symbolic thought – the concept that an object or word can stand for something else – allows for language explosion
  - o Animism – the belief of many young children that natural objects (ie. Tree, cloud) are alive, and that non-human animals have the same characteristics as the child
  - o *Obstacles to Logic:*
    - § Piaget outlined 4 limitations that make logic difficult until about age 6:
      - Centration – the tendency to focus on one aspect of a situation to the exclusion of all others
        - o Egocentrism – a particular type of centration that literally means “self-centeredness” – these children contemplate the world from their personal perspective – not necessarily selfishness though
      - Focus on appearance – a young child ignores all attributes that are not apparent; these children are easily tricked by the outward appearance of things
      - Static reasoning – children believe the world is unchanging, always in the state in which they currently encounter it



- Irreversibility – children fail to recognize that reversing a process sometimes restores whatever existed before
  - o *Conservation and Logic*:
    - § Conservation – the notion that the amount of something remains the same (is conserved) despite changes in its appearance
- Vygotsky: Social Learning
  - o Vygotsky emphasized influence of culture
  - o *Children and Mentors*:
    - § Children learn through guided participation, as older and more skilled mentors teach them
    - § Parents are the first guides – teachers, other family members and peers are mentors as well
    - § According to Vygotsky, children learn because their mentors: present challenges, offer assistance (without taking over), add crucial information, encourage motivation
  - o *Scaffolding and Overimitation*:
    - § Zone of Proximal Development (ZPD) – intellectual arena where new cognitive and physical skills can be mastered
      - Vygotsky believed each individual learns within their ZPD
    - § Scaffolding – temporary support that is tailored to a learner’s needs and abilities and aimed at helping the learner master the next task in a given learning process
      - How and when children learn depends on willingness of mentors to provide scaffolding
    - § Overimitation – tendency of children to copy an action that is not a relevant part of the behaviour to be learned; common among 2 to 6 year olds when they imitate adult actions that are irrelevant and inefficient
      - Stems from child’s eagerness to learn from mentors
- Children’s Theories
  - o Recognized that children work to understand their world – they don’t simply gain words, skills and concepts – they develop theories to help them understand and remember
  - o *Theory-Theory*:
    - § Theory-theory – the idea that children attempt to explain everything they see and hear
    - § Best explanation for cognition in young children is that humans always seek reasons, causes, and underlying principles to make sense of their experiences
    - § Children ask questions, if not satisfied with answer, develop theories
  - o *Theory of Mind*:
    - § Theory of Mind – a person’s theory of what other people might be thinking. In order for a child to have this, they need to realize other people aren’t thinking the same thing as them. Rare before age 4



- Brain and Context
  - o Theory of Mind correlates with maturity of the prefrontal cortex and advances in executive processing

### ***Language Learning:***

- Language is the premier cognitive accomplishment of early childhood
- A Sensitive Time
  - o Early childhood is a sensitive period for language learning – rapidly and easily mastering vocabulary, grammar and pronunciation
  - o Egocentrism an advantage at this age; children don't care what others think of their speech – allows them to rapidly develop language skills
- The Vocabulary Explosion
  - o *Fast Mapping:*
    - § Fast-mapping – the speedy and sometimes imprecise way in which children learn new words by tentatively placing them in mental categories according to their perceived meaning
    - § Language mapping not precise
    - § Begins before age 2, accelerates over childhood, as each new word makes it easier to map other words
  - o *Words and the Limits of Logic:*
    - § Logical extension – closely related to fast-mapping; after learning a word, a child will use it to describe other objects in the same category (ie. “Dalmatian cow” example in text)
  - o *Listening, Talking and Reading:*
    - § Literacy crucial for children
    - § 5 strategies and experiences found to be effective for young children of all incomes and ethnicities
      - Code-focused teaching: in order for children to learn to read, they must “break the code” from spoken to written words – helpful for children to learn the letters and sounds of the alphabet
      - Book-reading: vocabulary as well as familiarity with print increase when adults read to children, allowing questions and conversation
      - Parent education: When teachers and other professionals teach parents how to stimulate cognition, children become better readers
      - Language enhancement: within each child's ZPD, mentors can expand vocabulary and grammar, based on what the child knows and experiences
      - Preschool programs: Children learn from teachers and other children
  - o *Acquiring Basic Grammar:*



- § By age 3, children understand the basics of grammar (as talked about in Chapter 3 – includes structures, techniques and rules that are used to communicate meaning)
  - § Genes affect expressive (spoken or written) language more than (receptive) heard or read) language – thus, some children relatively talkative or quiet because they inherit that tendency, but experience, not genes, determines what they understand
  - § Overregularization – application of rules of grammar even when exceptions occur, making the language seem more “regular” than it is
    - Children applying the rules of grammar when they should not (“mouses”, “tooths”, etc)
- Learning Two Languages
  - o In Canada – 65% of francophones are bilingual, and 18% non-francophones bilingual
  - o *How and Why:*
    - § (I didn’t have any notes here – page 200 if you want to give it a read)
  - o *Language Loss and Gains:*
    - § Language shift – becoming more fluent in the school language than in their home language
      - Fear parents have for their children (if non-English/French speakers)
    - § Balanced bilingual – a person who’s fluent in two languages, not favouring one over the other
    - § Bilingual children and adults are more advanced in theory of mind and executive functioning, however, sheer linguistic proficiency doesn’t necessarily lead to cognitive advances

### ***Early Childhood Education:***

- Homes and Schools
  - o Young children learn both at home and at school
  - o Quality of the home environment affects health, cognition and social skills
  - o Many different levels of support for children in early childhood – hard to label
- Child-Centered Programs
  - o These programs stress children’s development and growth
  - o Teachers in these programs believe children need to follow their own interests rather than adult directions
  - o Most encourage artistic expression
  - o *Montessori Schools*
    - § Founded 100 years ago by Maria Montessori
    - § Contemporary Montessori schools still emphasize individual pride and achievement, presenting many literacy-related tasks to young children
  - o *Reggio Emilia*
    - § Encourages each child’s creativity in a carefully designed setting



## § Italian

- Teacher-Directed Programs
  - o Stress academics, often one adult to a room of students
  - o Curriculum involves learning the names of letters, numbers, shapes and colours according to a set schedule
  - o Praise and other reinforcements given for good behaviour, and time-outs imposed to punish misbehavior
  - o *Head Start*:
    - § US government funded program for children before Grade 1
    - § Goals have changes over the years, from lifting families out of poverty to promoting literacy, from providing dental care and immunizations to teaching standard English
    - § Initially child-centered, now more teacher-directed
    - § No standard legislation in place in Canada yet, but in 1995, Aboriginal Head Start program established
      - Also community based
      - Involve preschool kids in various activities built around: culture and language, education, health promotion, nutrition, social support and parental involvement
  - o *The Need for Structure in Classrooms*:
    - § Some teachers want to do what they believe is best, resulting in variety of strategies; can lead to confusion of children and parents
- Long-Term Gains from Intensive Early Childhood Programs
  - o Long-term benefits, most apparent after Grade 3
  - o Higher math scores and reading achievement tests
  - o Higher aspirations in adolescence, greater sense of achievement, less likely to be abused
  - o Young adults more likely to attend college and pay taxes than go to jail and/or be on welfare

## CH 6

### Psychosocial Development

#### Emotional Development

emotional regulation: ability to control when and how emotions are expressed

- this is difficult for infants to control emotions

Initiative vs. Guilt (Erickson's 3rd stage)

- when children undertake new skills and activities and feel guilty when they do not succeed in them
- parent's support and enthusiasm is important for children wanting to explore new skills
- children then develop self-concept: cognitive ability to understand that they are separate from others

Motivation

- comes from a person's own desires or from the social context



- **intrinsic motivation:** occurs when someone does something for the joy of doing it
- **extrinsic motivation:** comes from outside the person - when people do something to gain praise

Emotional Balance

psychopathology: an illness or disorder of the mind

Sex and Gender

sex differences: biological differences between males and females (organs, hormones, body shape)

gender differences: differences in roles and behaviours that are prescribed by a culture for male and female

## Chapter 6

### Early Childhood: Psychological Development

Emotional Development:

Emotional Regulation: The ability to control when and how emotions are expressed

Initiative vs Guilt initiative can mean several things, such as saying something new, extending a new ability or beginning a project. depending on the outcome children feel proud or guilty. When parents criticize and hinder children from exploring their environment, children may become dependent, lack initiative, and fail to learn emotional regulation. By age 3 children develop a self concept which is the cognitive ability to understand that they are separate from others. The act of choosing makes children believe they are independent agents. Children are not accurate on their assessment of themselves. At this age a positivity bias encourages children to try unfamiliar activities, makes friends, begin school and so on.

Brain Maturation:

Emotional and cognitive maturation develop together each enabling the other to advance. The capacity for self-control becomes more evident.

Motivation:

motivation (the impulse that propels someone to act) comes either from a person's own desires or from the social context. Intrinsic motivation occurs when people do something for the joy of doing it. Extrinsic motivation comes from the outside the person, when people do something to gain praise. Children often lose their pure love for the games, personal joy and interest are soon replaced by a desire for the rewards.

Cultural and Emotional Control:

most aspects of physical and cognitive growth are the same for all children. On average young girls are advanced in controlling their emotions particularly anger compared to younger boys. Mistreated boys are more likely to externalize and mistreated girls are more likely to internalise. Men are more likely to become antisocial or schizophrenic while women



are more likely to be overwhelmed by anxiety and depression. As a result females have more suicide attempts but males more often kill themselves without the warnings.

Seeking Emotional Balance:

Caregivers try to prevent psychopathology an illness or disorder (pathology) of the mind (psycho). Parents guide children toward an optimal balance between emotional expression and emotional control.

Internalizing and Externalizing problems:

Some people have externalizing problems: their powerful feelings burst out uncontrollably. Other people have internalizing problems: they are fearful and withdrawn, turning distress inward. Emotions may be internalized via headaches or stomach aches.

Gender Development:

Most children are male or female in all three ways; chromosomes, genitals, and hormones.

That is their nature but obviously nurture affects their sexual development also.

Scientists distinguish sex differences which are biological differences between male and females from gender differences which are culturally prescribed roles and behaviours. At age 1 children are able to make gender distinctions this step is called gender identity. At age 4 children reach the next step called gender stability understanding that gender stays the same over their lifetime. Although they are not able to understand that gender is independent of physical appearance (clothing hairstyles etc..) once they come to the full understanding this is the last stage called gender constancy.

Psychoanalytic Theory:

age 3 - 6 phallic stage (named after penis) boys become aware of their sexual organs they masturbate and develop sexual feelings towards their mother and want to kill their father according to the oedipus complex. Every male feels guilty about his incestuous and murderous impulses in defense they develop a conscience called the superego which is quick to judge and punish. During the phallic stage children cope with guilt and fear through identification; that is they try to become like the same sex parent.

*Learning theory* teaches that all roles, values and behaviours are learned. Gender distinctions are the product of ongoing reinforcement and punishment as well as social learning.

*Social learning theory* says children model themselves after people they perceive to be nurturing, powerful and yet similar to themselves for young people those people are usually their parents.

A gender schema is the child's understanding of gender differences in the context of the gender norms and expectations of their culture. They tend to see the world in simple terms for this reason their gender schemas categorize male and females as opposites.



*Systems theory* teaches that mothers and fathers play an important role in developing their children's understanding of gender.

*humanism* stresses the hierarchy of needs, beginning with survival, then safety then love and belonging. The final two respect and self actualization are not priorities for people until the earlier ones are satisfied.

*evolutionary theory* holds that sexual attraction is crucial for mankind's most basic urge to reproduce. For this reason male and females try to look attractive to the other sex

## Play

Play is so universally valued that the united nations has explicitly recognized it as a specific right for all children. Social play with peers teaches emotional regulation, empathy, and cultural understanding. Children prefer to interact with peers of their own sex this is called sex homophily. As children become older play becomes more social, influenced not only by the availability of playmates but also the physical setting. There are 5 kinds of play; 1. Solitary play, 2. Onlooker play (a child watches other children play), 3. Parallel play (children play with similar objects in similar ways but not together) 4. Associative play (children interact, sharing material but their play is not reciprocal), 5. Cooperative play (children play together, creating dramas or taking turns).

## Active play

active social play not solitary play correlates with peer acceptance and a healthy self concept and may help to regulate emotions.

Rough and tumble play helps the prefrontal cortex develop, as children learn to regulate emotions, practice social skills and strengthen their bodies.

Drama and pretending another major type of active play is sociodramatic play, in which children act out various roles and plots. Through sociodramatic play children;

-explore and rehearse social roles

-learn how to explain their ideas and convince playmates to agree

-practice emotional regulation by pretending to be afraid,angry,brave and so on

-develop self concept in a non threatening context.

The new media all media can be harmful especially when the context is violent. Social interactions among family members is reduced when a TV is on whether or not any one is watching.

## Caregiving styles

Parents differed on 4 important dimensions

1. Expressions of warmth
2. strategies for discipline
3. communication



#### 4. expectations for maturity

four parenting styles

1. authoritarian parenting - set clear rules and hold high standards, seem cold and rarely show affection
2. permissive parenting - few demands highly nurturing and accepting
3. authoritative parenting - set limits but are flexible kind but firm
4. rejecting - neglecting parenting do not care have low expectations they actively reject their children

children learn most from authoritative teachers

Moral development

With maturity and adult guidance, children develop guilt and self control. That helps them behave in ethical ways.

*Social domain theory*

- the moral domain - deals with issues about rights, justice and the welfare of others such as when a child realises it is wrong to hit someone
- the social conventional domain - deals with arbitrary but commonly agreed upon rules such as raising your hand in class or the need to be punctual for classes or appointments
- the personal domain - deal with matters of individual choice and preferences, such as clothes you wear or your choice of leisure activities

Nature perspective suggests that morality is genetic an outgrowth of natural bonding attachment and cognitive maturation

Nurture perspective contends that culture is crucial to the development of morality.

Empathy and Antipathy

With increasing social experiences and decreasing egocentrism children develop empathy, an understanding of other people's feelings and concerns, and antipathy, dislike or even hatred.

Empathy is a necessary emotion to prosocial behaviour, extending helpfulness and kindness without any obvious benefit to oneself. Prosocial behaviour seems to result more from empathy than from cognition, more from emotional understanding than from theory of mind.

Antipathy can lead to antisocial behaviour such as deliberately or unintentionally hurting another person including people who have done no harm.

Four types of aggression

1. instrumental aggression - when they want something and try to get it without thinking
2. reactive aggression - when a child reacts to aggression
3. relational aggression - (usually verbal) destroys the target's self esteem and disrupts the victim's social networks



4. bullying aggression - the intent is to dominate someone else.

Discipline:

Physical Punishment - succeeds at the moment because it stops misbehaviour but isn't a good solution the lesson being that "might makes right."

Psychological control - where shame, guilt and gratitude are used to control their behaviour. may reduce academic achievement and emotional intelligence

Time out - most used technique that requires a child to sit quietly without toys or playmates for a short time.

Explanation - when parents talk extensively with the child helping the child understand why his or her behaviour was wrong

Maltreatment - refers to all intentional harm to, or avoidable endangerment of, anyone under 18 years old. Includes both child abuse which is deliberate action that is harmful to a child's physical emotional or sexual well being and child neglect which is a failure to meet a child's basic physical or emotional needs.

Reported maltreatment - authorities have been informed

Substantiated maltreatment - a reported case has been investigated and verified.

Often the first sign of maltreatment is delayed development such as slow growth, immature communication, lack of curiosity or unusual social interactions.

Children seem to suffer most if their parents seem to love them less in comparison to their neighbours.

Adults who were severely maltreated often engage in self destructive behaviours such as drug or alcohol abuse eating disorders or violence.

The employment rate of mistreated children once grown is 14 percent less than the average person.

Whenever a child is legally removed from an abusive or neglectful home and placed in foster care permanency planning must begin to find a family to nurture the child until adulthood.

The most common type of foster care in north america is kinship care where a relative takes over parenting responsibilities.

### **CH 7: Middle childhood: the period between early childhood and early adolescence, approx. from ages 6-11**

- Genetic and environmental factors safeguard middle childhood from sickness
- Genes primarily protect children who have already survived the hazards of birth and early childhood so they can live long enough to reproduce



- Growth is slow and steady at this age level
- Heart/lungs also grows stronger
- Fewer children experience anemia due to medical care and immunization

### **Physical Activity**

- The level of physical activity of children in middle childhood affects both their mental and physical health

Benefits of physical activity:

- better overall health
- less obesity
- appreciation of cooperation and fair play
- improved problem solving abilities
- respect for teammates

Play sports in middle school also has negatives...

- Loss of self esteem
- injuries
- reinforcements of prejudice
- increased stress
- children can reap the benefits of play without injuries in neighborhoods, schools and sports leagues
- not playing is a consequence of ignoring the rules

Physical and Health Education Canada

- recommends that children receive 150 minutes of physical education a week
- however, only 47% of parents report that their children receive enough activity through physical education classes at school
- about 75% of Canadian children engage in organized sports or physical activities

### **Health Problems**

- Two main examples: obesity and asthma

BMI – the ratio of weight to height

Childhood overweight – usually defined as having a BMI above the 85<sup>th</sup> percentile

Childhood obesity – having a BMI above the 95<sup>th</sup> percentile of children of the same age

- Childhood obesity is increasing worldwide, having more than doubled since 1980
- Childhood obesity is linked to asthma, high blood pressure and elevated cholesterol
- Family habits and eating patterns have changed childhood obesity
- More than 200 genes affect weight
- Advertising for candy or fattening foods is a culprit to childhood obesity



Asthma – a chronic inflammatory disorder of the airways that makes breathing hard

- Rates are highest amongst school children

Hygiene Hypothesis – the immune system needs to tangle with microbes when we are young

- The incidences of asthma increase as a nation gets richer, as seen dramatically in Brazil and China → increasing urbanization

### 3 Levels of Prevention of Health Problems

1. Primary Prevention: requires changes in the entire society
  - a. Better ventilation of homes and less pollution, fewer antibiotics and more outdoor play would benefit everyone
2. Secondary Prevention: decreases illness among high risk children (annual checkups)
3. Tertiary Prevention: treats problems after they appear (ex. For asthma, the proper use of injections or inhalers)

### **Cognition in Middle Childhood**

- Learning is rapid in childhood
- Their cognition becomes more sophisticated

### Piaget and Middle Childhood – Concrete Operational Thought

- piaget called the cognition of middle childhood concrete operational thought, characterized by concepts that enable children to use logic
- By calling this period operational, piaget emphasized productive thinking
- The child is no longer limited by egocentrism and static reasoning, they perform logic analysis

Classification: an example of concrete thinking, the organization of things into groups (ex. Children may sort their building blocks by shapes)

- Piaget devised many experiments to reveal children's understanding
- There is no sudden slip between preoperational and concrete operational logic

### Vygotsky and Middle Childhood

- Educators should consider thought processes, not just the outcomes
- Regards instruction as crucial to cognitive development
- Through the use of guided participation and scaffolding, children move through the zone of proximal development to eventually acquire the necessary skills and knowledge as explained
- Believes that education occurs everywhere, not only in schools → children teach one another → they learn from people that they know in their neighbourhoods etc



- Vygotsky's emphasis on mentoring is insightful, a large study of reading and achievement of grade 3 and 5 children found that high scoring children usually have 3 sources of cognitive stimulation
  - o 1. Their families
  - o 2. pre school programs
  - o 3. grade 1
- In addition, culture affects mentors and methods

### The Parts of The Brain

- Maturing corpus callosum connects the hemispheres of the brain
- Increasing maturation results by 7 or 8 years of age in a “massively interconnected” brain
- These connections are crucial for many activities that children use more parts of their brain than adults do
- Interconnection is also needed for many social skills as well
- An example of a complex task that children must master is to read

Reaction Time - how long it takes the brain to respond to a stimulus, specifically how quickly an impulse travels from one neuron to another to allow thinking to occur

- reactions are quicker with each passing year of childhood
- reaction time relates to every intellectual, motor and social skills in school or not

Selective Attention – the ability to concentrate on some stimuli while ignoring others à this improves at about the age of 7

- selective allows children to listen, answer questions and follow instructions

### Learning Strategies – Robert Siegler

- Leaders of the information processing perspective – studied day by day details of children's understanding of math
- Siegler shows that a child attempts, ignores, had uses, abandons and adopts new and better strategies to solve math problems

Sensory Memory – the component of the information processing system in which incoming stimulus information is stored for a split second to allow it to be processed

Working Memory – the component of the information processing system in which current conscious mental activity occurs (short term memory)

### Advances in Memory from Infancy to Age 11

Under 2 years – infants remember actions and routines that involve them – memory is implicit

2-5 years – words are now used to encode and retrieve memories – explicit memory begins



5- 7 years – children realize that some things should be remembered and they begin to use simple strategies, primarily rehearsal

7 – 9 years – children use new strategies if they are taught them – they use visual clues and auditory hints which provide evidence of the development of brain functions

9-11 years – memory becomes more adaptive and strategic as children become able to learn various memory techniques

Long-term memory - store for minutes, hours, days , months years

- The capacity of long term memory – how much can be crammed into one brain is large by the end of middle school

Knowledge base – or a broad body of knowledge in a particular subject

- 3 factors facilitate increases in the knowledge base: past experience, current opportunity and personal motivation

Control processes – the mechanisms that combine memory, processing speed and knowledge base - they regulate the analysis and flow of information within the system

(ex. Include emotional regulation and selective attention)

- Can allow knowledge in one domain to transfer to another domain (ex. Bilingual children)

Metacognition – sometimes defined as “thinking about thinking” - the ultimate control process because it allows a person to evaluate a cognitive task determine how to accomplish, monitor performance

- Improves with age and experience

### Adjusting to the context

Pragmatics – the practical use of language that includes the ability to adjust language communication according to audience

Immersion – a strategy in which resources in all school subjects occurs in a second language that a child is learning

- In middle childhood, children sometimes successfully master a second language and sometimes fail - success is affected by context
- As described, 6-11 year olds are great learners - they use logic, develop strategies, accumulate knowledge and expand vocabulary

Curriculum – refers to the implicit values and assumptions evident in course selection

Hidden Curriculum – the unofficial, unstated or implicit rules and priorities that influence the academic curriculum and every other aspect of learning in a school



Trends in Math and Science Study – TIMSS – international assessment of the math and science skills of grade 4

#### Gender Differences in School Performance and Provincial Education

- In addition to market, national, ethnic and economic differences, gender differences in achievement scores are often reported
- Academic achievement also differs by age – while girls usually have higher grades overall, at puberty girls' achievements dip, especially in sciences
- Canada does not have a national department of education to set and administer policies across the country – there is education for individual countries
- Since each province and territory is completely autonomous in regard to educational matters, each has the authority to develop its own curriculum, set standards for teacher training
- There are some notable differences between provinces in regards to their each individual education programs
- The government does not administer or sponsor any kind of national test to ensure student achievement

PISA (Programme for International Student Assessment) – a test that measures achievement levels in reading, math and science for 15 year old students

#### Aboriginal Students and Education

- No significant changes to the systems until after the 1960's
- Education became a forefront of the federal election in the 1960's
- Children developed emotional problems
- The damage has continued for generations
- Although many community leaders complained about the schools from the very beginning, nothing substantive happened to change the system until after the 1960's

#### Measuring the Mind

Aptitude: the potential to master a specific skill or to learn a certain body of knowledge

IQ test – intelligence quotient test – a test designed to measure intellectual aptitude or ability to learn in school

Achievement test – a measure of mastery or proficiency in reading, mathematics, writing science or some other subject

- the words, in theory, precede the definitions of aptitude and achievement



- although potential and accomplishment are supposed to be distinct

## CH 8

### Industry and Inferiority

- ❖ One characteristic of school-age children is that they “learn the skills to be increasingly autonomous and industrious” (Pagani et al., 2006, p. 133). Industrious children at this age busily and actively master whatever skills and abilities their culture values.
- ❖ Some of their industry is applied not to skills or collections but to emotions
  - That continues during these years, but something else occurs as well, both at home and in school: Children themselves work on regulating their temper, shyness, honesty, and fear. They develop what is called effortful control in their conscious attempts to master social interactions and emotions
- ❖ **effortful control:** The ability to regulate one’s emotions and actions through effort, not simply through natural inclination.
- ❖ In Erikson’s fourth developmental crisis, industry versus inferiority, children try to master the skills that their culture values. They judge themselves as either industrious or inferior—that is, as competent or incompetent, productive or failing, winners or losers.
- ❖ **industry versus inferiority:** The fourth of Erikson’s eight psychosocial crises, during which children attempt to master many skills, developing a sense of themselves as either industrious or inferior, competent or incompetent.
- ❖ Freud called this period latency, a time when emotional drives are quiet and unconscious sexual conflicts are submerged. Latency is a “time for acquiring cognitive skills and assimilating cultural values as children expand their world to include teachers, neighbors, peers, club leaders, and coaches. Sexual energy continues to flow, but it is channeled into social concerns”

### Self-Concept:

- Every developmental theory and every perceptive observer note that school-age children recognize themselves as individuals, distinct from what their parents and teachers think of them.
- School-age children become increasingly sure of their own minds.
- Because of concrete operational thinking, children engage in social comparison, judging themselves on the basis of what they see in other people.
- **social comparison:** The tendency to assess one’s abilities, achievements, social status, and other attributes by measuring them against those of other people, especially one’s peers.
- They become much more socially aware; thus, it becomes urgent for them to figure out if they are worse or better than their peers. Ideally, social comparison helps children value the abilities they have and abandon the imaginary, rosy self-evaluation of preschoolers.
- However, increases in self-understanding and social awareness come at a price. Self-criticism and self-consciousness tend to rise from ages 6 to 12, and self-esteem dips

Complications of unrealistic self-esteem.



- Self-esteem is tricky. If it is unrealistically high, children may not realize they need to modify their impulses and emotions; thus, effortful control may decline and lower achievement may result (Baumeister et al., 2003). The same consequences may occur if a child is anxious and self-esteem is unrealistically low.
- As one expert explains, “Children develop feelings of self-esteem, competence, and individuality during middle childhood as they begin comparing themselves with peers” (Ripke et al., 2006, p. 261)

#### **SELF-ESTEEM AS A SOCIAL CONSTRUCTION**

- Cultural differences make self-esteem even more complex. Currently in the United States, high self-esteem is considered a positive trait.
- Self-esteem usually protects the fragile self-concepts of 6- to-11-year-olds, but it can be too high, too low, or culturally unacceptable. As with all social constructions, the social context makes a difference.

#### **Resilience and Stress**

- **resilience:** The capacity to adapt well despite significant adversity and to overcome serious stress.

1. Resilience is dynamic, not a stable trait, which means a given person may be resilient at some periods but not at others. Resilience is more evident in middle childhood than earlier.
2. Resilience is a positive adaptation to stress. For example, if rejection by a parent leads a child to establish a closer relationship with another adult, perhaps a grandparent or the parent of a neighbor child, that child is resilient.
3. Adversity must be significant. Some adversities are comparatively minor (large class size, nearsightedness) and some are major (victimization, neglect). Resilient children overcome conditions that overwhelm many of their peers.
  - Some children with abusive or mentally ill parents or other sources of severe stress seem unaffected by their situations, but appearances may be deceiving.
  - **CUMULATIVE STRESS** Stresses accumulate. Many minor stresses (or daily hassles) can become major if they are ongoing. Almost every child can withstand one traumatic event, but several ongoing stresses make coping difficult.
  - Another key aspect of resilience is whether or not a stressed child can develop friends, activities, and skills. For some children, such competencies allow them to blossom once they are old enough to become less dependent on their parents.
  - **SOCIAL SUPPORT AND RELIGIOUS FAITH** A major factor that strengthens a child’s ability to deal with stress is social support.

#### **Families and Children**

##### **Shared and Non Shared Environments**

- Genes affect half or more of the variance for almost every trait, from political beliefs to emotional reactions. The data also show that the influence of shared environment (e.g., children raised by the same parents in the same home) shrinks with age, while the effect of nonshared environment (e.g., friends or schools) increases.



- Not surprisingly, nonshared factors are increasingly significant in adulthood, when brothers and sisters establish their own lives. However, careful longitudinal research has revealed two unexpected findings:

1. Genetic influences persist lifelong and are more evident in adulthood than in infancy.
2. Nonshared environmental factors—particularly peers—are already more influential than are shared ones during middle childhood.

#### Family Function:

- The way a family works and cares for its members is called family function. The most important family function is to provide a safe haven of love and encouragement for every family member
- **family function** The way a family works to meet the needs of its members. Children need families to provide basic material necessities, to encourage learning, to help them develop self-respect, to nurture friendships, and to foster harmony and stability.
- Children thrive if families function for them in five ways:
  1. Provide basic necessities. Children aged 6 to 11 can eat, dress, wash, and sleep without help, but someone must provide food, clothing, and shelter.
  2. Encourage learning. School-age children must master academic and social skills. Families can support and guide their education, via parent–teacher communication, homework help, trips to museums, and so on.
  3. Instill self-respect. As they become cognitively mature, school-age children are self-critical and socially aware. Families help them feel competent and capable.
  4. Nurture peer relationships. School-age children need friends. Families can provide the time and opportunity to form friendships by arranging play dates and other social activities for them.
  5. Ensure harmony and stability. School-age children need protective and predictable family routines; they are troubled by conflict and change.

#### Family Structure

- **family structure:** The legal and genetic relationships among relatives living in the same home; includes nuclear family, extended family, stepfamily, and so on.
- **nuclear family:** A family that consists of a father, a mother, and their biological children under age 18.
- **Stepfamilies** Some stepfamilies are formed when a childless man or woman marries someone with children from another relationship
- A more complicated stepfamily structure is the **blended family**, in which both members of a newly married couple have offspring from earlier relationships.
- **blended family:** A stepparent family that includes children born to several families, such as the biological children from the spouses' previous marriages and the biological children of the new couple.
- **extended family** A family consisting of parents, their children, and other relatives living in one household.
- **single-parent family** A family that consists of only one parent and his or her children under age 18.
- **polygamous family** A family consisting of one man, several wives, and the biological children of the man and his wives.



## **Family Trouble**

Regardless of structure, any family can function well—or poorly. A family that does not support all its members is called dysfunctional. In every nation and with every type of family, three factors increase the likelihood that a family will be dysfunctional:

low income, low stability, and low harmony.

LOW INCOME Family income correlates with function. Directly or indirectly, poverty makes it more difficult for parents to provide all five of the functions discussed earlier.

INSTABILITY Children in middle childhood prefer continuity. They may be upset if they are sent to a new school, if a new baby is born, or if an older sibling moves out. Adults might not realize that these transitions affect schoolchildren.

HARMONY Closely related to stability is harmony, which is why those two characteristics are included together in item 5 on the list of family functions. Parents who habitually fight are also more likely to divorce, move, and otherwise disrupt the child's life.

## **SOCIAL-COGNITIVE CONNECTIONS**

In general, a child's interpretation of a family situation (poverty, divorce, and so on) determines how that situation affects him or her. Some children consider the family they were born into a temporary hardship; they look forward to the day when they can break free and live on their own. Other children feel responsible for whatever happens. This is called parentification, as children assume a parental role and try to take care of everyone else in the family, including the adults.

## **The Peer Group:**

- Getting along with peers is especially important during middle childhood, “central to living a full life and feeling good”

## **The Culture of Children**

Remember from Chapter 1 that culture includes habits and assumptions as well as more obvious manifestations such as clothing and food. Each age group has its own culture, but the culture of children is particularly noteworthy. **The culture of children** includes the rules and behaviors that are passed down to younger children from slightly older ones; it includes not only fashions and gestures but also values and rituals.

**culture of children:** The particular habits, styles, and values that reflect the set of rules and rituals that characterize children as distinct from adult society.

Compared with 6-year-olds, when it comes to friendships, 10-year-olds do the following:

- Demand more of their friends
- Change friends less often
- Become more upset when a friendship ends
- Find it harder to make new friends
- Seek friends who share their interests and values



By the end of middle childhood, close friendships are usually between children of the same sex, age, ethnicity, and SocioEconomic Status. This occurs not because children become more prejudiced over the course of middle childhood (they do not) but because they seek friends who understand and agree with them.

**POPULARITY AND REJECTION** Some children are well liked; others are not.

**SHYNESS AND ARROGANCE** Culture, age, and cohort influence which children are popular

**SOCIAL AWARENESS** Social cognition is the ability to understand human interactions. This ability begins in infancy (with social referencing, discussed in Chapter 4) and continues to develop in early childhood (as children cultivate a theory of mind, discussed in Chapter 5).

**social cognition** The ability to understand social interactions, including the causes and consequences of human behavior.

**REJECTED CHILDREN** Over the years of middle childhood, three distinct types of unpopular children emerge:

- Some are neglected, not really rejected; they are ignored but not shunned.
- Others are aggressive-rejected children—disliked because they are antagonistic and confrontational.
- Still others are withdrawn-rejected children—disliked because they are timid, withdrawn, and anxious.

**aggressive-rejected children:** Children who are disliked by peers because of antagonistic, confrontational behavior.

**withdrawn-rejected children:** Children who are disliked by peers because of their timid, withdrawn, and anxious behavior.

**NOT JUST ONCE OR TWICE** **Bullying** is defined as repeated, systematic attacks intended to harm victims who are unable or unlikely to defend themselves and who have no protective social network. Bullying occurs in every nation, in every community, and in every kind of school—religious or secular, public or private, progressive or traditional, large or small.

**bullying:** Repeated, systematic efforts to inflict harm through physical, verbal, or social attack on a weaker person.

Bullying may be *physical* (hitting, pinching, or kicking), *verbal* (teasing, taunting, or name-calling), or *relational* (designed to destroy peer acceptance). Some victims experience all three types, others just one type. In every case, the critical word in the definition is repeated.



**bully-victim** Someone who attacks others and who is attacked as well. (Also called a provocative victim because he or she does things that elicit bullying, such as stealing a bully's pencil.)

A review of successful ways to halt bullying (Berger, 2007) finds the following:

- The whole school must be involved, not just the identified bullies.
- Intervention is more effective in the earlier grades.
- Evaluation of results is critical.

#### KEYPoints

- School-age children develop a culture of children, with customs that encourage them to be loyal to one another.
- All 6- to 11-year-olds want social acceptance and close, mutual friendships to protect against loneliness, depression, and victimization.
- Bullying occurs everywhere. The frequency and type of bullying are affected by the school, the culture, and the child's age and gender.
- Efforts to reduce bullying often fail; a whole-school approach seems most likely to be effective.

#### **Morality in Middle Childhood**

In middle childhood, children are quite capable of making moral judgments, differentiating universal principles from mere conventional norms. That is one reason why middle childhood is a prime time for moral growth.

Many lines of research have shown that children develop their own standards of right and wrong, guided by peers, parents, and culture

During the school years, children add to these general moral guidelines with ideas about when and how lying, cheating, stealing, and so on are acceptable. For instance, lies are wrong except to protect a friend, and each culture of children has particular rules that govern honesty.

**PRIDE AND PREJUDICE** Children identify with other children, no matter what their background

#### **Advances in Moral Reasoning**

Many forces drive children's growing interest in ethics. As you have seen, these include peer culture, personal experience, and emotion (particularly empathy, which becomes stronger as children's social cognition improves). Intellectual maturation is a fourth influential force, as we will now see.

**KOHLBERG'S LEVELS OF MORALITY** Building on Piaget's stages of development,



Lawrence Kohlberg (1963) described stages of morality that stem from three levels of moral reasoning, with two stages at each level (see Table 8.4):

- Preconventional moral reasoning is egocentric, like preoperational thought.
- Conventional moral reasoning parallels concrete operational thought in that it relates to current, observable practices.
- Postconventional moral reasoning is like formal operational thought; it uses logic and abstractions, going beyond what is concretely observed in a particular society.

**preconventional moral reasoning:** Kohlberg's first level of moral reasoning, emphasizing rewards and punishments.

**conventional moral reasoning:** Kohlberg's second level of moral reasoning, emphasizing social rules.

**postconventional moral reasoning:** Kohlberg's third level of moral reasoning, emphasizing moral principles.

TABLE 8.4 Kohlberg's Three Levels and Six Stages of Moral Reasoning

#### Level I: Preconventional Moral Reasoning

The goal is to get rewards and avoid punishments; this is a self-centered level.

- Stage One: Might makes right (a punishment and obedience orientation). The most important value is to maintain the appearance of obedience to authority, avoiding punishment while still advancing self-interest. Don't get caught!
- Stage Two: Look out for number one (an instrumental and relativist orientation). Each person tries to take care of his or her own needs. The reason to be nice to other people is so that they will be nice to you.

#### Level II: Conventional Moral Reasoning

Emphasis is placed on social rules; this is a community-centered level.

- Stage Three: "Good girl" and "nice boy." Proper behavior is behavior that pleases other people. Social approval is more important than any specific reward.
- Stage Four: "Law and order." Proper behavior means being a dutiful citizen and obeying the laws set down by society, even when no police are nearby.

#### Level III: Postconventional Moral Reasoning

Emphasis is placed on moral principles; this level is centered on ideals.

- Stage Five: Social contract. Obey social rules because they benefit everyone and are established by mutual agreement. If the rules become destructive or if one party doesn't live up to the agreement, the contract is no longer binding. Under some circumstances, disobeying the law is moral.
- Stage Six: Universal ethical principles. General, universally valid principles, not individual situations (level I) or community practices (level II), determine right and wrong. Ethical values (such as "life is sacred") are established by individual reflection and may contradict egocentric (level I) or social and community (level II) values.



**CRITICISMS OF KOHLBERG** Kohlberg has been criticized for ignoring culture and gender. Taking care of family members, even when it means sacrificing oneself, is more important in many cultures than Kohlberg seemed to recognize. His three levels could be labeled personal (instead of pre-conventional), communal (conventional), and worldwide (postconventional)—but family is not included

#### **KEYPoints**

- School-age children develop morals, which are affected by culture, parents, and peers.
- Kohlberg's six stages of moral thought suggest that the highest level of morality is a universal stance that goes beyond the norms of any particular nation.
- Children develop moral standards, which are based primarily on their experiences and on the peer culture.

#### **Definitions**

**Acculturation:** the process of cultural and psychological change that occurs when individuals come into contact with a new culture

**Behaviorism:** a learning theory based on the idea that behaviors can be trained and changed in response to stimuli in the environment

**Case Study:** an in-depth study of one person, usually requiring personal interviews to collect background information and various follow up discussions, tests, questionnaires and so on

**Classical conditioning:** a learning process in which a meaningful stimulus (such as the smell of food to a hungry animal) gradually comes to be connected with a neutral stimulus (such as a particular sound) that had no special meaning before the learning process began (also called respondent conditioning)

**Cognitive Theory:** a theory of human development that focuses on changes in how people think over time. According to this theory, our thoughts shape our attitudes, beliefs and behaviors

**Cohort:** a group defined by the shared age of its members, who, because they were born at about the same time, move through life together, experiencing the same historical events and cultural shifts

**Conditioning:** according to behaviorism, the processes by which responses become linked to particular stimuli and learning takes place. The word conditioning is used to emphasize the importance of repeated practice, as when an athlete conditions his or her body to perform well by training for a long time

**Correlation:** a number that indicates the degree of relationship between two variables, expressed in terms of the likelihood that one variable will (or will not) occur when the other variables does (or does not). A correlation indicates only that two variables are related, not that one variable causes the other to occur



**Critical period:** a time when a particular type of development growth (in body or behavior) must happen if it is ever going to happen

**Cross Sectional Research:** a research design that compares groups of people who differ in age but are similar in other important characteristics

**Cross Sequential Research:** a hybrid research design in which researchers first study several groups of people of different ages (a cross sectional approach) and then follow those groups over the years (a longitudinal approach). Also called cohort sequential research or time sequential research.

**Culture:** a system of shared beliefs, norms, behaviors and expectations that persist over time and prescribe social behavior and assumptions

**Dependant variable:** in an experiment, the variable that may change as a result of whatever new condition or situation the experimenter adds. In other words, the dependant variable depends on the independent variable

**Developmental Theory:** a group of ideas, assumptions and generalizations that interpret and illuminate the thousands of observations that have been made about human growth. A developmental theory provides a framework for explaining the patterns and problems of development

**Difference-equals-deficit error:** the mistaken belief that a deviation from some norm is necessarily inferior to behavior or characteristics that meet the standard

**Differential sensitivity:** the idea that some people are more vulnerable than others are to certain experiences, usually because of genetic differences

**Dynamic Systems Approach:** a view of human development as an ongoing, ever changing interaction between a person's physical and emotional being and between the person and every aspect of his or her environment, including the family and society

**Ecological-Systems Approach:** the view that in the study of human development, the person should be considered in all the contexts and interactions that constitute a life (later renamed bioecological theory)

**Empirical Evidence:** evidence based on data from scientific observation or experiments; not theoretical

**Epigenetic:** referring to the effects of environmental forces on the expression of an individual's or a species genetic inheritance

**Ethnic group:** people whose ancestors were born in the same region and who often share a language, culture and religion

**Experiment:** a research method in which the researcher tries to determine the cause and effect relationship between two variables by manipulating one (the independent variable) and then observing and recording the ensuing changes in the other (the dependent variable)



**Family Systems Theory:** A theory of human behavior that focuses on the family as a unit or functioning system, with each member having a role to play and rules to respect

**Hypothesis:** a specific prediction that can be tested

**Humanism:** a theory that stresses the potential of all human beings for good and the belief that all people have the same basic needs, regardless of culture, gender or background

**Independent Variable:** in an experiment, the variable that is introduced to see what effect it has on the dependent variable (Also called the experimental variable)

**Learning Theory:** a theory of human development that describes the laws and processes by which observable behavior is learned

**Life-span Perspective:** an approach to the study of human development that takes into account all phases of life, not just childhood or adulthood

**Longitudinal Research:** a research design in which the same individuals are followed over time and their development is repeatedly assessed

**Nature:** a general term for traits, capacities and limitations that each individual inherits genetically from his/her parents at the moment of conception

**Nurture:** a general term for all the environmental influences that affect development after an individual is conceived

**Operant Conditioning:** a learning process in which a particular action is followed either by something desired (which makes the person or animal more likely to repeat the action) or by something unwanted (which makes the action less likely to be repeated). Also called instrumental conditioning.

**Psychoanalytic Theory:** a theory of human development that holds that irrational, unconscious drives and motives, often originating in childhood, underlie human behavior

**Race:** a group of people regarded as distinct from other groups on the basis of appearance, typically skin colour. Social scientists think race is a misleading concept, as biological differences are not signified by outward appearance

**Reinforcement:** a technique for conditioning a particular behavior in which that behavior is followed by something desired, such as food for a hungry animal or a welcoming smile for a lonely person

**Replication:** the repetition of a study, using different participants

**Science of Human Development:** the science that seeks to understand how and why people of all ages and circumstances change or remain the same over time



Scientific method: a way to answer questions that requires empirical research and data based conclusions

Scientific Observation: a method of testing a hypothesis by unobtrusively watching and recording participant's behavior in a systematic and objective manner-in a natural setting, in a laboratory, or in searches of archival data

Sensitive Period: a time when a certain type of development is most likely to happen or happens most easily, although it may still happen later with more difficulty. For example, early childhood is considered a sensitive period for language learning

Social Construction: an idea that is based on shared perceptions, not on objective reality. Many age

related terms, such as childhood, adolescence, yuppie and senior citizen, are social constructions

Social learning Theory: an extension of behaviorism that emphasizes that other people influence each person's behavior. The theory's basic principle is that even without specific reinforcement, every individual learns many things through observation and imitation of other people

Socioeconomic Status (SES): a person's position in society as determined by income, wealth, occupation, education and place of residence (sometimes called social class)

Sudden Infant Death Syndrome (SIDS): The term used to describe an infant's unexpected death; when seemingly healthy baby, usually between 2 and 6 months old, suddenly stops breathing and dies unexpectedly while asleep

Survey: a research method in which information is collected from a large number of people by interviews, written questionnaires or some other means

Qualitative Research: research that considers qualities instead of quantities. Descriptions of particular conditions and participants expressed ideas are often part of qualitative studies

Quantitative Research: Research that provides data that can be expressed with numbers, such as ranks or scales

